Public Procurement’s Results
An Analysis of the Dutch situation

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Public procurers can use the public purchasing volume under their control to achieve an endless list of results. However literature does not give a complete overview of these results. The purpose of this research was to create an overview of the results mentioned in literature and subsequently analyzing the Dutch situation using the results found in literature. A survey was sent to practitioners across different public entities in the Netherlands to analyze how much attention was given to certain topics and which results were achieved. To create a more in-depth understanding of how these results were achieved the respondents were also asked to what extent a number of barriers had an influence on their results. Ensuring fairness, compliance with the Dutch rules and regulations and ensuring transparency are the results that are rated as most important. A lack of awareness of possible results of other parties with whom public procurers have to work is perceived as the biggest barrier for public procurement. Future research can be conducted on the relations between barriers and results and the differences across public entities.

Keywords
Public procurement, results, achievements, barriers,
1. INTRODUCTION
Governments are spending significant parts of their budget on public procurement. In the Netherlands this is around 28% of the GDP (The World Bank Group, n.d.) However which results public procurers achieve with this money differs. Whereas in the most basic stage of public procurement the goal is to provide the right goods, more advanced public procurement functions focus on getting value for money as a result. In the current economy one of the main actions through which public procurement can contribute is saving more and supporting the economic recovery (J. Murray, 2009). Public procurement can also be used to achieve broader government objectives (Harland, Knight, & Telgen, 2012). This includes topics such as innovation, sustainability, local development and social return (J. G. Murray, 2001; Sykes, 2012). These are just a view of the possible results and objectives that public procurers have to work with, while some of them are at the least hard to combine or sometimes even conflicting (Sykes, 2012). Combining these different results is in only one of the barriers which public procurers face when trying to achieve results.

Since most research only focuses on a particular set of policy goals, such as sustainability, an overview of the results, that can be achieved and are being used in practice by public procurers, is missing. As far as we know the only overview of public procurement results - published in an academic book or article – has been developed by Sykes, (2012) who gives a short overview of possible results. Also an overview of possible barriers is missing. Next to the gap in literature also practice had interest in getting an overview of the results. The Dutch purchasing organization NEVI and PIANOo organized a conference on putting results first. An analysis of the current situation was needed to provide insight into the reality. This research will try to bridge this gap in literature and practice by providing a complete overview, which may help to further development of public procurement.

This article is organized in the following way. First, the literature, regarding public procurement results and barriers, is discussed. After that, the research question and the methodology are described. With this methodology, the current situation in the Netherlands will be analyzed to see if results found in literature are actually achieved in practice. In the findings and discussion section, the results for public procurement found in this study are described and discussed. In the final section, the main conclusions are drawn.

2. LITERATURE REVIEW
Public procurement is concerned with how money, from tax payers, is spend by public entities to supply works, goods and services (Walker & Brammer, 2009). However not all public procurement is the same, it develops over time. Seven stages of development can be distinguished, ranging from the sourcing and delivering of products and services to the delivery of broader government objectives (Harland, Knight, et al., 2012). This literature review will take this seven stage model from Knight et al. (2012), as shown in Figure 1, as a starting point and build on it to discuss the different results public procurers can contribute to.

2.1 Public Procurement Results

2.1.1 Sourcing and delivering goods and services
The first stage of the public procurement function is to make products and services that are demanded by the public available. The products and services should be delivered in the right quantity, on time and in the right place. In this stage the process behind the procurement and the price and quality are not of great importance, the focus is on the availability of the products or services (Harland, Knight, et al., 2012).

2.1.2 Compliance with legislation/regulation
In the next stage the process behind supplying the goods and services becomes more important. It becomes important to prevent fraud and corruption from a legal perspective. Public procurement in the Netherlands is rule based and has to adhere to European rules and regulations. To align the Dutch law with the European rules and regulations the “Aanbestedingswet 2012” is applicable to all the public entities since April 2013 (PIANOo, 2013a). This law applies for all tenders above the established thresholds (PIANOo, 2013b). With tenders beneath this threshold public procurement has to adhere to the “Aanbestedingreglement werken 2012” (PIANOo, 2013c).

2.1.3 Efficient use of public funds
In the third stage public procurers focus on the amount of money that is spent for getting the needed goods and services (Gershon, 2004; Harland, Knight, et al., 2012). Public procurement spends the money that is paid by the general public and in this stage it tries to use its resources as good as possible. Public procurers use public funds efficient if the input is reduced or the output is increased. The input can be decreased when less work hours or money is spent while maintaining the same amount and level of goods and services. The output can be increased when public procurers get more results while using the same amount of resources or when the quality of a work, product or service improves (Gershon, 2004). To increase the efficiency of public administration public procurement should expand the number, variety and accessibility of their services and goods (Carayannis & Popescu, 2005).

2.1.4 Accountability
Accountability refers to the obligation on the part of public officials to report on the usage of public resources and answerability for failing to meet stated performance objectives (Armstrong, 2005, p. 1). In the fourth stage public procurers should be able to explain that they did well (Harland, Knight, et al., 2012). When public procurers follow the right procedures and protocols no problems should occur (Matthews, 2003).
When deciding to award which supplier wins the contract public procurers can influence the working conditions for the employers of the supplier (Arrowsmith, 2010). Also the protection of human rights and safety can be influenced by procurement (Carter, 2004). Since the procurement of goods has become more global it is also important to consider this internationally (Hiscox, 2007). One of the possibilities to do this and to act more sustainably is to make use of fair trade products. With a more global market is becomes more important to also consider social results on the other side of the world. By using fair trade products real differences can be made in the lives of others. (FairTradeFoundation, 2002). Next to assuring good workings condition for employees public procurement can be used to create jobs. This can support people who are unemployed or people that don’t have job because they have a disability with getting a job, but can also be used to support businesses of minority groups (McCrudden, 2004).

2.1.6.2 Economic results
Public procurement can also be used to develop the economy and to foster innovation (Nijaki & Worrel, 2012). Public procurement can help develop the small and medium enterprises (SME) or local firms and thereby the society. Giving these suppliers a bigger chance to be the selected supplier can be done by making the demands more transparent and by standardizing their procedures and evaluation criteria across public entities (Preuss, 2007). Helping local firms can be also done by stating the use of local (sub) suppliers in the clauses of a contract or by providing information and advice to local companies (Preuss, 2007). A way of helping small and medium local enterprises is to split up an assignment up in smaller lots. There is a growing interest into using public procurement to stimulate innovation (Uyarra & Flanagan, 2010). Different ways through which public procurement can stimulate innovation can be distinguished. By making innovation an essential criterion on which the bids will be judged public procurement can stimulate innovation. Next to only buying innovations as a government, the public procurement function can also stimulate private buyers. There’re two ways of doing this namely through co-operative procurement, where government and private entities buy and foster innovations together and through catalytic procurement where the government is the initial buyer but real benefit is gain from demand from the private market. Another way to foster innovation is by procuring it before it is finished. Hereby the risks of the innovation are split between the government and the supplier (Edler & Georgiou, 2007).

2.1.6.3 Environmental Results
Environmental Preferable Purchasing is defined as buying, “products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose” (EPA, 2000). The first step that has to be taken is to take into consideration if it is really necessary to buy the product or service in the first place (Erdmenger, 2003). If there is no other option other environmental objectives such as having introduced specifications that will lead to buying a green product or considering the full life cycle of a product come into place (Erdmenger, 2003; Preuss, 2007). Public procurement can also develop the market for this kind of products with its purchasing power (Erdmenger, 2003). By increasing the demand, the government can help companies increase their market shares and thereby increase it’s competitiveness but the government can also function as an example, and motivation the private sector to also procure environmental products (Day, 2007).
2.1.6.4 Empirical evidence
The International Research Study of Public Procurement (IRSPP) used the seven stage model of Knight et al.,(2012) to map the findings of their study. They found that public procurers put the most emphasis on the stages 2 to 5. Public procurement related to the broader governmental objectives was ranked lower. When discussing these findings with public procurement professionals, they found that it was considered beneficial to also be concerned with broader governmental objectives. But while public procurement is trying to improve their impacts on these objectives it is at the moment more an exception than a norm. They also found that in some countries there is a focus on higher stages of the model while they are still facing problems in lower stages (Harland, Telgen, & Callender, 2012).

2.2 Public Procurement Limitations
With public procurers trying to achieve the before mentioned results there are certain factors that will hinder their achievements, even though sometimes attention is given to the topic. This literature review will follow the distinction of Thai (2004) who divides the factors that can be perceived as a barrier in two categories; internal and external factors.

2.2.1 Internal factors
Although public procurement has a lot of money to spend, one of the factors that has a big influence on achievements of public procurement is the budget (Walker & Brammer, 2009). Public procurers can only spend the amount of money that is budgeted for this year and project, when however less is spend this year, the budget for next year will be smaller (Harland, Knight, et al., 2012). Next to the budget public procurers have to adhere to the rules and regulations from the Netherlands and the European Union. The general tendency is that procurement follows these rules and an explanation is required when this is not possible (Thai, 2004). Also the workforce of the public procurement function can hinder achievements, having either a lack of education and skills or too much work for the amount of people working. This can either be the own professionalism or the level of the other people working in the public procurement function (Matthews, 2005; Thai, 2004). Public procurers have to deal with a lot of different stakeholders. These stakeholders sometimes have conflicting goals or are not fully aware of the possible results that public procurement can contribute too. This counts for the general public but also for the management (Harland, Knight, et al., 2012; Walker & Brammer, 2009). Also the place public procurement has in the organization and how public procurement is organized has an influence on the results (Thai, 2004).

2.2.2 External factors
Next to these internal results, the markets in which public procurement works and the political environment are the external factors that influence the results of public procurement. Public officials are chosen based on the goals they strive for, however it is not always clear how these goals should be interpreted. But the political goals of different parties can also be conflicting (Harland, Knight, et al., 2012). The market has a big influence on public procurement since it determines the price and quality of the goods and services. With increasing globalization it becomes more difficult to get a good insight in the market and fully consider all the influencing factors (Thai, 2004). The lack of market knowledge can be considered internally, when procurers don’t have the knowledge, or externally, when there is too much information to fully consider everything.

3. RESEARCH QUESTION & GOAL
Since there are so many results to which public procurement can make its contributions the Dutch organizations for purchasing, NEVI and PIANOo, decided to have a conference about putting results first. This research was executed to serve as input for this conference. The objective was to analyze the current Dutch situation on public procurement results. To get an insight in the situation this research identifies which results get attention from public procurers, which results are actually achieved and which barriers are there to achieving the results. A descriptive research approach will be taken while trying to answer these questions.
After reviewing the current literature the following research question has been defined:

- To which results can public procurement contribute and to what extent are these possibilities used or hindered in the Netherlands?

To answer this question the following sub questions will be answered:

- What is the current situation in the Netherlands?
  - To which results does public procurement in the Netherlands give attention?
  - Which results does public procurement in the Netherlands achieve?
  - What are the barriers for public procurement in the Netherlands not to achieve the results they pay attention to?

This research will add to the existing literature by creating an overview of results to which contributions of public procurements can be made. It will help practitioners with identifying for what results they can claim responsibility and which reasons there are for not achieving results.

4. METHODS

In this section, the methodology used to identify the results public procurers pay attention to and achieve from the potential results and the factors that have an influence on this achievement will be described. We first discuss the data collection and research procedure and afterwards the response and data analysis.

4.1 Data Collection

A quantitative research design will be used in order to analyze the current situation in the Netherlands, allowing us to gather data from a large number of people in a short time. First a draft questionnaire was made that used the concepts found in literature as shown in Table 1. This questionnaire was sent to a number of people with whom the wording and importance of questions was discussed. The final questionnaire consisted of four parts:

The first part consisted of general questions about the respondent's procurement organization. The group analyzed consisted out of respondent from all different kinds of public entities like municipalities, government departments, educational entities and police stations. Each of the respondents was asked to identify the public entity for which they work, the department to which public procurement belongs in their organization, if they were part of a purchasing group and what their annual budget for procurement is.

The second part consisted of questions about the topics that received attention from public procurement in the respondents’ organization. The respondents were asked to identify to what extent their organization paid attention to the concepts gathered from the literature. They could score their level of attention using a 5-point Likert scale ranging from never to always.

The third part of the questionnaire consisted of questions about the results that public procurement in the respondents’ organization actually achieved. The respondents were asked to identify to what extent their organization had achieved results in the concepts gathered from the literature review. They could score their level of achievement using a 5-point Likert scale ranging from never to always.

The final part consisted out of questions about the factors that made it hard for public procurement to actually achieve the results. Also for these questions the respondents were asked to score factors identified from literature on their effect using a 5 point Likert scale from not at all to very much. In each of these three last parts respondents had the opportunity to identify other results or barriers that they considered in practice. The questionnaire can be found in Appendix A.

4.2 Response

The questionnaire was made available online and an invitation to respond was sent by e-mail to all members of NEVI, the Dutch purchasing association and to all members of PIANOo, a Dutch organization for purchasing employees of public organizations. The total sample size was around 4.400. A low response rate was expected as not all NEVI and PIANOo members are attending the conference for which this research is executed and thus might not have an interest in cooperating. Next to that most of the members of NEVI work for a private organization. There is some overlap between the respondents in the NEVI and PIANOo database. The total response rate was 181, out of which 29 respondents only filled in the first part of the questionnaire. The total useful response was 152, representing a response rate of 3.45%. Some of the respondents did not answer all questions, when this occurred they were excluded from the analysis of that specific question.

4.3 Data Analysis

The data analysis started by describing the characteristics of the sample. After this the character of results in public procurement in the sample organizations was analyzed. The data was then analyzed more in-depth by examining the degree to which the results vary across different entities of the public sector and across the different budgets. Afterwards factors that are perceived as barriers to achieving results will be highlighted.

The analysis was carried out as follows. First the means of the responses on the 5-point Likert scale were calculated, both for the amount of attention and the actual results achieved, to create an insight in to which topics are most common in the current practice in Dutch public entities. This was calculated for the entire group as a whole and for the separate public entities and the separate budgets. To analyze if there were any significant differences first QQ-plots had to be made to test each variable for normality assumptions. Since this assumption was not met a non-parametric test had to be used. Therefore a Mann-Whitney U test was used to identify the factors that differed significantly across the different public entities for both the amount of attention and the achieved results. This was also done for the different budgets. Afterwards a Wilcoxon rank sum test was performed to analyze if there were significant differences between the amount of attention given to a certain topic and the actual results that were achieved. To get insight in which barriers were identified by the respondents also the mean of the responses and the differences across the entities and different budgets were calculated and analyzed with a Mann – Whitney U test. Respondents had the possibility to give suggestions for other topics and barriers that were not mentioned before but that were important for them. Data coding was used to analyze if there were topics that were mentioned by multiple respondents.
5. FINDINGS

In this section the findings of the research will be shown. First the general characteristics of the respondents will be considered. After that the characteristics of the attention and the results regarding the sample as a whole will be examined, then the differences for both the amount of attention given to a topic and the actual results will be tested per public entity and according to different budgets. After this an analysis of the differences between the amount of attention and the actual achieved results will be performed. The last part shows the most important barriers and the differences across the public entities and the different budgets for the barriers they perceive.

5.1 Data Description

The Dutch public entities analyzed can be described by the characteristics as shown in Table 8 in Appendix B. The biggest group of respondents works for a municipality. Together with the respondents from the central government, they account for the majority of the respondents. Since the categories police and social work shelters both have less then 5 respondents they will be added to the category “others”. There are large differences in the annual budgets of the respondents. The respondents of the central government tend to work with the bigger budgets while the respondents of the offices of dike reeve have to work with the smallest budgets. Procurement is most often a separate department within an organization or it belongs to the facility department. Only in municipalities, procurement is part of the legal department.

5.2 Main Findings

The first column of Tables 2 and 4 provide an overall mean across all the entities questioned and therefore gives an insight into which public procurement topics and results are most common across the Dutch public entities. The highest means, both for amount of attention and results achieved, concern ensuring fairness of the procurement process, followed by compliance with the Dutch laws and regulations and ensuring transparency of the procurement process. The least attention and results are related to the promotion of human rights and safety. Also ensuring fair wages for suppliers’ employees and usage of fair trade products score low on the amount of attention and the results achieved.
5.3 Differences in Amount of Attention

The columns of Table 2 separate the sample according to the different publics entities that filled in the questionnaire. The outcomes from the questionnaire show that there is significant variation in the amount of attention different topics receive across different public entities. Municipalities pay more attention to the creation of jobs (p = 0.001) and to the promotion of the development of local and small/medium enterprises, but less attention is paid to achieving the best value for money (p = 0.028). For public procurers from educational entities ensuring fairness (p = 0.044) and achieving the best value for money (p = 0.028) are more important.

While the offices of dike-reeve pay significantly more attention to achieving the best price-quality ratio (p = 0.033), the creation of jobs receives less attention than it does in the other groups (p = 0.008). Hospitals pay less attention to ensuring fairness (p = 0.029) and transparency (p = 0.043) as well as to the development of local and small/medium enterprises (p = 0.01).

Table 3 shows the means across different budgets. The different budgets show significant difference across a number of topics. Public procurers that have to work with a budget below 10 Million pay significantly less attention to ensuring fair wages for supplier’s employees (p = 0.034) and to the promotion of human rights and safety (p = 0.012). Public procurers, with a budget between 50 and 100 Million, pay less attention to the compliance with Dutch rules and regulations (p = 0.031). Public procurers with a budget of more then 500 Million pay significantly more attention to a number of topics, compliance with Dutch rules and regulations (p = 0.035), achieving the best value for money (p = 0.013), promotion of human rights and safety (p = 0.001) and fostering innovation (p = 0.011).

5.4 Differences in Results Achieved

The columns of table 4 show the means of the results achieved across the different public entities. Significant variation can be found on the results of different topics. Municipalities achieve more results with regard to the creation of jobs (p = 0.003) and the promotion of development of local and small/medium enterprises (p = 0.019), while the results on achieving the best value for money is lower (p = 0.003). Education achieves more on getting the best value for money (p = 0.042). There are significantly lower results, on the creation of jobs, achieved by the offices of dike-reeve (p = 0.016).

Table 5 shows the means of the difference in the results achieved separate for the different budgets. When public procurement has to work with a budget of below 10 Million Euro less results are achieved on ensuring transparency (p = 0.042), the promotion of human rights and safety (p = 0.044) and fostering innovation (p = 0.014). More results are achieved on the compliance of the Dutch rules and regulations by public procurement functions with a budget between 10 and 50 Million. Public procurement functions with a budget above 500 Million achieve more results on achieving the best value for money (p = 0.049), the promotion of human rights and safety (p = 0.001) and the fostering of innovation (p = 0.011).
### Table 4 Cross sector variation in actual results achieved on topic

<table>
<thead>
<tr>
<th>Results achieved</th>
<th>Variable Means per public entity on 5-point Likert Scale; 1 = never - 5 = always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
</tr>
<tr>
<td>Delivery of the right product or service</td>
<td>3.88</td>
</tr>
<tr>
<td>Delivery of the right amount of a product or service</td>
<td>3.68</td>
</tr>
<tr>
<td>On time delivery of a product or service</td>
<td>3.63</td>
</tr>
<tr>
<td>Achieving the best price-quality ratio</td>
<td>3.79</td>
</tr>
<tr>
<td>Compliance with Dutch regulations</td>
<td>4.26</td>
</tr>
<tr>
<td>Ensuring Accountability</td>
<td>4.21</td>
</tr>
<tr>
<td>Ensuring Fairness</td>
<td>4.40</td>
</tr>
<tr>
<td>Ensuring Transparency</td>
<td>4.22</td>
</tr>
<tr>
<td>Achieving the best value for money</td>
<td>3.88</td>
</tr>
<tr>
<td>Ensuring fair wages for suppliers’ employees</td>
<td>2.53</td>
</tr>
<tr>
<td>Job creation</td>
<td>2.72</td>
</tr>
<tr>
<td>Promotion of human rights and safety</td>
<td>2.50</td>
</tr>
<tr>
<td>Usage of Fair Trade products</td>
<td>2.65</td>
</tr>
<tr>
<td>Promotion of local and SME development</td>
<td>3.05</td>
</tr>
<tr>
<td>Fostering innovation</td>
<td>2.84</td>
</tr>
<tr>
<td>Usage and promotion of environmental friendly products</td>
<td>2.91</td>
</tr>
</tbody>
</table>

#### 5.5 Differences Between Amount of Attention and Results Achieved

Analyzing the differences between the amount of attention a topic gets and the results that are achieved show significant differences can be found. There is a difference between the amount of attention given to the delivery of the right product or service (p < 0.001), achieving the best price-quality ratio (p < 0.001), compliance with Dutch rules and regulations (p < 0.001), ensuring transparency (p < 0.001), achieving the best value for money (p = 0.002), ensuring fair wages for suppliers’ employees (p = 0.008), job creation (p = 0.001), promotion of human rights and safety (p = 0.002), fostering innovation (p < 0.001) and the usage and promotion of environmental friendly products. For all these factors the amount of attention is significantly higher than the results that are achieved.

#### 5.6 Barriers to Achieving Results

Table 6 shows the means for how much influence certain barriers have on public procurement achieving results. The biggest effects on the achievements of public procurement are caused by a lack of awareness, both from stakeholders as well as from the management or authorities. Also dealing with conflicting (political) goals is seen as one of the bigger barriers. The least of influence have the people that have to be worked with, both supervisors and colleagues. Also the budget is not perceived as a major barrier.
5.7 Differences in Barriers

Table 6 shows next to the means of the overall group also the means for the separate public entities. Municipalities differ significantly from the other groups on how an insufficient budget influences their achievement (p = 0.002). While the municipalities perceive the budget as a bigger barrier, an insufficient budget is seen as a smaller barrier by the central government (p = 0.009). In hospitals market knowledge is seen as a significantly smaller barrier than in the other entities (p = 0.018). The other public entities perceive lack of awareness of the management or authorities as a significantly higher barrier (p = 0.015).

Table 7 shows the means across the different budget on how the barriers are perceived. Significant differences can be found when analyzing the perceived barriers. While attitude from the market towards certain results has a smaller influence on the public procurement functions that have to work with a budget between 10 and 50 Million (p = 0.027), is it seen as a bigger barrier for those working with a budget between 50 and 100 Million, (p = 0.016). Also the capabilities of the colleagues within the procurement function (p = 0.012) and the supervisors (p = 0.023) are perceived as bigger barriers. For public procurers with a budget over the 500 Million the capabilities of colleagues are a smaller barrier (p = 0.037).

Respondents had the option to identity other topics or barriers however after coding no repetitive topics were found.

6. DISCUSSION

Regarding these findings with public procurers giving high scores for compliance, fairness and transparency we can see that legal aspects are important for almost all procurers. This focus is shown both in the amount of attention that these topics receive and in the results that are achieved. The least attention and results are related to the promotion of human rights and safety. Also ensuring fair wages for suppliers' employees and usage of fair trade products score low on the amount of attention and the results achieved. A reason for these low scores can be the suitability of the project for these topics. Whereas rules and regulations and transparency and fairness can always be considered when procuring something, some projects are not suitable for the support or delivery of broader governmental goals. Although there is a growing emphasis on sustainable public procurement in literature, this topic is rated as the least important by practitioners. Relating this to the 7-stage model of Knight et al., (2012) stage 2-5 can be found applicable for most of the purchases. These findings are consistent with the findings of Harland et al., (2012), who also show higher rankings for stage 2-5 and lower rankings for stage 6 and 7.

The factors under sourcing and delivering of goods are not rated as a topic which receives the most attention or on which the most results are achieved, interesting would be to analyze why this is the case, because this is a topic which is applicable on almost everything.

Municipalities show significantly higher amounts of attention and results achieved on the topic of job creation. This finding is in line with the findings of Brouwer, Andriessen, & Van Wijk, (2011), who state that municipalities have the most experience with creating job through public procurement and most frequently use this possibility. Municipalities have the responsibility to help people with getting a job, which could lead to higher relevance for public procurement to support this (Ministerie van Sociale Zaken en Werkgelegenheid, 2012). Municipalities could be used as an example when stimulating other public entities to achieve more on this topic.
Analyzing the differences between the amount of attention and the results achieved, there are significantly lower scores on a number of topics regarding the amount of attention and the results achieved, showing that public procurement functions that work with the smallest budgets. So with a big budget it is possible to give more attention to and to achieve more results on broader governmental objectives.

Analyzing the differences between the amount of attention and the actual received results shows that for most topics it is hard to convert attention into results. Topics on which the amount of attention is successfully converted into results are the on time delivery of products or services, the right amount of products or services, usage of fair trade products and the promotion of the development of local companies or SME. These topics generally receive less attention, but when these topics are considered they also lead to results. It would be interesting to see why this works so well for these topics.

Table 6 Cross sector variation in barriers

<table>
<thead>
<tr>
<th>Barrier</th>
<th>All</th>
<th>Municipality</th>
<th>Central Government</th>
<th>Education</th>
<th>Office of dike-reeve</th>
<th>Provinces</th>
<th>Hospital</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient Budget</td>
<td>2.45</td>
<td>2.89</td>
<td>2.03</td>
<td>2.07</td>
<td>2.43</td>
<td>2.33</td>
<td>2.80</td>
<td>2.52</td>
</tr>
<tr>
<td>Laws and regulations</td>
<td>2.63</td>
<td>2.64</td>
<td>2.70</td>
<td>2.29</td>
<td>2.14</td>
<td>2.67</td>
<td>3.00</td>
<td>2.80</td>
</tr>
<tr>
<td>Capabilities of Colleagues</td>
<td>2.44</td>
<td>2.47</td>
<td>2.40</td>
<td>2.50</td>
<td>2.57</td>
<td>2.33</td>
<td>2.00</td>
<td>2.44</td>
</tr>
<tr>
<td>Supervisors</td>
<td>2.09</td>
<td>2.03</td>
<td>2.17</td>
<td>1.93</td>
<td>1.71</td>
<td>2.22</td>
<td>2.00</td>
<td>2.28</td>
</tr>
<tr>
<td>Lack of awareness of possible results from stakeholders</td>
<td>3.07</td>
<td>3.00</td>
<td>3.13</td>
<td>3.57</td>
<td>2.43</td>
<td>3.00</td>
<td>2.60</td>
<td>3.08</td>
</tr>
<tr>
<td>Place in the organization</td>
<td>2.67</td>
<td>2.36</td>
<td>2.57</td>
<td>3.14</td>
<td>2.14</td>
<td>3.00</td>
<td>2.00</td>
<td>3.08</td>
</tr>
<tr>
<td>Lack of knowledge and competences</td>
<td>2.54</td>
<td>2.33</td>
<td>2.77</td>
<td>2.71</td>
<td>2.43</td>
<td>2.78</td>
<td>2.00</td>
<td>2.52</td>
</tr>
<tr>
<td>Current market</td>
<td>2.30</td>
<td>2.31</td>
<td>2.27</td>
<td>2.36</td>
<td>2.29</td>
<td>2.44</td>
<td>2.60</td>
<td>2.20</td>
</tr>
<tr>
<td>Conflicting (political) goals</td>
<td>2.82</td>
<td>2.89</td>
<td>2.97</td>
<td>2.50</td>
<td>2.43</td>
<td>2.78</td>
<td>2.20</td>
<td>2.92</td>
</tr>
<tr>
<td>Lack of market knowledge</td>
<td>2.56</td>
<td>2.69</td>
<td>2.40</td>
<td>2.71</td>
<td>2.86</td>
<td>3.11</td>
<td>1.60</td>
<td>2.40</td>
</tr>
<tr>
<td>Attitude of the market</td>
<td>2.49</td>
<td>2.36</td>
<td>2.60</td>
<td>2.50</td>
<td>2.43</td>
<td>3.00</td>
<td>2.40</td>
<td>2.40</td>
</tr>
<tr>
<td>Lack of awareness of possible results from management/authorities</td>
<td>2.82</td>
<td>2.83</td>
<td>2.60</td>
<td>2.86</td>
<td>2.43</td>
<td>2.67</td>
<td>2.20</td>
<td>3.32</td>
</tr>
</tbody>
</table>

Municipalities also show higher score on the promotion of local and SME development. Municipalities are closer related to these firms and will consider their development as being more important. Next to that, developing local and small firms also has benefits for their society.

Looking at the support and delivery of broader governmental goals, environmental and economical topics receive more attention and more results are achieved than on the social topics. This could mean that these topics are more often applicable for projects from public procurement.

The topics that are perceived as the biggest barriers for public procurement are related to awareness. Although these topics are ranked the highest, they are not seen as having a big influence on the results of public procurement, since they only receive a score between 2 and 3, which stands for a barrier having a little to some impact on the results that public procurement achieves. Relating these findings to the distinction of Thai, (2004) external barriers receive slightly lowers scores then the internal barriers which means that public procurement could improve by taking a way barriers within its own organization.

Although the budget that public procurement has to work with receives a low rank in the list of barriers, looking at the classifications of the budget that is worked within different public entities might give a suggestion for the perceived differences. Municipalities often work with a smaller budget and perceive this a being a bigger barrier, while the central government most often works with a budget of more then 100 Million and perceive their budget not as being a big barrier.
Public procurers in hospitals consider a lack of market knowledge as a much lower barrier than the other groups. One of the reasons for this perception might be the way in which hospitals procure their goods and services. Most the purchase are done using the knowledge and capabilities of doctors, who have a close relationship with the manufacturers (Volkering, Adamini, Meindert, Van der Wiel, & Canoy, 2011).

### Table 7 Cross budget variation in barriers

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Variable Means per budget category on 5-point Likert Scale</th>
<th>1 = not at all - 5 = very much</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;10 Million</td>
<td>10-50 Million</td>
</tr>
<tr>
<td>Insufficient budget</td>
<td>2.33</td>
<td>2.56</td>
</tr>
<tr>
<td>Laws and regulations</td>
<td>3.00</td>
<td>2.49</td>
</tr>
<tr>
<td>Capabilities of colleagues</td>
<td>2.56</td>
<td>2.32</td>
</tr>
<tr>
<td>Supervisors</td>
<td>2.00</td>
<td>2.07</td>
</tr>
<tr>
<td>Lack of awareness of possible results from stakeholders</td>
<td>3.00</td>
<td>2.93</td>
</tr>
<tr>
<td>Place in the organization</td>
<td>3.11</td>
<td>2.41</td>
</tr>
<tr>
<td>Lack of knowledge and competences</td>
<td>2.78</td>
<td>2.34</td>
</tr>
<tr>
<td>Current market</td>
<td>2.78</td>
<td>2.24</td>
</tr>
<tr>
<td>Conflicting (political) goals</td>
<td>3.00</td>
<td>2.73</td>
</tr>
<tr>
<td>Lack of market knowledge</td>
<td>2.78</td>
<td>2.49</td>
</tr>
<tr>
<td>Attitude of the market</td>
<td>2.56</td>
<td><strong>2.24</strong></td>
</tr>
<tr>
<td>Lack of awareness of possible results from management/authorities</td>
<td>3.11</td>
<td>2.78</td>
</tr>
</tbody>
</table>

Several limitations need to be considered with regard to this study. The questionnaire was constructed with the greatest possible care but since the questionnaire was used to analyze the Dutch situation, the questions posed were also in Dutch. Translating the terms from English to Dutch was not always fully appropriate and different explanations had to be used. This might lead to slightly different interpretations of the respondents. Some entities are represented by only a small number of respondents, which might have led to biased answers. To make this bias smaller, groups with less than 5 respondents were added to the group others. The questionnaire asked procurers to score the amount of attention given to a certain topic and the results achieved. However when a lower score on the attention was given this would have also led to a lower score on the results. Looking back at the research a better formulation might have been to ask for the relative score on the results. Meaning that if the amount of attention is scores a number to what extend did this become a results.

Building on the findings of this research there are several options for future research. Such research could look more in-depth into the factors that have an influence on the differences between the amount of attention and the results achieved or could relate certain barriers to specific topics. Also looking for relationships between certain aspects of public procurement could lead to more understanding of why some topics get higher scores then others. As also already mentioned earlier it would be interesting to have a look at why the first stage of the model is not considered as being that important or that applicable.

### 7. CONCLUSION

This article was set out to analyze the current situation of public procurement results in the Netherlands. The seven stage model of Knight et al., (2012) was used as a theoretical base. This study is based on upon the responses of public procurement practitioners. The findings show that for public procurement in the Netherlands legal aspects are considered most often, while there is only little attention and few results for broader governmental goals. The biggest barrier to achieving results is the lack of awareness of third parties with whom public procurement has to cooperate, being either different stakeholders or management. Also conflicting (political) goals is one of the main barriers.

This study is the first to systematically evaluate the topics that receive attention from public procurement and the results that are actually achieved. This article adds to the literature by providing quantitative empirical evidence for the broad set of possible results studied. It gives an overview of the results that can be strived for and an analysis of the current situation in the Netherlands.

While literature has a growing interest on the broader goals of public procurement this research shows that the focus in practice is different since the topics related to the support or delivery of broader governmental goals are not applicable to all purchases.

This study gives an overview of the current situation of the Dutch public procurement. Using the findings of this research, practitioners can evaluate the topics that receive the most attention and the most results and see if this aligns with where they want to be. This can be a starting point for shifting the focus of public procurement. It also gives some focus points on which barriers could be decreased to achieve better results.

### 8. ACKNOWLEDGMENTS

I thank Jan Telgen from the University of Twente, Marlijn Letema and Olga van Oort from PIANOo expertisecentrum aanbesteden for their valuable contributions to this research and the questionnaire. I also thank Dr. F. Schotanus for his valuable feedback. I acknowledge support from NEVI and PIANOo for sending out the questionnaire.
9. REFERENCES


De eerste vragen van deze enquête gaan over de organisatie waarvoor u werkzaam bent.

1. Voor welke aanbestedende dienst bent u werkzaam? *
   - Rijksoverheid
   - Waterschap
   - Provincie
   - Gemeente
   - Sociale werkvoorziening
   - Politie
   - Onderwijs
   - Ziekenhuis
   - Overige namelijk

2. Onder welke afdeling valt de inkoopfunctie bij uw organisatie?
   - Eigen afdeling
   - Juridische zaken
   - Facilitaire zaken
   - Financiële zaken
   - Anders namelijk

3. Is uw organisatie onderdeel van een inkoopsamenwerking? *
   - Ja
   - Nee

4. Wat is het beïnvloedbaar jaarlijks inkoopvolume van uw organisatie?
   - Minder dan 10 miljoen.
   - Tussen de 10 en 50 miljoen.
   - Tussen de 50 en 100 miljoen.
   - Tussen de 100 en 500 miljoen.
   - Meer dan 500 miljoen.

Deze vraag heeft betrekking op factoren die aandacht krijgen van inkoop in uw organisatie.

5. In hoeverre besteedt inkoop in uw organisatie aandacht aan

<table>
<thead>
<tr>
<th>Factoren</th>
<th>Nooit</th>
<th>Soms</th>
<th>Regelmatig</th>
<th>Meestal</th>
<th>Altijd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zorgen voor juiste producten, diensten of werken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zorgen voor juiste hoeveelheid producten, diensten of werken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het op tijd leveren van producten, diensten of werken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het behalen van de beste prijs-kwaliteit verhoudingen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>De naleving van Nederlandse wet- en regelgeving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het kunnen verantwoorden van genomen besluiten</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het eerlijk handelen tijdens het inkoopproces</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>De transparantie van het inkoopproces</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het mee laten wegen van andere criteria dan de prijs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het verzekeren van eerlijke lonen voor medewerkers van leveranciers</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Werkgelegenheid voor mensen met afstand tot de arbeidsmarkt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>De promotie van mensenrechten en veiligheid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het gebruik van fair trade producten</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stimuleren van lokale/MKB bedrijven</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stimuleren van innovatie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gebruik en promoten van milieuvriendelijke producten</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. Zijn er andere doelen waar inkoop in uw organisatie aandacht aan besteed?
   Zo ja, welke?

Deze vraag heeft betrekking op resultaten die behaald zijn door inkoop in uw organisatie.

7. In hoeverre heeft inkoop in uw organisatie daadwerkelijk onderstaande resultaten behaald

<table>
<thead>
<tr>
<th>Doel</th>
<th>Nooit</th>
<th>Soms</th>
<th>Regelmatig</th>
<th>Meestal</th>
<th>Altijd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zorgen voor juiste producten, diensten of werken</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Zorgen voor juiste hoeveelheid producten, diensten of werken</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het op tijd leveren van producten, diensten of werken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het behalen van de beste prijs-kwaliteit verhoudingen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>De naleving van Nederlandse wet- en regelgeving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het kunnen verantwoorden van genomen besluiten</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het eerlijk handelen tijdens het inkoopproces</td>
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<tr>
<td>De transparantie van het inkoopproces</td>
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</tr>
<tr>
<td>Het mee laten wegen van andere criteria dan de prijs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Het verzekeren van eerlijke lonen voor medewerkers van leveranciers</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Werkgelegenheid voor mensen met afstand tot de arbeidsmarkt</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>De promotie van mensrechten en veiligheid</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Het gebruik van fair trade producten</td>
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<td></td>
</tr>
<tr>
<td>Stimuleren van lokale/MKB bedrijven</td>
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</tr>
<tr>
<td>Stimuleren van innovatie</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Gebruik en promoven van milieuvriendelijke producten</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Zijn er andere resultaten die inkoop in uw organisatie heeft bereikt?
   Zo ja, welke?

Deze laatste vraag heeft betrekking op de factoren die er voor zorgen dat het behalen van resultaten op sommige onderwerpen niet gebeurt terwijl hier wel aandacht aan wordt besteed.

9. In hoeverre hinderen de volgende punten inkoop in uw organisatie in het behalen van resultaten?

<table>
<thead>
<tr>
<th>Hinder</th>
<th>Helemaal niet</th>
<th>In mindere mate</th>
<th>In lichte mate</th>
<th>In sterke mate</th>
<th>Heel erg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget is ontoereikend</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regels en wetgeving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>De collega's waarmee samengewerkt moet worden</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>De directe leidinggevende(n)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gebrek aan besef van mogelijke resultaten bij interne klanten</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>De plek die inkoop heeft in de organisatie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gebrek aan kennis en competenties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>De huidige markt situatie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflictende (politieke) doelen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gebrek aan marktkennis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opstelling van marktpartijen/leveranciers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. Zijn er andere factoren die er voor hebben gezorgd dat inkoop in uw organisatie geen resultaten heeft behaald op punten waar wel aandacht is besteed? Zo ja, welke?

### 10.2 Appendix B Sample Composition

#### Table 8 Sample compositions

<table>
<thead>
<tr>
<th>Sectorial Composition of Sample</th>
<th>Total</th>
<th>Municipality</th>
<th>Central government</th>
<th>Education</th>
<th>Office of dike-reeve</th>
<th>Provinces</th>
<th>Hospital</th>
<th>Work shelter</th>
<th>Police</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td># of respondents</td>
<td>152</td>
<td>43</td>
<td>35</td>
<td>18</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>% of sample</td>
<td>100%</td>
<td>28,3%</td>
<td>23,0%</td>
<td>11,8%</td>
<td>5,9%</td>
<td>5,9%</td>
<td>5,3%</td>
<td>2,0%</td>
<td>1,3%</td>
<td>16,5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual Budget</th>
<th>Total</th>
<th>Municipality</th>
<th>Central government</th>
<th>Education</th>
<th>Office of dike-reeve</th>
<th>Provinces</th>
<th>Hospital</th>
<th>Work shelter</th>
<th>Police</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 10 Million</td>
<td>8,0%</td>
<td>7,1%</td>
<td>2,9%</td>
<td>16,7%</td>
<td>11,1%</td>
<td>0%</td>
<td>0%</td>
<td>66,7%</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>10 - 50 Million</td>
<td>30,5%</td>
<td>42,9%</td>
<td>14,3%</td>
<td>44,4%</td>
<td>55,6%</td>
<td>0%</td>
<td>25%</td>
<td>33,3%</td>
<td>50%</td>
<td>24%</td>
</tr>
<tr>
<td>50 - 100 Million</td>
<td>19,9%</td>
<td>19,1%</td>
<td>11,4%</td>
<td>16,7%</td>
<td>22,2%</td>
<td>55,6%</td>
<td>25%</td>
<td>0%</td>
<td>0%</td>
<td>24%</td>
</tr>
<tr>
<td>100 - 500 Million</td>
<td>27,8%</td>
<td>23,8%</td>
<td>34,3%</td>
<td>22,2%</td>
<td>11,1%</td>
<td>33,3%</td>
<td>37,5%</td>
<td>0%</td>
<td>0%</td>
<td>36%</td>
</tr>
<tr>
<td>&gt; 500 Million</td>
<td>13,9%</td>
<td>7,1%</td>
<td>37,1%</td>
<td>0%</td>
<td>0%</td>
<td>11,1%</td>
<td>12,5%</td>
<td>0%</td>
<td>50%</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department</th>
<th>Total</th>
<th>Municipality</th>
<th>Central government</th>
<th>Education</th>
<th>Office of dike-reeve</th>
<th>Provinces</th>
<th>Hospital</th>
<th>Work shelter</th>
<th>Police</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own department</td>
<td>32,0%</td>
<td>28,6%</td>
<td>51,4%</td>
<td>11,1%</td>
<td>33,3%</td>
<td>22,2%</td>
<td>12,5%</td>
<td>0%</td>
<td>50%</td>
<td>37,5%</td>
</tr>
<tr>
<td>Legal department</td>
<td>4,0%</td>
<td>14,3%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Facility department</td>
<td>29,3%</td>
<td>23,8%</td>
<td>11,4%</td>
<td>66,7%</td>
<td>0%</td>
<td>44,4%</td>
<td>50%</td>
<td>66,7%</td>
<td>50%</td>
<td>29,2%</td>
</tr>
<tr>
<td>Financial department</td>
<td>12,7%</td>
<td>7,1%</td>
<td>5,7%</td>
<td>11,1%</td>
<td>22,2%</td>
<td>22,2%</td>
<td>25%</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
</tr>
<tr>
<td>Other</td>
<td>22,0%</td>
<td>26,2%</td>
<td>31,4%</td>
<td>11,1%</td>
<td>44,4%</td>
<td>11,1%</td>
<td>12,5%</td>
<td>33,3%</td>
<td>0%</td>
<td>8,3%</td>
</tr>
</tbody>
</table>