

MASTER THESIS

**Systematic review of scientific  
literature published on the topic  
of public procurement between the  
years 1997 and 2012**

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## **Abstract**

**Background and objective:** Public procurement is considered a powerful tool to increase government efficiencies, both directly by decreasing public expenditures, as indirectly by fostering economies. While the field is fragmented in many sub-fields, lack of existing synthesis inhibits deriving at definite findings, which both disables the field to develop to a mature state, as it also hampers practical application. To fill this gap, this systematic review provides an overview of the most influential literature on the field, its most prominent subjects, as well as research designs and study characteristics. The findings are aimed at providing other researchers with relevant information to synthesize existing findings and develop research by utilizing previously neglected research approaches.

**Methodology:** The databases Scopus and Web of Science were searched for search terms previously tested for relevance. Searches were limited to English articles, published between January 1, 1997 and December 31, 2012 in peer-reviewed journals. Search results were assessed for relevance in a three-step process of comparing title, abstract and the full text against stipulated criteria for in- and exclusion. The remaining 378 articles were then coded against eleven main categories and subsequently analyzed by means of descriptive statistics using the software SPSS. Analysis focused on describing the literature in terms of publications, research designs and topics, as well as on discovering trends and assessing differences across countries and the scientific impact of articles.

**Findings** The findings suggest that public procurement research is a maturing field, which is receiving increasing attention from diverse scientific disciplines. The USA and UK are most productive publishers, while European countries have become increasingly active in recent years. While a

wide spectrum of research designs have been utilized, the reviewed research articles focused on few. For example, although articles addressed twenty-two different topics, eleven of those were only studied once, while 61.4% of papers researched the topic of procurement strategies. The second most important topic was selection, followed by contracting. Considerable variations were observed across countries, indicating different research foci, as well as varying levels of maturity per research characteristic.

**Discussion** Public procurement practices vary across countries, influenced by differences in legal regimes and institutional settings. We found that 22.5% of papers studied the US and a further 20.4% the UK, while the majority of other countries were only studied in less than 2% of reviewed articles. This indicates that obtained research findings should not be generalized to other countries with very different public procurement designs. Practical applicability of research findings is inhibited by the detected imprecision of research: 56.1% of reviewed articles did not specify the procuring government level, a further 28.6% were unspecific with respect to the procured type of product and 60.6% of papers did not address a particular private industry or sector.

Further, reviewed research has underused existing scientific knowledge in that both synthesis research strategies of literature study and meta-study were only utilized in 13.2% and 5% of papers respectively. This underutilization of existing, scholarly knowledge inhibits maturation of the field to a state of definite findings and shared paradigms.

The findings that 79.1% of authors published only one article on public procurement, while publishing journals come from diverse scientific disciplines other than public administration, such as construction, finances or ethics, indicates that only few researchers are specialized on the field, but

that instead it is composed of streams from various backgrounds. Although inter-disciplinarity in research is beneficial in that it utilizes complimentary knowledge, research gains quality from researchers who are more literate on the field.

The articles reviewed applied narrowly focused research designs: while thirty-two different industries and sectors were studied, 20.6% of papers studied the construction industry, where the second most often researched sector, health, was only studied in 6.9% of articles and a further nineteen industries and sectors were merely assessed once. Further, in the final years 2009 - 2012 65% of articles studied the topic of procurement strategies, while the other ten topics with the exception of contracting were studied continuously less frequently over the years.

Research on the procurement strategy e-procurement, although the 4<sup>th</sup> most often studied strategy of twenty, was found to be least developed in that it was never assessed against any specific industry or sector, and was exclusively researched by survey research and case studies.

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# 1. Introduction

Public procurement is widely regarded as a powerful tool to make governments more efficient. It accounts for 13% to 20% of worldwide GDP [4], meaning that a significant proportion of all produced products and services are bought by governments. Good public procurement policies and practices lower public expenditures and free them up to be allocated to other areas [16]. While governments aspire cost savings, they need to assure high quality standards. Many of its products have a long life cycle (e.g. infrastructure, buildings, etc.). In providing domestic inhabitants with such social services as health care, education, security, infrastructure and a free labour market, governments aim to make their countries more productive, increase the GDP and become competitive on the international market. Many researchers emphasized the powerful effects that public procurement can have on fostering innovation [7] [21], and green production [19] [25]. To achieve such socially desirable outcomes, governments operate as both regulators, passing laws and regulations, and market participants [16] [31]. And in times of global supply chains public procurement is not only a means to improve upon social outcomes on domestic markets, but also internationally [31].

While public procurement is a highly fragmented field, a systematic overview of research is still lacking. Crossan and Apaydin (2010) state that “fragmentation of the field prevents us from seeing the relations between these facets and ultimately impedes consolidation of the field.” [17, p.1154]. An ever increasing amount of research activities face scientists with the tedious task of filtering out the most relevant publications and conclusive findings on which to ground their works. Without such overview, they run the risk of conducting redundant studies

or base their researches on inconclusive findings. Providing an overview of the field is a key first step in contributing to practice. Both by showing which topics have been addressed until now, and to what extent, detecting possibly understudied, as well as mature sub-fields, and by enabling researchers with the tools to conduct syntheses on findings for sub-fields, the field is developed to a new state of more clarity and unification. The practical impact of this work is therefore indirect, by stimulating and enabling a research agenda to derive at generalizable findings.

This literature review provides an overview of the most influential scientific literature published on the topic of public procurement (PP). Moreover, the overall state of PP research is assessed, providing insights into the maturity of the field. According to Cheon et al. (1993) mature research fields are characterized by studying a variety of different topics and applying various research methods instead of narrowly focusing on few [15]. Therefore, this review focuses on addressed topics, as well as employed methodologies and their development over time. The literature review is focused on the past sixteen years (1997 to 2012).

To guide the systematic review, the following main research question was formulated: *“How did worldwide research on public procurement develop over the time period 1997 to 2012?”*

We formulated four sub-questions. The first three sub-questions are descriptive in nature, the last one is content related:

1. What is the current status of public procurement research and how did it evolve over the past 15 years?

2. What are the predominant study characteristics?
3. What are the predominant research designs?
4. What are the main subjects dealt with in research on public procurement and how did those change over time?

The paper is structured as follows. At first, we describe what differentiates a systematic literature review from a traditional one and how it should be carried out according to literature. Section 3 describes the methodological approach taken, followed by the findings in section 4. Section 5 presents a critical assessment of the limitations of this review. Section 6 then discusses directions for future research and section 7 concludes.

## 2. Literature review

Systematic reviews provide objective summaries of what has been written and found out about research topics. This is especially valuable in wide research areas, where many publications exist, each focusing on a narrow aspect of the field [11]. Systematic literature reviews differ fundamentally from traditional ones. Rousseau et al. (2008) state that the main difference lies in their representativeness: while traditional reviews tend to be “cherrypicking studies” [39, p.476], systematic reviews aim to provide a full overview of research conducted on a specific field until the present date. All research procedures have to be made explicit before the actual conduct of the review to make the process objective and replicable.

To conduct a systematic review, Tranfield et al. (2003) propose a three stage process of planning, conducting and reporting [43]. In the planning phase, a review

panel should be formed, consisting of experts in the field, who will together assess the research subject, formulate clear criteria for in- and excluding literature and develop a review protocol. Criteria for in- or excluding specific literature manifest the research focus and also point to its limits [9]. While Tranfield et al. do not define a suited or minimum size of the review panel, Wynstra (2010) [46] and Carter and Ellram (2003) [13] utilized teams of two reviewers. The review activities should according to Tranfield et al. not be planned with too much rigour, but leave room for flexibility to adjust during the review. This is also supported by Moher et al. (2009), who state that amendments to the review protocol should be viewed as inherent to the process itself [33].

In the second stage of conducting the review, search terms are to be formulated on the basis of scoping studies and discussions within the review panel. A scoping study is a preliminary assessment of the research field aimed at mapping the scope and size of it. For formulating suitable search terms, the Centre for Reviews and Dissemination's (CRD) 2009 guideline for systematic reviews suggests to consult the main research question [35]. For searching electronic databases, the guideline recommends to also consider “synonyms, abbreviations and spelling variants” (p. 243). Bettany-Saltikov (2010) highlights that sources other than electronic databases should be searched, too, since even well-known research articles may not be enlisted in all databases [9]. Both Bettany-Saltikov and the CRD guideline recommend utilization of articles’ reference lists to detect relevant literature, hand searching important journals, contacting researchers on the field, as well as consulting citation analysis to discover articles that cite already included literature. While these non-random snowball sampling techniques are suitable for unknown

populations, which are difficult to access, their results are highly biased [8, p. 185], which is in direct conflict with the need for objectivity.

After the formulation of search terms, a search strategy should be developed. The search strategy encompasses all measures taken to detect literature relevant to answer the research question and is thereby very critical to the success of the review and the validity of its findings [9]. Kable et al. (2012) have developed a structured approach for formulating and documenting a search strategy [28]. The main focus of the 12-step framework presented by the authors is on what should be documented in the review manuscript so that the followed search strategy becomes replicable to other researchers. The twelve steps of the Kable framework are documented in Table 1. The authors state that a thorough documentation of the search strategy helps readers to better grasp the rationale and focus of the review. A further benefit of the model is that it guides reviewers through the strategy development phase and ensures that no important aspects are left out. Therefore, the framework is viewed to be an especially valuable tool for inexperienced researchers.

It is generally considered important to include grey literature in the review to develop a more complete overview [43] [39] [27] [30]. Grey literature refers to “multiple document types produced on all levels of government, academics, business, and organization in electronic and print formats not controlled by commercial publishing i.e. where publishing is not the primary activity of the producing body.” [1]. Due to its nature, grey literature is difficult to locate and can be abundant, which would have exceeded the time range of this review. Moreover, this type of literature does not satisfy the research aim of presenting an overview of only the

Step
1) Purpose statement
2) Databases, search engines used
3) Search limits
4) Inclusion and exclusion criteria
5) Search terms
6) Exact searches per database, search engine and the results
7) Relevance assessment of retrieved literature
8) Table reporting literature included in the review, accompanied with key data such as title, author, but also research subject and findings
9) Document final number of search results
10) Quality assessment of retrieved literature
11) Review
12) Accurate, complete reference list

*Table 1: Kable et al. (2012) 12-step framework*

most influential scientific literature.

With respect to assessing the relevance of retrieved literature at the end of the search process, Bettany-Saltikov proposes to conduct a first, quick assessment by means of reading only the titles and abstracts and compare them against the criteria for in- and exclusion. Only those papers classified as relevant or likely to be relevant after this first assessment should then be read in full during a second assessment stage. The benefit of this approach is that potentially large bulks of literature can be assessed rather quickly. Each literature should be assessed by at least two individual reviewers who compare their results and solve discrepancies through discussions and potential amendments to the in- and exclusion criteria. While this group approach will yield a highly representative review, it is a time consuming effort, requiring multiple researchers to collaborate over time. The time and resource limitations of this review did not allow for the full inclusion of other researchers. This makes the review vulnerable to be subjectively biased and

thereby not a representative overview of the current status of research. While a representative review is aspired and needed by science, this paper shall give other researchers a thorough basis for replicating the research process and testing its findings.

At the end of the relevance assessment stages, all included literature must undergo a quality appraisal to ensure reliability of its findings. Quality appraisal should according to Bettany-Saltikov be conducted with respect to internal and external validity, as well as suitability of the employed data analysis methods. While the author does not provide guidelines as to how the validity can be evaluated, the book by Shadish, Cook and Campbell (2002) [40] provides extensive examples of threats to validity, which may be utilized in assessing literatures' quality. Peer-reviewed journal articles do according to Mol and Wynstra (2008) not require quality appraisal since they "provide validated knowledge, and give a good estimate of accepted topics and methodologies" [34, p. 15]. Opposed to this, many have critiqued peer-review to be an obscure process, which guidelines are kept confidential and differ between journals and even between different reviewers of the same journal [5]. Moreover, reviewers may be biased by knowing the identity of the author [38]. However, the limitations of this research did not allow for a quality appraisal of each included article. Therefore, it is believed that peer-review was the best available measure to have some quality appraisal in place.

When extracting information from the literature, a data extraction form should be used to reduce error and bias. It lists all information needed to answer the research question, and enables researchers to scan the included literature for those

specific information. The review paper by Wynstra (2010) [46] provides practical examples of categories for the data extraction form that are relevant to this review. For reviewing the *Journal of Purchasing and Supply Management*'s publications of the years 1994 to 2009 he developed an extensive list of categories each article was classified into. The main categories employed by Wynstra are: topic, research strategy, data collection, data analysis, type of product, type of purchase, as well industry and sector. With respect to the topics, the author classified each article into a maximum of three subject categories, while another, similar review conducted by Carter and Ellram (2003) on the *Journal of Supply Chain Management* categorized each article into only one subject category which summarized the article's focus the best [13]. We believe that Wynstra's approach yields a more accurate representation of research topics, since procurement subjects are often researched against a clear background and therefore categorization into only one subject field will under-represent the other(s). Each of the main categories was further divided by Wynstra into sub-categories. He also gathered general article data including publication year, contributing authors, institutions and citations. Both Wynstra as Carter and Ellram conducted time series analyses by sub-dividing the years of research into time intervals of five years. In the Wynstra paper, the first interval was six years long, and only the following two intervals five years. This disparity obscures comparability, especially with regard to publication counts per interval.

The final step of the review is the synthesis, which summarizes the findings of the review. Two synthesis methods are presented by Tranfield et al., the narrative and meta-analysis. Whereas the narrative synthesis summarizes and concludes the

main topics addressed by research, meta-analysis is used to pool data of research findings, thereby increasing the statistical power of findings. As this review aims at generating an overview of the status of PP at large with all its diverse sub-fields, noting findings of each subject would have exceeded the research limitations. Accordingly, the narrative synthesis is suited to our research objective.

### **3. Methodology**

This section presents the operationalization of the research questions, as well as the developed search strategy.

#### **3.1. Operationalization**

The sub-questions' operationalizations were informed by Wynstra (2010) [46]. All main categories employed in his research were adopted with the exception of "type of purchase", as a scoping study of the PP field had revealed that this category was irrelevant. While the main categories were mostly adopted, the sub-categories were modified. His topic sub-categories were to a great extent not applicable to this review, since his research mainly focused on private sector procurements. The research strategies were all adopted except for "expert interviews/Focus group" and "laboratory experiment", which were instead grouped as data collection methods. Wynstra's subcategories for data collection are very specific, such as distinguishing between four kinds of questionnaires. As this level of specificity may falsely create the impression of variety, the subcategories were simplified. The same applies to his thirty-nine items list of data analysis techniques, which was simplified to only distinguish between quantitative and qualitative research. The product types were

amended to account for works while the product type combination “good/service” was omitted. Nine industry and sector categories were adopted from the Wynstra classification scheme yet further extended during the data extraction stage of the review. Instead of collecting institute data, the country of the institute was noted per article. While institutional data would have provided interesting insights into institutional collaborations as well as most active institutions on the field, this review adopted a global perspective limited to cross-country as opposed to cross-institutional differences. Finally, his categorizations were extended with data on studied country/ies, publishing journal and the procuring government level. This latter study characteristic is specific to public procurement and inclusion in the review provided valuable information on the context of conducted research. Specifying the research context is according to Denyer et al. (2008) supportive to practical relevance [20]. The complete classification scheme used for this review can be found in Appendix B. The classification scheme was directly transcribed into an SPSS data extraction form, which was later used to conduct the analyses.

These categorizations were then utilized to operationalize the research sub-questions.

- Sub-question 1, pertaining to the status of public procurement research, was operationalized as yearly publication counts. Publication counts are an effective outcome measure to assess the scientific importance of a research field [17], and their development is a reliable indication whether the relevance of the field changed. To further characterize the time developments, publishing countries and journals were assessed over time as well as authorships. It is believed that these variables provide a meaningful overview of the main

stakeholders of the field.

- Sub-question 2, regarding predominant study characteristics, was assessed against the industries and sectors from which the government procures, the procuring government level, studied country/ies and types of products procured. There was no limitation for those categories with regard to maximum sub-categories per article.
- Sub-question 3, which seeks to discover employed research strategies, was assessed against the research methodology, time dimension, research strategy and data collection methods. While there was no limit as to how many data collection methods each article was grouped into, the other categories hold mutually exclusive sub-categories. This exclusiveness was only breached when articles clearly articulated to have utilized more than one strategy.
- Sub-question 4, pertaining to the research subjects addressed, was assessed based on most common topics and their developments over time. Each paper was categorized as addressing a maximum of two subjects. As mentioned in section 2, it is believed that categorizing into more than one subject field better enables contextualization, such as studying the selection process for PPP projects. While Wynstra (2010) categorized into a maximum of three categories, we believe that two categories suffice to both capture the main subject focus of the article as the context against which it was assessed.

To detect developments over time, the sixteen years of research have been subdivided into equal time intervals of four years each, inspired by Wynstra (2010) and Carter and Ellram (2003) [13].

## **3.2. Search strategy**

For developing an effective search strategy the framework developed by Kable et al. (2012) [28] was applied. As was discussed in section 2, the 12-step framework presents a valuable tool for documenting a systematic review's employed search strategy while also guiding researchers to consider all aspects required for locating relevant literature. To enhance readability and enable readers to quickly find certain steps, this section presents each of the twelve steps consecutively.

### **3.2.1. Purpose statement**

The purpose was formulated together with the principal and project supervisor, Prof. Dr. Jan Telgen. As a member of the editorial review board of the *Journal of Purchasing and Supply Management* and the *Journal of Public Procurement*, as well as a public procurement advisor of municipalities, government advisors and the Dutch parliament [3], he is an expert on the field. The purpose was stipulated as discovering how scientific research on public procurement developed during the years 1997 to 2012, and which research trends emerged. An all-encompassing overview of the developments was to be derived, instead of a focus on limited research topics.

### **3.2.2. Databases**

We searched in the databases Scopus and Web of Science. Both databases are well-established, multi-disciplinary research platforms, holding a wide variety of peer-reviewed journals, and they are being kept up to date. We chose for two databases to ensure all relevant papers are included, since it is possible that one database omits relevant research [17].

### **3.2.3. Search limits**

The following search limits have been applied to our searches:

- Peer-reviewed journal articles in English language**

We limited searches to peer-reviewed journals. “Peer-reviewed journal articles provide validated knowledge, and give a good estimate of accepted topics and methodologies.” [34, p. 15]. For the peer-reviewed journal articles it is assumed that high impact research on the subject of public procurement will have been translated into English. Therefore, it is believed that no high impact papers will be disregarded from the review based on the language restriction.

- Published between January 1, 1997 and December 31, 2012**

This is the time frame chosen for the systematic review. Around the millennium a number of initiatives have been launched by the National Institute of Governmental Purchasing, Inc. (NIGP) to foster academia to pay more attention to the largely neglected field of public procurement [42] [14]. Those included, beyond others, under a partnership agreement with the Florida Atlantic University (FAU) the establishment of the Public Procurement Research Center, as well as the launch of the first scholarly journal on the field, the *Journal of Public Procurement*. We decided on setting the cut-off year for this review a few years before the launch of those initiatives to, among other things, be able to assess their impact on the field. The final year of consideration, 2012, was the most current research year when this systematic review was initiated in 2013 and was thus chosen to represent the most current developments.

- **Search within**

For the database Scopus, the search for the search terms was restricted to title, abstract and keywords of the article. The proximity operator of W/5 was included between two consecutive search terms to include results where the two search terms appear within five words. Scopus advises researchers to use a proximity operator of either 3, 4 or 5, if they wished to find the search terms within phrases [2]. To lower the threat of falsely omitting relevant literature, we utilized the widest of the advised proximity operators. For the Web of Science database searches were restricted to the topic subject and title. In line with the Scopus searches, the proximity operator NEAR/5 was used.

- **Subject area**

For the Scopus database searches were restricted to the subject area of Social Sciences & Humanities. For the Web of Science database searches were restricted to the subject areas Science Citation Index Expanded and Social Sciences Citation Index.

#### **3.2.4. Relevance assessment**

Criteria for in- or excluding retrieved articles have been formulated in conjunction with the project supervisor Prof. Dr. Jan Telgen. The main rationale was that we only wanted to include articles that were strictly on the topic of public procurement and which provided exemplars of current practices, best or worst, as well as guidelines for practice and research. The criteria were tested on three batches of twenty articles regarding their relevance, as well as understandability and practicality. Having two researchers develop and test the criteria makes the

article retrieval process more objective [43] [39].

## Inclusion criteria

- **Public procurement methods and tools**

Methods and tools include, beyond others, e-procurement, green procurement, auctions, as well as supplier selection and appraisal tools.

- **Effects of a public procurement method or tool**

Effects may be positive, such as increased innovation, or negative, such as decreased transparency.

- **Impact of legislation, legal system, legal framework on public procurement**

Positive or negative effects that a legislation, legal system or legal framework has on public procurement.

- **Public procurement as a concept**

Examples of conceptualizations of public procurement are descriptions and definitions of the field, as well as comparing and delineating its characteristics from private sector procurements. Literature reviews on sub-fields of public procurement research also fall into this category.

- **How to achieve a public procurement related goal**

Objectives can be directly procurement related, such as lowering expenditures or fostering competition between suppliers. But they can also be indirectly related but imposed upon public procurement such as fostering par-

ticipation of small and medium enterprises (SMEs) in biddings to serve the domestic economy.

- **Outsourcing, privatization, PPP and PFI**

In the context of motivations and pre-conditions for, as well as effects, usefulness and best practices thereof.

### **Exclusion criteria**

- **Public procurement is not the main subject and focus**

This is the most essential exclusion criterion, which also lies at the centre of most of the following exclusion criteria. Relevant articles need to focus on PP and not just discuss it in the context of another issue.

- **Public buying entity is only meaningful due to its size and/or buying power**

An example is the article by Arnold & Whitford (2006), which discusses ways to influence private firms to act more environmentally friendly [6]. One approach proposed by the authors is that governments should make private companies' participation in biddings for public contracts contingent upon the environmental friendliness of those companies. Thus, the focus is really on private companies and public procurement agencies are only meaningful in that they present lucrative business partners for private firms. This criterion is in essence the same as the previous in that it excludes articles where public procurement is not the focus. Yet, during the relevance assessment stage of this review, where other researchers were assisting, it became apparent

that it needs to be added to make researchers assess the role that public procurement plays in the respective article more critically.

- **Procurements which are not strictly public**

Procurements that are not strictly public include, beyond others, utilities as well as hospitals' and educational institutions' procurements. In general, those articles were excluded when they clearly referred to the private sector or when they put the purchased product at their focus. But articles about those products were included, if they focused on public procurement, its methods, effects, good or bad practices. The general principle is that this review is not on what is bought, but on how it is bought.

Also, most procurement tools are equally applied by private companies. Included were only those articles, which either focused exclusively on the application of those tools by public entities, or which compared their application in the two fields so as to develop guidelines for public procurement.

- **Degree of implementation of a legal regime**

When a legal regime is the research focus, its degree of implementation across regions as well as obstacles to its successful implementation, the research article was excluded.

- **General effects of a legal regime**

Unless those are specific to public procurement. However, articles are still to be excluded if an effect on public procurement is just one of several effects, thus where impacts on public procurement are not the main interest.

- **Development of a legal regime**

Articles that discuss the current status of a legal regime or framework and possible suggestions for further adaptations were excluded, even if those specifically pertained to public procurement. While those amendments will possibly have an effect on public procurement, if they were implemented, their impact is theoretical as long as they are merely proposed and until then are rather associated with legal research.

- **Single rulings with no effect on public procurement at large**

A single, standalone court ruling, which has no effect on any other but the included parties.

- **Procurements without a money transaction**

Such as donations.

- **Uncontrollable factors**

Such as political leadership having an influence on which public procurement practices are used.

### **3.2.5. Search terms**

The search terms were developed in collaboration with both project supervisors, Prof. Dr. Jan Telgen and Dr. Fredo Schotanus. Both researchers were familiar with the PP field beforehand and were better able to develop effective search terms than the author would have been on his own due to unfamiliarity with the field of research. Batches of twenty articles corresponding to each individual search term were tested for relevance through the author and Prof. Dr. Jan Telgen. Each search included two search terms, consisting of variations of public + variations

of procurement, i.e. “government commissioning”. While many search terms were disregarded after the test batches had revealed that they did not add any new or relevant results, the following are the final search terms utilized:

- **Variations of public:** public; government
- **Variations of procurement:** procurement; purchasing; contracting; buying; commissioning

### 3.2.6. Documentation of search process

Appendix A shows the exact search queries conducted for each of the two databases and the results.

### 3.2.7. Test relevance of retrieved articles

Relevance of found articles was assessed in a three step process based on Bettany-Saltikov (2010) [9] by evaluating them against the criteria for in- and exclusion. First, all titles were assessed. Assessment of only the titles has the advantage that papers that do not meet the rationale of the research can be eliminated within a relatively short time. If a title held too limited information to judge its relevance, it was included. The title assessment was conducted in a team of four, consisting of the author, Prof. Dr. Jan Telgen, and two other researchers. Each title was assessed by two researchers. After the first batch, disagreements between researchers were dissolved through group discussions, which led to refinements of the criteria, which included both reformulation to make them more understandable, as extending the list with criteria previously unaware of. In the consecutive title batches, disagreements between two researchers were solved by having the title in question be re-assessed by a third researcher. In this first screening process, the

initial batch of 3,501 articles could be decreased to 1,317.

In the second screening step, all remaining 1,317 articles' abstracts were read and assessed against the criteria for in- and exclusion. Full articles with less informative abstracts were included. This process initially started with the same team that had assessed the titles. The other three researchers could not finish all batches due to personal agendas that no longer allowed for the time intensive effort. As a result, the first batch of 303 articles was assessed with the whole team. Batches three to five (in total 734 articles) were assessed in a team of three, and the final batch (280 articles) by the author alone. At the end of this second screening stage, 535 articles remained.

The third screening process was conducted during the data extraction stage of the research when full articles were screened. Another 157 articles were excluded from the analysis in this final assessment stage, yielding a final batch of 378 articles included in this review.

### **3.2.8. Summary table of included articles**

On request, the complete list of included articles can be gathered from the authors.

### **3.2.9. Retrieved articles at end of the search process**

Initially, 5,111 articles were found in the search processes. Excluding duplicates a batch of 3,501 remained. The high amount of duplicates is due to the fact that two databases were used.

### **3.2.10. Quality appraisal of retrieved articles**

Quality assessment is crucial to ensure that findings of papers are correct [37]. For this literature review only peer-reviewed articles were included, which excludes the need for a further quality assessment.

### **3.2.11. Critical review**

The critical review entails the three processes of data extraction, analysis and synthesis.

**Data extraction** To extract relevant data from included literature, a data extraction form was developed in collaboration with the project supervisor, which categorizes each article into the categories shown in the classification scheme in Appendix B. The completed data extraction form can be obtained on request from the authors. Following this data extraction form, each article was screened for relevant information, which eliminated the need to read all papers completely. This process was undertaken by the main author alone, resulting in a potential subjectivity bias.

**Data analysis** The retrieved data were then analyzed to answer the main research and sub-questions. The complete analyses can be found in Appendix C.

**Synthesis** Finally, the findings were summarized in a narrative synthesis. The synthesis is presented in the following chapter.

### **3.2.12. Check the reference list for accuracy**

The 378 articles included in this review were not referenced in a separate list due to the amount of articles studied. A complete list may be requested from the authors.

## **4. Findings**

This chapter presents and discusses the findings from the conducted analyses. The complete analyses can be found in Appendix C.

### **4.1. Status of public procurement research**

#### **4.1.1. Annual publications**

As shown in Figure 1 the amount of annual publications on the topic of public procurement almost sextupled over the sixteen years. Publications stagnated between 1997 and 2002 and only started to increase by the year 2003. The increase was most remarkable at the beginning of the fourth time interval, year 2009, when the yearly publications almost doubled. Overall, this development shows that academic interest in the field rose considerably. The fact that publications stagnated between 1997 and 2002 and then experienced a significant increase from 2003 on may be a sign that the initiatives launched by the NIGP and FAU have succeeded in stimulating research activity in the field. The second boost in 2009 may be attributable to the global financial crisis, which shook economies around the globe. PP as a major cost function of governments is a powerful tool in decreasing economies' expenditures, as also for strengthening businesses through such means as preferential buying.

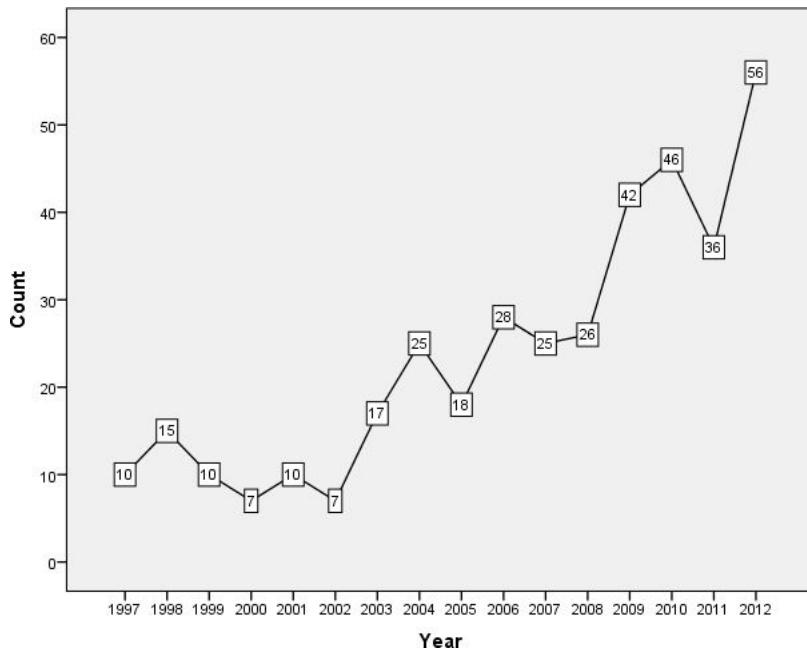


Figure 1: **Publication trend**

#### 4.1.2. Authorships

To control for false duplicates, initials were checked which appeared to lend themselves to wrong individual listings. Besides controlling for slight differences in initials to ensure no false duplicates, common initials, such as J. Smith, were also checked to ensure no two authors would falsely be categorized as one. Filtering out duplicate author listings yields 624 individual authors contributing to the 378 articles. The majority of authors published only one article on PP (79.1%). Of the seventy-nine authors that published more than one article, the majority published two (73.4%). The two authors Potoski, M. and Brown, TL are the most productive authors in the field, each having published seven articles of relevance to this review, followed by Warner, ME and Chan, APC, each of which published six relevant papers. A list of the most influential authors can be found in Appendix C.1.2.

Authorship	Frequency	Percent
Single author	131	34.7%
Two authors	151	39.9%
Three authors	66	17.5%
Four authors	24	6.3%
Five authors	4	1.1%
Six authors	1	0.3%
Seven authors	1	0.3%
Total	378	100.0%

*Table 2: Authorships 1997 - 2012*

As shown in Table 2, over the sixteen years of research most papers were published by two authors (39.9%), followed by single authorship (34.7%) and co-authorship between three authors (17.5%). While still 6.3% of papers were published in collaboration between four authors, authorships between more than four authors were unpopular, in total pursued by only six papers. The highest amount of authors contributing to one research paper were seven and could be observed in just one paper. As the time series analysis (Appendix C.1.1) shows, co-authorship between two authors only became most prominent in the fourth time interval 2009 to 2012. While in the first quartile single authorship was most prominent, the two forms of authorship were almost on the same level during quartiles two and three. Co-authorships between four and more authors increased over time making up 10% of all papers in the fourth interval compared to 2.4% in the first.

The high amount of individual authors who only published one or two articles poses to a scattered field and indicates that only few top publishing researchers are specialized on the field. The increase in co-authorships is a trend, which has also

been observed for other research fields [32]. In general, as more researchers become interested in a field, the easier it is for them to find collaborators. Reasons for collaboration include the exchange of complimentary knowledge and experience. This is especially needed when the field is approached from many different disciplines. Moreover, it may be a sign that research problems are gaining complexity, while at the same time research needs to be finished quicker so that its findings will still be relevant. Having a team of researchers collaborate speeds the research process. Moreover, universities are increasingly promoting research collaborations to increase their reputation. In general, cooperation is easier today due to the technical developments, which enable short communication ways. According to Shin et al. (2013), collaboration is more likely in developed systems [41] and thus its increase poses to a growing maturity level of PP research.

#### 4.1.3. Journals

All journal titles starting with a “the” were cross-checked to ensure they were not double listed without the definite article. Moreover, publications of the *European Journal of Purchasing and Supply Management* were grouped under the *Journal of Purchasing and Supply Management*, since the journal changed its name to the latter. While the other journals that published public procurement research were not investigated regarding name changes, a potential limitation of this analysis is that some journals’ relevance for the field may be undervalued.

The analysis revealed a scattered image of 199 different journals (Appendix C.2.1). The majority of journals, 68.5%, published only one article over the sixteen years, and a further 14.5% published two. The top ten journals combined published one

quarter of the public procurement research. Still, none of them can be regarded as clearly the most productive, each accounting for a maximum of 3.7% of all papers included in this review.

Over the four time intervals the amount of journals publishing PP research increased. Moreover, publishing journals come from various scientific backgrounds, such as finances, construction, health and many more. The tables listing journal publications descending per time interval (Appendix C.2.2 to C.2.5) show that the top five journals that published most papers over the time period 1997 to 2012 have been active publicists over all four time intervals.

The top six to ten journals only became more knowledgeable in later time intervals. To further investigate this, a cross tabulation was generated displaying the publications of these top ten journals, see Table 3. There it can be seen that even the top journals often merely published one or two relevant articles in four years. The top six to ten journals show notable gaps in activity in that they have not published relevant research over complete quartiles. The most surprising publication history can be observed for the *Journal of Public Procurement*: while the journal published the fourth highest amount of PP papers it apparently did so only in the final quartile. Due to the fact that the journal was already founded in 2001 and is regarded as a highly influential publisher on the field, this discovery was unexpected. A further analysis showed that the *Journal of Public Procurement* was not listed in the Web of Science database at all, while Scopus only lists publications from 2012 onwards. To clarify the underlying reason for this finding, we contacted the customer support of both databases, as well as Dr. Khi V. Thai, the journal's

chief editor. While the customer supports could not answer our request, Dr. Khi V. Thai explained that the journal was rejected by the Web of Science due to too low citations. The journal's application with Scopus was a long process due to the demanding requirements that had to be met. The fact that the journal only got accepted at Scopus in 2012 and was rejected by the Web of Science altogether, poses some thoughts: on the one side, the strict requirements stipulated by the databases can be regarded as a strength of this review in that only high standard journals' articles were considered. On the other side, it indicates that systematic literature reviews for emerging fields should not be limited to databases with such high standards, as specialized journals may not have accumulated the requirements yet.

The overall result from the journal analysis is that public procurement is of interest to researchers of various backgrounds. PP research does not operate in an independent environment, which is only relevant to public administration, but instead it is influenced by various fields that interface with the field.

#### **4.1.4. Publishing countries**

Each paper originated from at least one and a maximum of seven countries depending on authorship. Eleven papers included no author information so that no originating country could be determined. Those articles were categorized under "unknown origin". Some author information included different institutions and countries they were associated with. In that case, only the first country was noted, assuming that the institutions were listed in order of their relevance to the author. Frequency analysis over the sixteen years of research (Appendix C.3.1) reveals that research originated in forty-eight different countries, excluding the

Journal	1997 - 2000	2001 - 2004	2005 - 2008	2009 - 2012	Total
Journal of Purchasing and Supply Management	1	2	7	4	14
Public Administration	2	3	5	1	11
Public Administration Review	1	3	4	3	11
Australian Journal of Public Administration	4	1	2	3	10
International Journal of Public Sector Management	3	1	2	4	10
Journal Of Construction Engineering And Management	4	3	3	3	10
International Journal of Industrial Organization	1	2	2	5	8
Journal of Public Procurement				8	8
Public Money & Management	2	2	4	1	8
International Journal of Project Management		5	6		6
<b>Total</b>	<b>14</b>	<b>14</b>	<b>32</b>	<b>36</b>	<b>96</b>

Table 3: Top 10 Journals' publications per time interval

category of unknown origin. The USA and UK are the most important publishers, combined contributing to 83.1% of published papers, followed by Australia (14%), while thirty-one contributing countries each only have a share of less than 2%. Ten of the top sixteen publishing countries, which published more than ten articles, are European countries, the most important being Spain, contributing to 9% of all relevant papers. Splitting the analysis into four equal time intervals (Appendix C.3.2 to C.3.5) shows that the USA and UK have been the top publishers throughout all four quartiles, although the UK used to be the top publisher in the first interval, and were only surpassed by the US in the second interval. USA's increase in publications by almost one third may be reasoned in the NIGP initiatives.

Publishing country	Frequency	Percent
USA	179	47.4%
UK	135	35.7%
Australia	53	14.0%
Spain	34	9.0%
Germany	24	6.3%
Italy	24	6.3%
Hong Kong	23	6.1%
Netherlands	23	6.1%
France	21	5.6%
Sweden	21	5.6%
Canada	20	5.3%
Norway	18	4.8%
China	17	4.5%
Finland	15	4.0%
Denmark	14	3.7%
Taiwan	14	3.7%

*Table 4: Top 16 publishing countries 1997 - 2012*

The time analysis further reveals that countries other than the US and UK

gained importance in the field over time: Finland, as the fourteenth most important publisher overall, only became active in PP research in the third interval. Denmark only became active in the fourth interval and yet is the fifteenth most important publisher. It can be observed that publications for the top European countries increased considerably in the fourth interval. For instance, the Netherlands, the eighth most important publisher over the sixteen years, published one relevant article in the first interval, followed by five in the third and seventeen in the fourth. This development is similar with all of the other top European publishers. Overall, while the publications increased per time interval so did the countries: thirty-nine of the forty-eight contributing countries published relevant research papers in the final interval, while twenty-six countries published in the third quartile, twenty-one in the second and ten in the first.

These findings show that the PP field is highly dominated by the US and UK, while Europe's relevance is increasing rapidly. Based on this finding it can be expected that Europe's activity on the field will further increase in the upcoming years, potentially making the region more scientifically competitive to the US and UK. While the amount of other countries publishing PP research increased over time, their comparative relevance remained low. These findings are likely to be biased by restricting the review to English publications, as it has been shown that non-English research articles tend to be translated only when significant results have been achieved [22] [23]. Nonetheless, the overall increase in publishing countries is a sign that public procurement gained in global relevance over the course of the sixteen years. While restrictive use of few databases could also pose a selection bias, this threat can be ruled out for this review, since the majority of

included papers were retrieved from the Scopus database, which is internationally oriented [10] [45], while only nine of the included articles were exclusively listed in the Web of Science database, which has been reported to be biased towards North American and Western European publications [45].

## 4.2. Predominant study characteristics

### 4.2.1. Government levels

As shown in Table 5, more than half of the papers (56.1%) did not address particular government levels. The time series analysis (Appendix C.4.1) further shows that this proportion remained this high throughout all four time intervals. The most prominent studied government level over the sixteen years is the local one, studied by 25.1% of papers. The federal and municipal levels were studied by 13% and 14.3% of papers respectively. The time series analysis shows that while the local level remained stable over the four time intervals, municipal governments gained in importance, while the federal level's relevance to public procurement research decreased.

Government level	Frequency	Percent
Governmental	49	13.0%
Municipal	54	14.3%
Local	95	25.1%
No government level	212	56.1%
Total	410	108.5%

Table 5: *Government levels 1997 - 2012*

To investigate whether publishing countries differ with regard to studied govern-

ment levels, a cross tabulation was generated, which juxtaposes these two variables (Appendix C.4.2). The table lists only the top sixteen originating countries, which each have published more than ten papers over the complete time span under consideration. As the other countries published less than ten papers no conclusions could have been drawn for the small categories and therefore they were disregarded from any further cross analyses. It can be seen that most of the top sixteen publishing countries applied an imbalanced approach with varying proportions per government level. Taiwan and Germany can be regarded as most balanced, followed by China and Hong Kong. While the latter two countries only studied two of the three government levels, the other levels were studied in an almost equal proportion of papers. As according to Cheon et al. (1993) mature research is characterized by variation in research approaches [15], these countries can be regarded as the most mature with respect to government levels.

A further conducted cross analysis discovers whether high impact papers did things differently than low and medium impact papers with respect to studied government levels (Appendix C.4.3). Since observations of single papers would have been impossible to generalize, citation counts were grouped into decadic categories of 0 - 10, 10.5 - 20, and so on, up to the highest citation of this review, 135. As with the other cross tables generated for this review, the amount of papers falling into each category were given in brackets to enable readers to assess the meaning of proportions. It can be seen that the majority of research papers received between zero and ten citations, corresponding to 74.6% of the 378 papers. 17.9% of papers accumulated 10.5 - 30 citations, and only 7.5% received more than 30 citations. There is one exceptionally high impact paper with 135 citations. This is the paper

“The allocation of risk in PPP/PFI construction projects in the UK” written by Bing L., Akintoye A., Edwards P.J., and Hardcastle C., published in 2004. As stated in the operationalization of sub-question 2 (section 3.1), there were no limits as to the maximum categories per government level. As a result, some sums of the table are greater than 100%. In this regard, it can be seen that while all three low impact categories of 0 - 30 citations contain papers that addressed more than one government level, none of the top five categories of  $\geq 60.5$  citations did. This can be interpreted as high impact papers being more focused. Addressing one particular context makes research more specific and its findings more directly transferable to business problems. Further, most of the high impact papers did not specify a government level, while the municipal level was studied most often. Low impact papers’ dispersion over government levels are almost precisely as the overall dispersion. Almost all citation categories specified no government level in the majority of papers, and the second most often the local level. The only true difference is made by the four papers holding 40.5 - 50 citations: half of these studied the federal level, while the other half studied the local and municipal level. None of them did not address a particular level.

As mentioned before, lack of context inhibits practical adaptation. Moreover, not specifying the context disables other researchers to detect reasons for contradictions with other papers’ findings. An explanation for the high proportion of none-specified government levels might be that procurements at different levels of government do not differ much. The prominence of the local and municipal level accompanied with a decreasing relevance of the federal level reflect fiscal federalism and the trend to decentralize the purchase function.

#### 4.2.2. Product types

Most papers studied services over the sixteen years of research (see Table 6). The second most papers did not specify product types but referred to public procurement in general. The two least important product categories were works, studied by 21.4% of papers, and goods, studied by 18% of papers. Only one paper studied land. While land was originally no product class included in this review, the paper was relevant in that it met the inclusion criteria and therefore this extra category was required. The fact that land was studied could indicate that PP research is developing to a new state where topics really specific to public buying are addressed. The time analysis in Appendix C.5.1 shows that services' relative importance decreased from a 61.9% level in quartile one to 42.2% in the final four years. While the number of papers studying services steadily increased over the four intervals, the increase was not as great as for all other product categories. Most remarkably, the proportions for works almost tripled. Goods' relevance for public procurement research fluctuated over time, and the proportions of papers researching public procurement in general without referring to particular products slightly increased over the four quartiles.

Product type	Frequency	Percent
Goods	68	18.0%
Services	180	47.6%
Works	81	21.4%
Land	1	0.3%
no product specified	108	28.6%
Total	438	115.9%

Table 6: *Product types 1997 - 2012*

Conclusively, with regard to product types the PP field evolved to a more diversified state: where the field was mainly dominated by services in the early years, the proportions became more balanced in the later years. The rapid increase of works' relevance for research reflects governments' increasing interest in contracting-out works. As works require costly tools as well as storage place for them, their contracting-out yields substantial savings to governments, which go beyond employment costs.

While all countries except for France and Hong Kong addressed all product types, the degrees with which each country's publications researched different product types are imbalanced (Appendix C.5.2). More importantly so, the top sixteen publishing countries focused on different product types: each product is the focus of at least one country. However, the overall image gathered from the table is that indeed services were most prominent due to the fact that all countries studied them, and the majority did so in 40% of papers and more.

The first three citation categories of 0-30 citations behave according to the overall dispersion of product types (Appendix C.5.3). High impact papers that accumulated  $\geq 60.5$  citations almost exclusively studied services, while goods were only studied by one high impact paper, works were never studied and a further one of the high impact papers did not specify a product type.

#### **4.2.3. Industries and sectors**

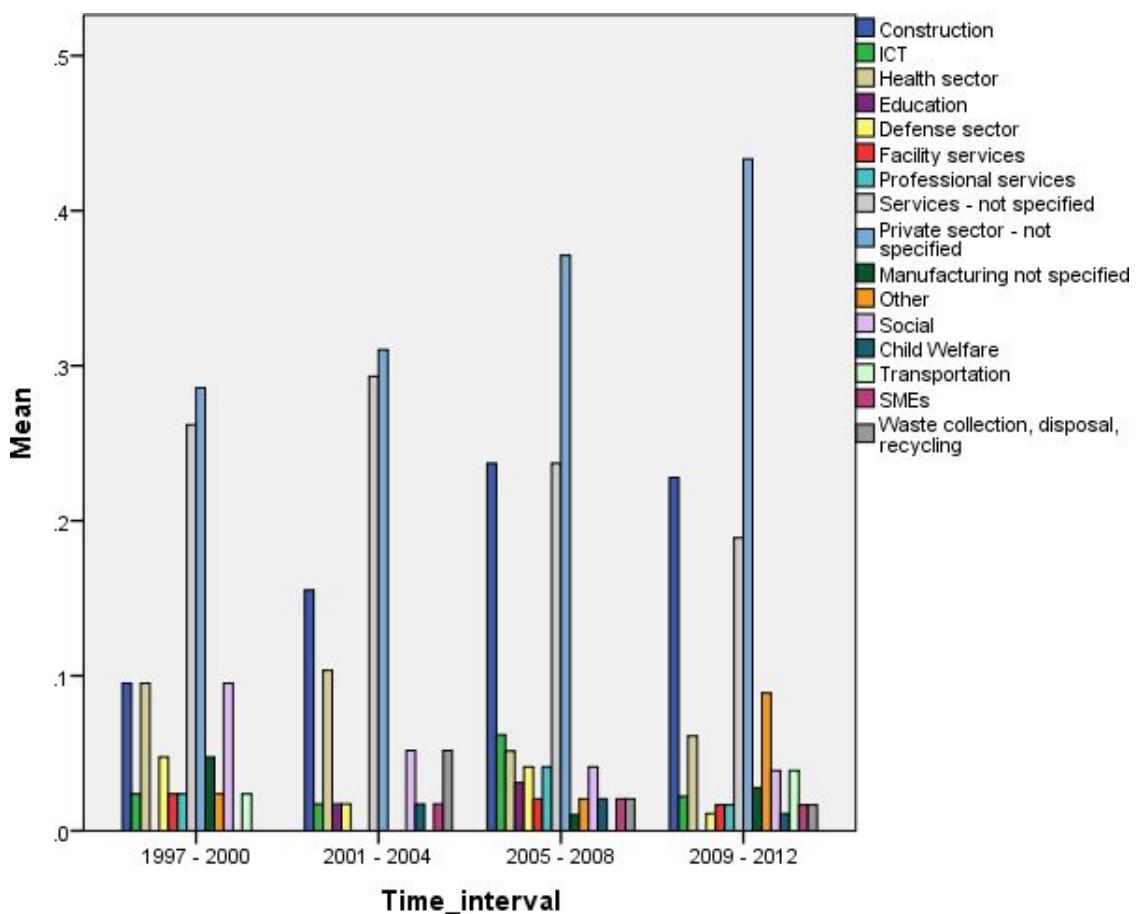
Public procurement research studied thirty-two different industries and sectors in total. Nineteen of those were only studied once and were thus grouped under

the pooled category “other”. As the additional nineteen industries and sectors would have added complexity while each being of no importance to PP research at large, this category was disregarded from further analysis. Excluding these nineteen industries, PP research focused on thirteen industries and sectors. Some papers did not specify an industry or sector. Whenever those papers referred to services, they were grouped under the pooled category “services, not specified”. Whenever articles referred to either goods or did not specify a product type while not specifying an industry or sector, they were categorized under “private sector, not specified”. As shown in Appendix C.6.1 the categories “private sector, not specified” and “services, not specified” were the most prominent over the sixteen years of research. Construction was the most often studied industry, whereas the other twelve industry and sector categories were studied far less frequently. The education sector was the least often studied, only followed by the industries and sectors grouped into the pooled category “other”.

As the time series analysis depicted in Figure 2 shows, the top categories, “private sector, not specified” and “services, not specified” were most prominent throughout all quartiles. While the construction industry was less important in quartile one, having been studied equally often as the health sector and social services, its importance to research increased notably by the second interval and remained high in the following years. From quartile three on, the pooled services category decreased in relevance, which, accompanied with the increase of the construction industry, reflects the developments of the product types services and works. The health sector had been most relevant in the first two intervals and its proportions halved in the last two. Social services were studied most often in the

first quartile. The pooled industry and sector category “other” was utilized most in the final four years. This could pose to a trend of public procurement research opening up to more industries. Likely the industry dispersions would look very different, if this assessment was conducted for the years after 2012.

Public procurement research’s main emphasis on one industry, construction, shows that the field is still in its infancy. While a wide spectrum of other industries have been addressed during the past sixteen years, they remained com-



*Figure 2: Industry proportions per time interval*

paratively understudied. To increase practical relevance, research should adopt a more balanced approach of studying all industries and sectors, which are relevant to practice. This need is further substantiated by the fact that journals from a wide range of fields showed an interest in PP. A further shortcoming with respect to practical impact is the fact that the majority of papers did not specify the industrial or sectoral context. As stated earlier, contextualization is paramount for evidence-based management.

Appendix C.6.3 shows that the three top publishers USA, UK and Australia, as well as Sweden addressed between ten and twelve of the sixteen industry and sector categories, while most other countries studied between four and six. None of the countries studied all categories. Accordingly, the top publishers and Sweden are the most diversified and show greater maturation. While the USA, UK and Australia still show a clear preference towards the three top categories, Sweden is equally focused on the transportation industry, which was studied by 28.6% of its papers compared to 23.8% of the construction industry and 19% of the pooled services and products categories. It can thus be concluded that Sweden's approach to the PP field is the most diversified from all countries.

Of the nine high impact papers that studied services, seven referred to services in general and did not further specify the service industry (Appendix C.6.4). The other two papers referred to social services. The rest two papers, of which one did not specify the product type and the other studied goods, also did not specify an industry or sector and were therefore grouped into the pooled category "private sector, not specified". This corresponds to 90% of the high impact papers

being unspecific about the supplying industry or sector. Since practitioners demand specificity to apply research findings to their strategic decision making, it is assumed that the high impact papers were of greater value for science than practice. In line with this argumentation, low impact papers addressed all industries and sectors and therefore may have accumulated more citations from non-scientific sources, such as trade magazines and books. Other researchers are encouraged to conduct a citation analysis for the low impact papers on Google Scholar or any comparable database that includes non-academic citations.

The decrease in relevance of other industries and sectors may be attributable to the trend of remunicipalisation of previously privatized public services [26] [12].

#### **4.2.4. Studied countries**

Each paper studied between zero and twenty countries. Eighty-five different countries have been studied overall, which are almost twice as many as publishing countries. While the EU is a union of states, some papers stated to have studied the EU instead of specifying particular countries. This choice was most likely motivated by the fact that public procurement in different member states of the EU is regulated by supranational laws and directives and therefore procurement methods show great similarities across European countries. Appendix C.7.1 shows that over the sixteen years, the USA, UK and Australia were the top three studied countries, followed by European countries, as well as Canada and Hong Kong. The top three studied countries remained consistent over the four time intervals (Appendix C.7.2 to C.7.5). When looking at the proportions per country over the complete time, it can be seen that even the top studied countries were mostly studied by merely

3% or less of papers, whereas research was strongly dominated by the US and UK, each of which have a share of around 20% of papers. It can further be observed that the UK's proportionate importance halved by the second interval, a trend which was followed by the USA in the third interval. This decrease resulted from an increase in other countries' importance previously not studied, such as Bulgaria and Denmark which were only studied in the fourth time interval. This development poses a trend of detachment from focusing on few highly studied countries to a more global perspective. This is an important development, especially since public procurement practices are country specific, embedded in different institutional contexts, and thus findings from other countries can only be applied with great caution.

The top ten studied countries (Table 7) appear very similar to the top ten publishing countries. To investigate whether there is an association between country of origin and studied countries, a cross tabulation was created, which confronts publishing countries with studied countries (Appendix C.7.6). For this analysis only the matching proportions were included in the table to enhance readability. Further, while forty-eight different countries published research, the two papers published by Singaporean authors did not study any specific country and therefore Singapore was excluded. Moreover, thirty-seven countries were studied, which did not publish relevant research themselves. Those additional countries were excluded since they do not add information to this analysis. The cross table shows that, in fact, researchers have focused on their home countries, or the countries of their associated institutions. Twenty-one of the forty-seven countries studied their home country in all their papers. It must be noted that a 100% rate for their

home country does not mean that the country did not study any other country, since many papers studied more than one country. For instance, if a country only published one relevant paper, which researched public procurement in the context of five different countries, then each of those countries would have been studied in 100% of the country's publications.

<b>Studied country</b>	<b>Frequency</b>	<b>Percent</b>
USA	85	22.5%
UK	77	20.4%
Australia	28	7.4%
Sweden	17	4.5%
EU	15	4.0%
Canada	12	3.2%
Italy	11	2.9%
Hong Kong	10	2.6%
Spain	10	2.6%
Finland	9	2.4%

*Table 7: Top 10 Studied countries 1997 - 2012*

Only seven papers studied their home country in less than 50% of papers, of which three exclusively studied other countries. Those three countries are Colombia, which studied the EU, Bosnia-Herzegovina, which studied Croatia, and Luxembourg, which focused on the EU. All three of these countries only published one relevant paper. It must further be noted that each contributing author's country of institute was included in this analysis. The one paper published by Colombia was published in co-authorship with six other authors, of which two are associated with Mexico, three with Spain and one with Brazil. The three Spanish co-authors may be the explanation why Latin American researchers would study the EU, especially after the analysis revealed that home bias is the norm. A further insight that is gained from including each co-author's country as an individual publisher

<b>Methodology</b>	<b>Frequency</b>	<b>Percent</b>
Qualitative	234	61.9%
Quantitative	154	40.7%
Total	388	102.6%

*Table 8: Methodologies 1997 - 2012*

and finding that researchers are home biased is that co-authorships tend to be domestic as opposed to global. In line with the annotation that public procurement systems vary across countries, this home bias seems logical. However, the differences across countries may provide researchers invaluable insights into alternatives and foster thinking outside the institutional box.

### **4.3. Predominant research designs**

#### **4.3.1. Methodologies**

While it was aspired to only group each paper into either the qualitative or quantitative category, ten papers clearly followed a mixed approach and were therefore categorized as applying both methods. The most frequently applied methods overall (Table 8) were of qualitative nature (61.9%) and they continued to stay most important throughout the time intervals one to three (Appendix C.8.1). In the fourth time interval, however, quantitative methods' application almost quadrupled, which led to a decrease in importance of qualitative methods by almost 30%. As a result, both methods were of almost equal importance in the final four years.

What becomes apparent from the country analysis of employed methodologies (Appendix C.8.2) is that application of qualitative and quantitative research meth-

ods varied across countries. The overall tendency to prefer qualitative research is followed by five of the sixteen countries: Australia, Canada, Sweden, UK and especially the Netherlands, which adopted the qualitative approach in 87% of papers. Three countries preferred the quantitative methodology: Spain, Taiwan and foremost China, which applied the quantitative approach in 94.1% of papers. For the other eight countries adoption of both research methods is close to balanced.

All citation categories conducted qualitative analysis more often than quantitative, with the exception of papers falling into the category of 30.5 - 40 citations, which applied both methodologies equally often (Appendix C.8.3).

#### 4.3.2. Time dimensions

As can be seen in Table 9, the majority of papers designed their research cross-sectional and not longitudinal. This preference for the snapshot perspective stayed relatively stable through all four quartiles, and was highest during the years 2005 to 2008, when 87.6% applied it (Appendix C.9.1). Some countries relied exclusively on the snapshot perspective (Appendix C.9.2), namely Canada, Germany, Hong Kong and Norway. Taiwan and Finland applied both time dimensions close to equally often. None of the sixteen top publishing countries preferred the longitudinal study design. Overall, Taiwan applied this design proportionately most often.

According to Appendix C.9.3 all citation categories mainly relied on the cross-sectional approach and no apparent differences can be observed between low, medium and high impact papers. The second highest citation category of 100.5

Time dimension	Frequency	Percent
Cross-sectional	301	79.6%
Longitudinal	77	20.4%
Total	378	100.0%

*Table 9: Time dimensions 1997 - 2012*

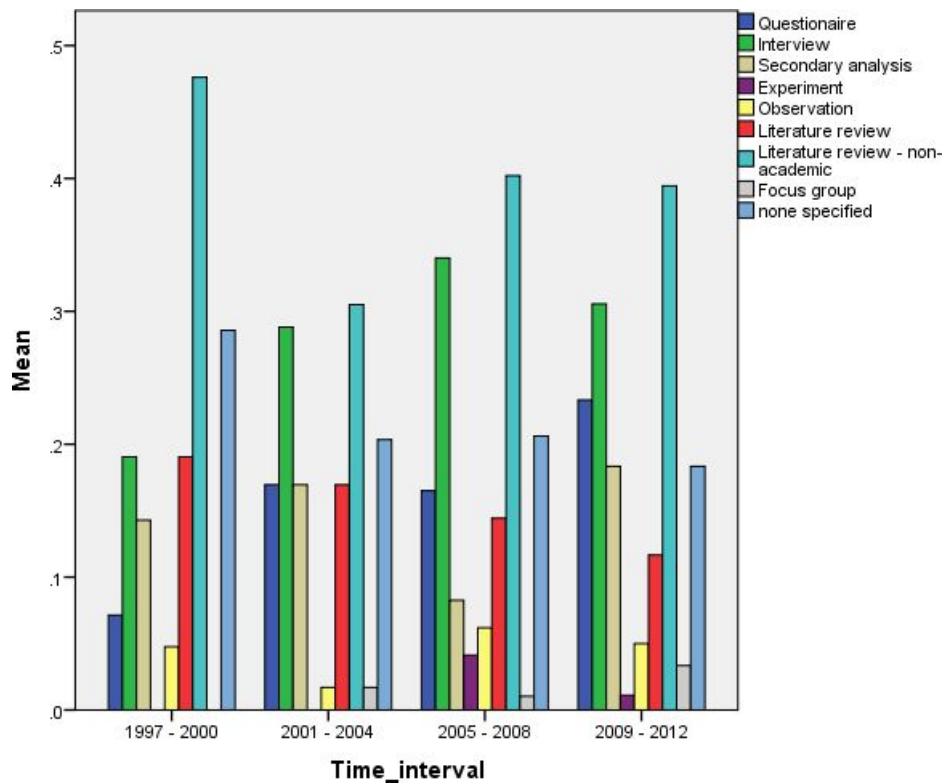
to 110 citations utilized the longitudinal design in 66.7% of papers. But as the category consists of three papers only, this cannot be interpreted as a sign of highly cited research making a difference. According to Babbie (2006) [8], generalizations should only be made with great caution from cross-sectional studies. Therefore, public procurement researchers are advised to adopt the longitudinal design more frequently to make findings meaningful to other contexts.

#### 4.3.3. Data collection methods

As shown in Appendix C.10.1, reviews of non-academic literature have been the most prominent data collection method over the sixteen years, utilized by 39.2% of papers. Literature was characterized as non-academic when it pertained to non-scientific literature, such as books, law texts, business reports, websites, manuals, contracts and similar written sources. Interviews were utilized the second most often. The third highest proportion of papers did not specify their data sources. Specifying data sources makes research more transparent and enables other researchers to test the findings. Accordingly, all researchers are advised to articulate their data sources clearly to develop the PP research field to a more systematic science. Questionnaires were applied the fourth often, followed by secondary analysis and reviews of academic literature. Observations, focus groups and experiments were rarely utilized. The time analysis depicted in Figure 3 shows that

this relevance dispersion remained stable through the four time intervals (detailed proportions can be found in Appendix C.10.2). Usage of questionnaires, however, increased significantly: while this method was used by 7.1% of papers in the first quartile, 23.3% of papers used them in the final four years. While interviews remained the second most used data collection method over all intervals, their share increased from 19% in quartile one to 30.6% in quartile four. Both academic and non-academic literature reviews' importance decreased over time. The three least common collection tools observation, focus group and experiment were utilized more frequently in the later time spans, which may pose to a trend of these methods becoming more important for PP research in the upcoming years. Most noticeably, the share of papers not specifying their data sources almost halved over the course of years, which is hoped to be an ongoing trend towards more specificity in PP research.

With respect to country specific differences (Appendix C.10.3), it can be observed that except for Canada and Germany all countries studied non-academic literature more frequently than academic literature for the data collection. While usage of scientific literature may pose to a more scientific approach, high usage of non-scientific literature can be regarded as a sign of highly practice oriented research. Canada, Germany and France are the countries with the highest proportion of unspecified data sources. Questionnaires were utilized most often in Taiwan (64.3%). This high proportion may be reasoned in the fact that Taiwan was also the country that adopted a longitudinal approach most often. Questionnaires conducted over several moments in time are an adequate collection tool to assess changes in opinion over time. Overall, focus groups, observations and



*Figure 3: Data collection methods per time interval*

experiments are rarely used data collection tools. Clearly sticking out is China, which used focus groups in 23.5% of papers, and Denmark, which conducted observations in 21.4% of papers. The USA is most diversified in its data collection methods in that all methods have been applied by its authors. The UK is a close follower, having applied all of the data collection methods except for experiments. However, even these top diverse publishers show great variations in the application of different data sources, as do all of the other top countries. It can thus be concluded that even as researchers are beginning to utilize an increasing amount of methods, which poses to a maturing field, this maturation is still in its infancy as each country still has clear favorites.

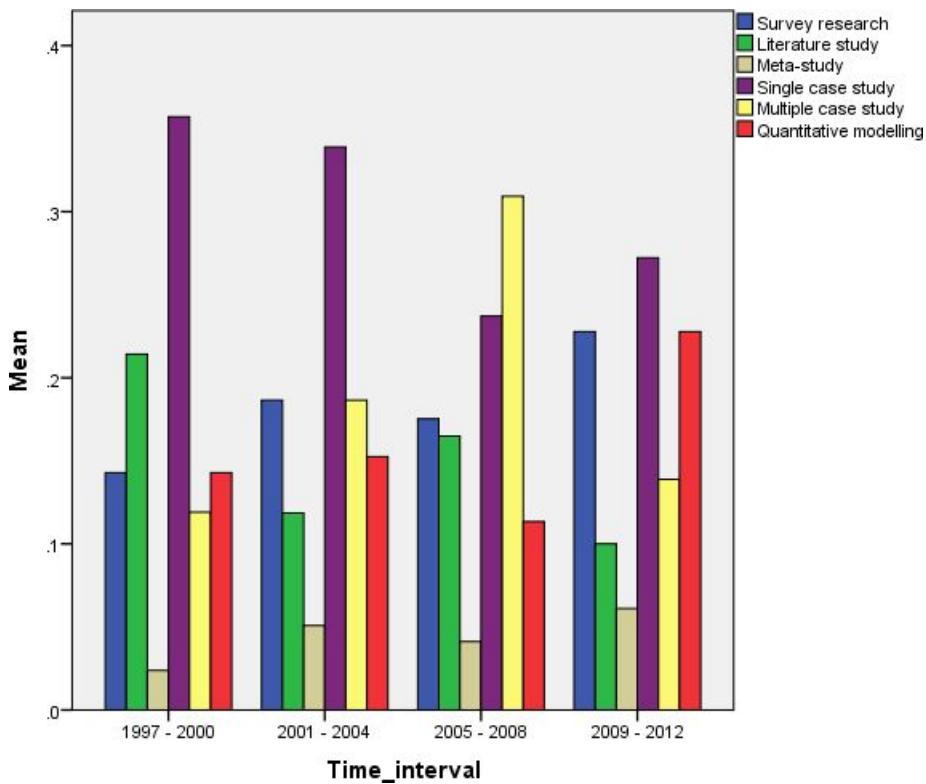
As shown in Appendix C.10.4, low impact papers with  $\leq 20$  citations applied all collection methods, with non-academic literature reviews as the most prominent collection tool, followed by interviews and questionnaires. While high impact papers focused on few, highly utilized sources, the low impact papers' utilization of the underused collection methods observation, focus group and experiment may be attributable to the fact that low impact papers are more likely to have been published in the later years of this review when those methods became more important. Further, low impact papers have high proportions of unspecified data sources. Here the top impact papers made a real difference in that all of the top ten papers cited by  $\geq 60.5$  articles specified their sources. While a conclusion can only be drawn with caution due to the different category sizes, this confirms the previously made annotation that good research is specific. All but one of these high impact papers collected their data by means of literature reviews, both academic and non-academic. Secondary analysis and interviews were utilized by three of the high impact papers while the one top impact paper with 135 citations relied exclusively on questionnaires. None of the high impact papers conducted experiments, observations or focus groups.

Overall, the high importance of non-academic literature, as well as the survey methods interview and questionnaire indicate that PP research has been more practice than theory oriented. Surveys of randomly sampled populations can provide findings with higher generalizability than any other observational study [8], which contributes to the field's practical relevance and to what van Aken (2004) calls design sciences: sciences directed at solving real life problems as opposed to science for the sake of developing theories [44]. Focus groups, which have been

rarely used, could provide researchers a deeper understanding as they enable discovery of unanticipated factors due to the rather unrestricted dynamic of group discussions [8]. A shortcoming of survey methods is that they record self-reports, and therefore can be biased by several factors, such as respondents' experience level. Podsokoff and Organ (1986) describe the main problems of self-reports to be the consistency motif, social desirability and non-verifiability [36, pp. 533 - 535]. Non-scientific literature, too, can hold whitewashed, non-verifiable information, such as corporate websites or business reports. Accordingly, PP researchers are advised to keep those shortcomings in mind and to either resolve to other, more reliable measures, such as observations, or to assess the validity of reported information with other sources. Academic literature reviews and secondary analyses utilize past researchers' efforts and findings and are thereby important in developing the field to a state of proven findings and generally accepted paradigms. The establishment of accepted research paradigms is a further indicator of mature fields [15]. In this regard, PP researchers are advised to utilize those tools more often.

#### 4.3.4. Research strategies

Appendix C.11.1 shows that case studies were greatly utilized in PP research: single case studies were the most often pursued research strategy (28.3%), and multiple case studies were conducted the third often over the sixteen years of research, in 18.8% of papers. Multiple case studies, survey research and quantitative modelling were utilized almost equally often, each between 17.7% and 19.8%. Literature studies were conducted the second least often, by 13.2% of papers. As the time series analysis of Figure 4 shows, literature studies used to be of greater



*Figure 4: Research strategies per time interval*

importance in the first four years of analysis. Meta-studies were conducted the least often, both overall, as per time interval, although their share tripled until the fourth time interval when 6.1% of papers conducted them (for a more detailed overview of proportions per quartile, see Appendix C.11.2). Survey research and quantitative modelling gained in relevance over the passage of the four intervals: while both were the third important strategies pursued in the first quartile with a share of 14.3% of papers each, they were applied the second most often in the final four years, each by 22.8% of papers.

Although overall, literature study has been the second least applied research, it was conducted by most of the Australian papers (Appendix C.11.3). For Canada

the proportions per strategy are equally spread, exceptions being that meta-studies were never conducted and survey research in merely 5% of papers, translating to one paper. China is noticeably specialized in quantitative modelling, applied by 52.9% of papers, which is in line with their high proportion of quantitative research (94.1%). While also adopting survey research in 35.3% of papers and to a lesser extent single case studies (11.8%), China's publications disregarded literature and meta-studies, as well as multiple case studies. Finland (20%) and the Netherlands (17.4%) conducted meta-studies the most often, while this strategy is the least important for all other countries. Overall, survey researches are the most prominent on a global level, having been applied by all countries, followed by single case studies (exception Hong Kong) and multiple case studies (exceptions are Taiwan and China). Some countries' papers applied a mix of consecutively pursued strategies. As a result, some research strategy proportions add up to sums greater than 100%.

Looking at the proportions for the different citation categories (Appendix [C.11.4](#)) shows that high impact papers do differ from low and medium impact papers: none of the high impact papers with citations greater than 60 adopted three of the top research strategies, namely case studies and quantitative modelling. Instead, literature- and meta-studies were most prominent with high impact papers, which were overall the two least commonly applied strategies. Conclusively, high impact papers utilized existing knowledge to generate new insights through synthesis, while low and medium impact papers did not orientate themselves by past research. This is in line with the earlier made annotation that literature reviews and meta-analyses are more scientific strategies.

The high prominence of case studies further supports the notion that PP research is very practice oriented. Case studies are valuable in developing an understanding of one particular phenomenon or event holistically. A shortcoming of single case studies is their generalizability to other units, as the information gathered is strongly embedded in the constructs of the unit of analysis [29]. Multiple case studies improve generalizability since findings can be compared, analyzed and contrasted [24]. The overall low prominence of literature studies and meta-studies shows that research findings have rarely been synthesized in the past sixteen years. As synthesis delivers generalizable findings, PP researchers are advised to begin applying both strategies more frequently.

## 4.4. Topics

### 4.4.1. Topics

The topics uncovered during a scoping study were included in the data extraction form and extended during the screening process. In total, the 378 reviewed research papers addressed twenty-two sub-fields, including eleven that were only studied once or twice and which were grouped into a pooled category entitled “others”. Table 10 shows the overall relevance of each topic. Procurement strategies were studied by the majority of papers, 61.4%, while the second most often studied topic, selection, was assessed by a comparatively much lower share of 17.2% of papers. This high difference in relative share shows that public procurement research was very focused on the topic of procurement strategies. PP status overview articles assessed in an exploratory manner the procurement practices applied by governments. What differentiates these articles from the others is that they do not focus on one specific aspect, but provide an overview of what is current practice

in public procurement at large. Effects of PP, studied in 5.8% of articles, refer to unsought effects in that the effect, negative or positive, was not intended when designing and applying the procurement method. Intended effects, on the contrary, may include a positive impact on the environment after pursuing a green strategy (GPP). Those effects will have been presented in the context of the procurement strategy GPP and therefore were not included in the effects category. Trade discrimination and anti-corruption were studied in 3.7% and 2.6% of papers respectively. When discrimination was an unsought effect it was categorized under “effects of PP”, whereas active discrimination was grouped under either trade discrimination or anti-corruption. Although the two topics of anti-corruption and trade discrimination are closely related, they can be viewed as the positive and negative ends of the same line: articles grouped under trade discrimination analyze reasons and positive effects, for instance on domestic economies, for actively discriminating against particular suppliers. Anti-corruption papers focus on the negative effects that corrupt behaviour has, such as decreased competition.

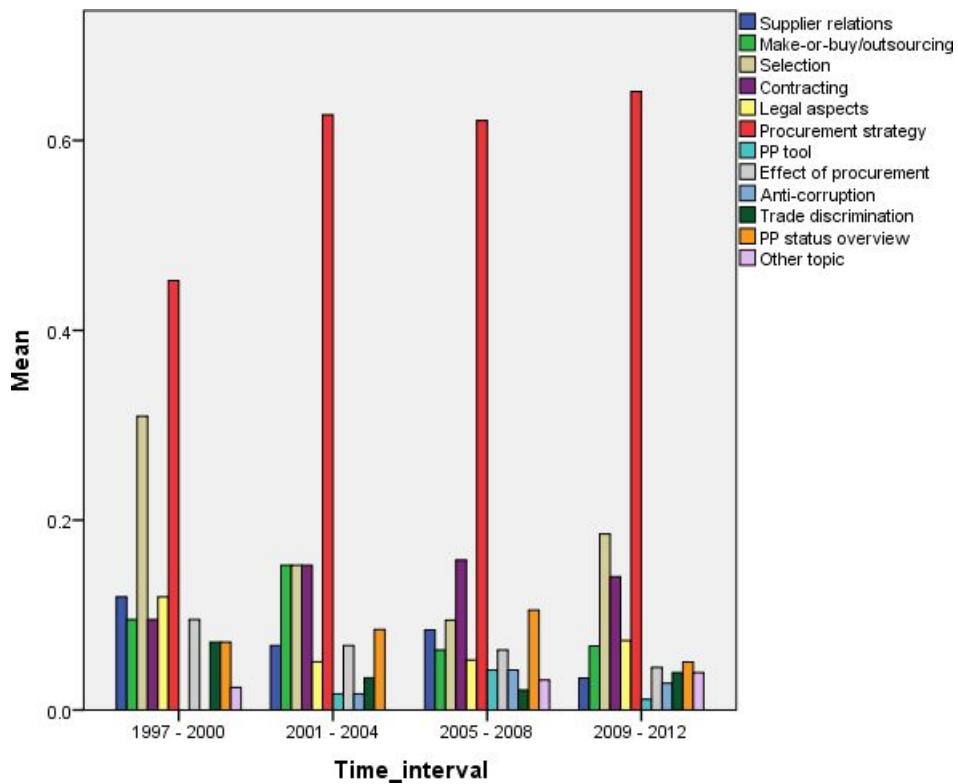
The time series analysis depicted in Figure 5 shows that procurement strategies have been the most often studied topic throughout all four time intervals, gaining more relevance with every quartile (for a more detailed overview see Appendix C.12.1). The topic selection was most important in the first four years, when 31% addressed this topic, making it a comparatively close follower of the top studied topic procurement strategy, then studied by 45.2% of articles. In quartile four, however, only 18.9% of papers studied the selection process, making the topic still the second most important subject, yet of far less importance than procurement strategies, which were then studied by 65% of papers. Overall, all topics

<b>Topic</b>	<b>Frequency</b>	<b>Percent</b>
Procurement strategy	232	61.4%
Selection	65	17.2%
Contracting	53	14.0%
Make-or-buy/outsourcing	31	8.2%
PP status overview	27	7.1%
Legal aspects	26	6.9%
Supplier relations	25	6.6%
Effect of procurement	22	5.8%
Trade discrimination	14	3.7%
Anti-corruption	10	2.6%
PP tool	7	1.9%
Others	11	2.9%
Total	523	138.4%

*Table 10: Topics 1997 - 2012*

but procurement strategy, contracting, PP tools and anti-corruption decreased in relative importance between the intervals one to four. The result is that in the final interval the three top studied topics procurement strategy, selection and contracting were studied in 97.8% of papers. As noted in the operationalization of sub-question 4 in section 3.1, each paper was categorized as addressing a maximum of two subjects. Accordingly, the sums of all topic proportions are greater than 100%.

A further table was created showing how many countries researched each topic (Table 11). The motivation was that it was suspected that the top publishers UK and USA and to a lesser extent Australia dominated PP research that much that their most important topics merely appear to be of overall high relevance, while in fact the less important publishing countries may have had very different research foci. This suspicion was, however, not confirmed, but individual topics' relevance



*Figure 5: Topics per time interval*

remained mostly unaffected with mere slight changes. Still, two differences become apparent through this analysis: the topics of supplier relations and effect of procurement were of medium importance in the previous analysis, while both were the least important topics based on this analysis, each only having been studied by seven and eight of the forty-nine countries including the category of unknown origin.

In conclusion, PP research is highly focused on one topic: public procurement strategies. To enable practitioners to consult scientific findings, research should be more versatile. An explanation for the low and decreasing share of other topics might be that many subjects are also discussed in general procurement research

<b>Topic</b>	<b>Amount of countries</b>
Procurement strategy (232)	40
Selection (65)	25
Make-or-buy (31)	17
Contracting (53)	17
Legal aspects (26)	14
PP status overview (27)	12
Anti-corruption (10)	9
Trade discrimination (14)	9
Others (11)	9
PP tool (7)	8
Effect of procurement (22)	8
Supplier relations (25)	7

*Table 11: Topics' global relevance 1997 - 2012*

and that their similarity to the private sector may not require specialized research. But it is believed that practitioners are confronted with more problems that could be assessed scientifically. A dialogue between scientists and practitioners could provide useful insights into other relevant topics.

#### **4.4.2. Procurement strategies**

The highly studied topic category “procurement strategy” was further analyzed with regard to addressed types of strategies. In total, twenty different strategies have been studied (Table 12). Contracting-out, and PPP were top studied strategies, accounting for 32.3% and 31.9% of strategy papers. On the third rank, but with much lower proportionate share, is the green public procurement strategy (GPP). GPP is followed by e-procurement and innovation procurement. All other sixteen strategies were rarely studied: while joint procurement was addressed by five articles, followed by de-/centralization studied by three, the other strategies

Procurement strategy	Frequency	Percent
Contracting-out	75	32.3%
PPP	74	31.9%
GPP	29	12.5%
e-Procurement	16	6.9%
Innovation procurement	12	5.2%
Joint procurement	5	2.2%
De- / centralization	3	1.3%
Lean PP	2	0.9%
Prime contracting	2	0.9%
Market-based PP	2	0.9%
Emergency contracting	2	0.9%
Mixed service delivery	2	0.9%
Early contractor involvement	1	0.4%
Shared services	1	0.4%
PP Partnerships	1	0.4%
Social procurement	1	0.4%
Eminent domain vs. purchase of land	1	0.4%
Offsets	1	0.4%
Promoting SMEs	1	0.4%
Dual sourcing	1	0.4%
Total	232	100.0%

*Table 12: Procurement strategies 1997 - 2012*

were only studied once or twice.

The time series analysis (Appendix C.12.2) shows that PPP continuously gained in importance over the four time intervals, while the top studied topic of contracting-out decreased notably in importance, from a 78.9% level in quartile one to 22.2% in the final four years. This decrease may be attributable to many countries' remunicipalisation efforts. These developments led to PPP becoming the most often studied strategy in quartile three, while in the previous eight years of research contracting-out was most often assessed. While GPP was overall the third most

often studied strategy it only became important to the field in the third time interval, while it was never studied in the first four years and only once in the second. This reflects the more recent awareness that governments can foster the worldwide efforts to lower economies' ecological footprints. Innovation procurement, overall the fifth important strategy, only became of relevance in the third interval, when one paper focused on this strategy, and of importance in the final interval, when 9.4% of papers studying procurement strategies assessed the topic. This could be a result of the global financial crisis, which weakened economies worldwide: increased innovation has the potential to foster economies by increasing efficiency in processes, and by stimulating exports of innovative products. E-procurement and joint procurement research was published throughout the last three quartiles with stable shares. The time series analysis further shows that, whereas each of the other studied strategies were only studied once or twice, the total amount of papers researching other strategies than the top six increased over time. This indicates that PP research, while still being mainly focused upon few strategies, is widening its research focus.

To investigate whether the top publishing countries influenced the importance rankings of studied procurement strategies, Table 13 shows how many countries studied each strategy. It can be observed that the importance rankings are mostly the same and that the top publishing countries only influenced the previous findings slightly.

<b>Procurement strategy</b>	<b>Amount of countries</b>
Contracting-out (75)	23
PPP (74)	20
GPP (29)	12
e-Procurement (16)	12
Innovation procurement (12)	8
Mixed service delivery (2)	4
De- / centralization (3)	3
Lean PP (2)	2
Joint procurement (5)	2
Prime contracting (2)	2
Market-based PP (2)	2
Early contractor involvement (1)	1
Shared services (1)	1
Emergency contracting (2)	1
PP Partnerships (1)	1
Social procurement (1)	1
Eminent domain vs. purchase of land (1)	1
Offsets (1)	1
Promoting SMEs (1)	1
Dual sourcing (1)	1

*Table 13: Procurement strategies' global relevance 1997 - 2012*

#### 4.4.3. Procurement tools

Table 14 shows that each of the seven papers on PP tools studied a different tool. Accordingly, no time series analysis was conducted. It was already observed in the time series analysis conducted on studied topics (Appendix C.12.1) that PP tools were studied in the last three intervals with a stable share of total publications. What can be observed from this table is that all tools are aimed at systematizing procurement decisions by means of models that mathematically determine the best alternative. This is believed to be reasoned in the fact that public procurement agents are required to make rational decisions at a high level of transparency.

Tool	Frequency	Percent
Decision technological solutions (to make procurement processes more transparent)	1	14.3%
Data mining model	1	14.3%
Discrimination assessment tool	1	14.3%
Annuity model to assign PPP project risks	1	14.3%
Model for calculating optimal concession period	1	14.3%
Priority ranking scheme for green procurement	1	14.3%
e-Government Procurement Observatory Maturity Model (eGPO-MM)	1	14.3%
Total	7	100.0%

Table 14: **Public procurement tools 1997 - 2012**

#### 4.4.4. Procurement effects

From the articles on unsought effects of PP, effects on the economy played the biggest role (Table 15), studied by 45.5% of papers that studied effects. The other effects were far less important: effects on human rights and the society at large were studied by 13.6%, effects on SMEs, as well as on PP efficiency and the private contracting party by 9.1%, corresponding to two articles per subject.

Effect	Frequency	Percent
Economy	10	45.5%
Human rights, society	3	13.6%
SMEs	2	9.1%
PP efficiency	2	9.1%
Private contractor	2	9.1%
Ethics	1	4.5%
Quality	1	4.5%
Government accountability	1	4.5%
Total	22	100.0%

Table 15: **Effects of public procurement 1997 - 2012**

Finally, effects on ethics, product quality, and government accountability were only studied once each, corresponding to 4.5%. It must be noted, though, that the topic of government accountability was researched more often. But instead of discussing it as an unsought effect, other papers researched it in the context of how to account for this through contracting. As the time series analysis shows (Appendix [C.12.3](#)), economical effects were studied in all intervals with equal importance, but with a slight decrease in the third quartile. The high relevance of economic effects is in line with the role that PP plays in strengthening economies. Noticeable is that even the other low relevance effects with two or three articles had each one article published over multiple intervals. This shows that these effects were deemed unimportant by researchers throughout the sixteen years and were not more important in specific intervals, as they neither can be expected to increase in relevance in the years succeeding 2012. Still, most effects were studied in the last two quartiles, which poses a trend of research becoming more concerned with PP effects overall.

#### **4.4.5. Less relevant topics**

Table [16](#) displays the topics that were less relevant to PP research over the past sixteen years and have only been studied by a maximum of two papers each. Those topics were grouped under the category “others” in the previous topic analyses. Each of the topics had little overall relevance and was therefore not further analyzed. However, future researchers may be interested in developing these sub-fields.

#### 4.4.6. Study characteristics per topic

This section investigates whether the topics addressed by research show differences in study characteristics. The pooled categories “procurement strategy”, “type of effects” and “others” were split up for these analyses so that characteristics per topic can be observed, which provides more insights than if the categories remained pooled. The pooled category PP tools was not split up, since each tool was only studied once. While these cross analyses provide insights into what is common practice in research, the main aim is to provide other researchers interested in particular sub-fields with a clear overview of how research has been conducted in the past and which designs may have been underused and therefore pose to potential gaps in generalizability of findings. No time analyses were conducted for the cross tabulations, as this would have exceeded the time and capacity limitations of this research. However, other researchers are encouraged to use the data provided in this work and analyze the cross tabulations regarding time trends.

Topic	Frequency	Percent
Purchase shocks	2	18.2%
Public versus private procurement	1	9.1%
PP cost drivers	1	9.1%
SMEs	1	9.1%
PP markets	1	9.1%
Ethics in PP	2	18.2%
Project based procurement routes	1	9.1%
Organization of PP function	1	9.1%
Critique of PP research practice	1	9.1%
Total	11	100.0%

Table 16: *Other topics 1997 - 2012*

As shown in Appendix C.13.1, research on the top studied topics did not address a government level in the majority of papers, the highest proportion can be observed for research published on the subject of PPP (77%). Besides this limitation, the top subjects were researched against all government levels, which indicates maturation and fosters practical relevance. All but articles on legal aspects and trade discrimination studied the local level most frequently. From the top topics e-procurement research studied the local level most often, in 43.8% of papers. Legal aspects were most often assessed against the background of municipal procurements, whereas trade discrimination articles most often studied the federal level. With the exception of trade discrimination, PPP and innovation procurement, the federal level was least prominent with all of the top subjects. Noticeable is that research on make-or-buy decisions and on GPP studied the federal level in only one research paper each.

With respect to studied product types (Appendix C.13.2) it can be observed that PPP research mainly focused on the procurement of works (51.4%), and least from all top topics on the procurement of goods (1.4%) Works were studied least often by the topics innovation procurement (8.3%), contracting-out (4%), GPP (6.9%), e-procurement (6.3%), trade discrimination (7.1%) and by papers on anti-corruption, which never studied works, nor services, but instead exclusively focused on goods (30%), while not specifying product types in 70% of papers. Research on contracting-out studied goods proportionately least often and focused on services in 86.7% of papers. Moreover, it was the most specific sub-field with the lowest share of unspecified products. Innovation and green procurement are the only topics that were mostly researched in the context of goods (66.7% and 41.4%

respectively).

Contracting, PPP and contracting-out were researched against thirteen of the sixteen industry and sector categories, including the two pooled categories (Appendix C.13.3). As the other top studied topics were researched against less backgrounds, those three sub-fields can be regarded as the most developed. E-procurement was only researched against three categories, namely the pooled categories, as well as one paper against SMEs. This finding indicates that research on this sub-field is very limited, as well as unspecific with respect to industrial and sectoral context and needs to be approached against more diverse industry and sector contexts.

#### 4.4.7. Research designs per topic

Whereas according to the analysis on methodologies employed (section 4.3.1), qualitative research was most common, the juxtaposition displayed in Appendix C.14.1 shows that the approach taken is strongly dependent on research topic: for instance 71% of the thirty-one papers on make-or-buy decisions applied the quantitative method. Given that make-or-buy decisions are to a large extent of an economic kind, this distribution appears logical. The distribution is similar for papers on the topic of selection. Here, too, decisions are often characterized by economic assessments of the best supplier or partner. According to Babbie (2006), quantification makes findings more “explicit” [8, p. 23], while also fostering syntheses, thus the comparison and pooling with other findings. It is, however, believed that research on these two sub-fields of PP could gain from employing both methodologies more equally, since this will yield a more complete understanding of phenomena. Op-

posed to this, researches on the topic of e-procurement have almost equally applied both the qualitative and quantitative research methods.

For the cross tabulation time dimensions per topic (Appendix C.14.2) the picture is clearer in that most topics studied by more than two papers show a clear favoritism towards cross-sectional research. Papers on the topic of e-procurement exclusively relied on the snapshot perspective. Both time dimensions were applied almost equally often by papers on the topic of innovation procurement, PP status overview and trade discrimination. These topics can accordingly be regarded as most developed with respect to the time perspective.

With respect to data sources, Appendix C.14.2 shows that the top topics utilized close to all data collection methods, although with differing proportions. Legal aspects rarely utilized the overall very prominent survey methods: 3.8% of its papers report findings of questionnaires and 7.7% of interviews. Instead, 69.2% of papers on the topic reviewed non-academic literature. This high proportion is attributed to the study of law texts and directives, which informed those researches. We believe that this sub-field could gain interesting insights from practitioners' experiences with legal directives and frameworks. Neglecting personal experiences may otherwise result in research of little or detrimental practical relevance.

Seven of the fifteen top studied topics utilized all research strategies (Appendix C.14.2), namely make-or-buy, selection, contracting, legal aspects, PPP, innovation procurement and contracting-out. Although the proportionate share per strategy varies per subject, this is an indication of maturing sub-fields. Most of the other top

topics applied five of the strategies, the only exception being e-procurement, which used only half of them. This finding reinforces the previously made observation that research on e-procurement is still very underdeveloped and needs to adopt a more versatile perspective.

#### 4.4.8. High impact papers per topic

Appendix C.15 holds tables per research topic listing all papers that addressed the topic descending by mean citations. These tables are especially addressed at researchers of the different sub-fields of public procurement research to enable them to quickly detect the most influential papers. A shortcoming of citation analysis is that recent papers have had less time to accumulate citations. However, one paper from 2010 is still the 21<sup>st</sup> most often cited paper overall, and the third most cited article in its research sub-field. Therefore, it is believed that while acknowledging the discrimination against recent papers, research with high relevance to science will have gathered notable citations in the past least one year (status March 2014). The citation analysis is based on mean scores of the Scopus and Web of Science citation counts. We included both databases' citation counts as citations differ per database and therefore reliance on only one source may over- or undervalue individual papers. A mean citation count is believed to provide a more realistic assessment of each paper's scientific impact. Also, not every paper is enlisted in both databases, therefore considering only one of them could mean that some papers could not be assigned an impact assessor although they may be of value to research. One paper, for instance, was not listed in the Web of Science database but accumulated a citation count of 55 in Scopus, making it the eleventh most cited paper overall and the third important research publication on the highly

studied topic of PPP. The citations were extracted from the databases Scopus and Web of Science on the 15<sup>th</sup> and 16<sup>th</sup> of March, 2014. In case a paper was not listed in one of the databases the cell for this database was left blank for the article and the mean citation count was set equal to the citations of the database holding the article. A zero means that the article was listed in the database but did not receive any citations, in which case the mean citation count was the mean of both databases. Each paper was categorized as addressing at least one and a maximum of three research topics. Accordingly, many papers will be included in more than one subject table.

## 5. Review limitations

A limitation of this review is that the categorizations of all included articles were done by the main author alone. Next to the relevance assessments, which were mostly conducted in a team, the data extraction stage is crucial to the validity of findings and their correct representation of the field. As this limitation was known at the beginning of the research project, this paper aimed at making the review process highly transparent to enable other researchers to test the findings. While replication is both personally desired, it is also necessary to make this work relevant to PP research. Since numerous interesting findings were discovered, it is considered to be a loss, if they were never published.

A further limitation regards the exclusion of articles published in other languages than English. Egger et al. (1997) found that for medical sciences researches were more likely to be translated in English, if they found significant results [23]. This limitation both negatively affects findings from any further syntheses conducted

on sub-fields on the basis of this review, as it also bears the possibility that more topics have been addressed by research than have been reported in this review.

Restricting the search for relevant papers to only two databases may have omitted relevant papers, since even the renowned databases Scopus and Web of Science do not hold all relevant articles. This apprehension was confirmed by the fact that ten years of publications from the *Journal of Public Procurement* were missed because the journal was rejected by Thomson Reuters, and only accepted by Scopus in 2012.

Grey literature, which is advised to be included in systematic literature reviews, was disregarded. Given that this review, too, will become grey literature, exemplifies the kind of information that might have been missed out by excluding unpublished literature and books. Moreover, including only published articles in this review may bias future researchers' efforts in synthesizing findings of sub-fields on the basis of the articles provided in this review, since according to Davies (2000) the publication bias may negatively affect validity of findings as journals tend to favour publishing positive results [18].

## 6. Directions for future research

During analysis, an ever increasing amount of interesting research questions became apparent. But the research frame of this review had been formulated beforehand and there was a limitation as to what can be achieved within a limited time period. It is believed that the data provided in this review provides a valuable source for further investigations and the authors would be glad, if other researchers

utilized them in that way. Some suggestions for future research are presented here.

To address this review's limitations, other researchers are encouraged to replicate the work, either partially or in full, to validate the discovered findings. Full replications should take account of the limitations of this review such as conducting it alone and restricting it to published, English articles, listed in two databases with quality requirements, which may be too strict for a field that is still in its infancy.

As was shown by the fact that meta-studies, as well as literature reviews of scientific literature were rarely utilized in PP research, researchers are strongly encouraged to begin to apply those measures more often, since synthesis of existing knowledge fosters maturation and enables development of definite findings.

While this review has provided a detailed overview of researched topics and the designs applied to study them, researchers should take these findings into account when designing upcoming studies. To increase versatility and increase generalizability of findings, subjects should be assessed against different backgrounds and by different means. As shown in the topic analyses, increase in versatility is especially needed for research on e-procurement, which was approached highly limited in the past.

A general note to researchers is to make their studies more transparent by defining employed methodologies, such as data sources, explicitly. Moreover, as the prevailing lack of context with regard to government levels, product types, as well

as industries and sectors hampers both practical relevance, as scientific assessment of reasons for contradicting findings, researchers should place their works against clear contextual backgrounds.

While this systematic literature review concentrated upon cross-country differences, it would be interesting to detect most active institutions on the field, as well as inter-institutional collaborations.

The high amount of 199 individual journals publishing relevant research may be analyzed with regard to most prominent backgrounds to detect which scientific fields are the main stakeholders of PP research.

This review does not include an analysis of most relevant topics per publishing country. Since public procurement practices are embedded in local system contexts, such analyses may provide interesting insights as to how PP focuses differ globally.

The citation analysis conducted in this review was limited to citations of Scopus and Web of Science. As PP is very practice oriented, it is likely that paper impacts differ when non-scientific citations are included. Such analysis could provide valuable insights into the potential differences in topics' relevance to practitioners. Potentially observed differences could then inform future research topics, which would both make the field more diverse, as it would also increase practical relevance.

Finally, replication of this review in a few years time is encouraged to assess how the field developed after 2012. Since recent trends have been observed, such as the study of more diverse industries and sectors in the later time intervals, and an increasing relevance of European publishers, the research field may appear quite different in the years after 2012.

## 7. Summary and conclusion

This review analyzed the status of public procurement research and how it developed globally between the years 1997 and 2012. We found that the relevance of the field, assessed by annual publications, increased significantly over the years, a raise which began in 2003. High individual authors, who only published one or two articles, as well as the fact that 199 different journals were the publishers of the 378 articles included in this review, highlight that public procurement is no isolated research field, but instead highly cross-disciplinary.

Forty-eight countries published relevant articles, while eighty-five were studied. While this poses to variation, our analyses revealed that most influential countries, both publishing as - due to a strong home bias of researchers - studied, are mainly the USA and UK, while all other countries have very low relative shares. Yet, the importance of the top publishers decreased greatly, as more countries entered the field over the course of time. Especially European countries have rapidly increased their research activities in the later years. If this trend is continued, they could become more knowledgeable on the field and PP research could mature to a state where phenomena are studied against more versatile backgrounds.

PP research is highly practice oriented, which manifests itself both through employed research strategies, which were mostly case studies and survey researches, as through utilized data sources, of which reviews of non-academic literature, and survey methods were most prominent. Shortcomings of these trends refer, paradoxically, to practical relevance as all those measures have limited reliability and their findings are difficult to generalize. The mostly neglected measures to pool findings (meta-analyses) or apply them to further analyses (literature studies) disable the field from deriving at definite findings, which can be applied by practitioners. What further inhibits practical application is that research was very unspecific with respect to context variables: 56.1% of papers did not specify a government level, 28.6% no product, and 60.6% of articles were grouped into the pooled categories of unspecified industries and sectors from which the public procures. Moreover, 20.6% of papers did not specify their data sources, which poses to dubious scientificity as findings cannot be verified by others.

The field addressed a wide range of twenty-two different topics. However, topics have been addressed by uneven proportions of papers: while the top studied topic of procurement strategies was studied in 61.4% of papers, the second most prominent topic, selection, was merely studied by 17.2% of the articles. Even more so, other topics' relevance decreased over time, while procurement strategies' continued to grow. Further, of the twenty different procurement strategies addressed, research mainly focused on contracting-out and PPP, which combined were studied in 64.2% of strategy papers. This apparent, yet fallacious, versatility was also observed for studied industrial and sectoral contexts: while thirty-two different

industries and sectors were studied, research mainly focused on the construction industry, studied in 20.6% of papers, while the second most often studied sector, the health sector, was only studied by 6.9%.

The review concentrated on discovering prominent research designs and study characteristics. Overall, services were the most often studied product type, although over time their proportionate relevance decreased as particularly works became increasingly popular. The most frequently studied government level is the local one. Over the sixteen years, the municipal level was researched increasingly more often, while the federal level slightly decreased in scientific relevance. Whereas during the years 1997 and 2008 the majority of articles conducted quantitative research, qualitative methods gained more attention in the final four years, resulting in both methodologies being applied almost equally often. This achieved status is a sign of maturity in that no method is under- nor overused. With respect to time dimension it was shown that PP research was focused on cross-sectional research, which inhibits generalizability of findings [8]. While on the global level overall favorites per research variable could be detected, cross-country, as well as cross-topic comparisons showed great variations.

High impact papers did not show noticeably differences to low impact papers with respect to contextual imprecision. A noticeable distinctiveness observed is that while low and medium impact papers focused on the more practice oriented research strategies of case studies and survey research, while mostly neglecting literature studies and meta-studies, the high impact papers exclusively relied on the latter strategies as well as on survey research. This shows that high impact

research utilized existing, scientific knowledge, which is important in developing the PP field to maturity.

The overall conclusion with respect to the maturity level of PP research is that while various different paths have been laid, researchers continued to walk the main roads. To develop the field further, researchers are strongly advised to research the field from more diverse angles. The data provided in this review can provide them with the needed information as to which designs have been under-used until today. Moreover, scientists should synthesize past findings for the sake of deriving at definite conclusions. Only when research findings are tested against various backgrounds and when past findings are validated, can definite findings be developed, which can eventually be consulted by practitioners.

## A. Documentation of search process

Date of search	Database	Search terms	Results
24.03.2013	Scopus	public procurement	655
24.04.2013	Scopus	public purchasing	335
24.04.2013	Scopus	public contracting	238
24.04.2013	Scopus	public buying	60
24.04.2013	Scopus	public commissioning	44
24.04.2013	Scopus	government procurement	360
24.04.2013	Scopus	government purchasing	201
24.04.2013	Scopus	government contracting	183
24.04.2013	Scopus	government buying	25
24.04.2013	Scopus	government commissioning	19
		Sub-total	2,120
24.03.2013	Web of Science	public procurement	362
24.04.2013	Web of Science	public purchasing	197
24.04.2013	Web of Science	public contracting	609
24.04.2013	Web of Science	public buying	91
24.04.2013	Web of Science	public commissioning	339
24.04.2013	Web of Science	government procurement	196
24.04.2013	Web of Science	government purchasing	224
24.04.2013	Web of Science	government contracting	518
24.04.2013	Web of Science	government buying	55
24.04.2013	Web of Science	government commissioning	400
		Sub-total	2,991
		Total	5,111

## B. Classification scheme

<b>General information</b>	Literature review, non-academic	De-/centralization
Title		Public procurement partnerships
Publication year	Focus group	Social procurement
Journal	None specified	Eminent domain vs. purchase of land
Citations Web of Science, Scopus		Mixed service delivery
Author(s)		Offsets
Publishing country/ies	Supplier relations	Promoting small and medium enterprises (SMEs)
Studied country/ies	Make-or-buy	Dual sourcing
<b>Time dimension</b>	<b>Topic</b>	<b>Topic: PP effects</b>
Cross-sectional	Selection	Economy
Longitudinal	Contracting	Human rights, society
	Legal aspect	SMEs
	Procurement strategy	Ethics
	Procurement tool	Procurement efficiency
	- Type of tool (uncoded)	Private contractor
	Effect(s) of procurement	Quality
	Anti-corruption	Government accountability
	Trade discrimination	
	PP status overview	
	Other	
<b>Research strategy</b>	<b>Topic: Procurement strategy</b>	<b>Government level</b>
Survey research	Public Private Partnerships	Governmental
Literature study	Innovation procurement	Municipal
Meta-study	Contracting-out	Local
Single case study	Green public procurement	None specified
Multiple case study	e-procurement	
Quantitative modelling	Early contractor involvement	
<b>Data collection</b>	<b>Data analysis</b>	<b>Industry / sector</b>
Questionnaire	Lean procurement	Construction
Interview	Shares services	ICT
Secondary analysis	Joint procurement	
Experiment	Prime contracting	
Observation	Market-based procurement	
Literature review, academic	Emergency contracting	

Health	Social services	Private sector, not specified
Education	Child welfare	
Defence	Transportation	Waste collection, disposal, recycling
Facility services	Small and Medium enterprises (SMEs)	Other
Professional services		
Manufacturing	Services, not specified	

## C. Analysis

### C.1. Authorships

#### C.1.1. Authorships four time intervals

Authorship	1997 - 2000 Freq.	Percent	2001 - 2004 Freq.	Percent	2005 - 2008 Freq.	Percent	2009 - 2012 Freq.	Percent
Single author	20	47.6%	25	42.4%	38	39.2%	48	26.7%
Two authors	15	35.7%	26	44.1%	35	36.1%	75	41.7%
Three authors	6	14.3%	6	10.2%	15	15.5%	39	21.7%
Four authors	1	2.4%	1	1.7%	7	7.2%	15	8.3%
Five authors					1	1.0%	2	1.1%
Six authors							1	0.6%
Seven authors					1	1.0%		
Total	42	100.0%	59	100.0%	97	100.0%	180	100.0%

### C.1.2. Most active authors

Author	Publications
Potoski, M	7
Brown, TL	7
Warner, ME	6
Chan, APC	6
Hefetz, A	5
Cheung, E.	5
Van Slyke, DM	4
Rolfstam, M	4
Preuss, L	4
Lember, V	4
Kajewski S.	4
Hartley K.	4
Vaidya K.	3
Reeves E.	3
Parikka-Alhola, K	3
Murray J.G.	3
McCue, CP	3
Loader, K	3
Johnston, JM	3
Walker H.	3
Davis, G	3

## C.2. Journals

### C.2.1. Journal publications 1997 - 2012

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Journal of Purchasing and Supply Management	14	3.7%
Public Administration	11	2.9%
Public Administration Review	11	2.9%
Australian Journal of Public Administration	10	2.6%
International Journal of Public Sector Management	10	2.6%
Journal Of Construction Engineering And Management	10	2.6%
International Journal of Industrial Organization	8	2.1%
Journal of Public Procurement	8	2.1%
Public Money & Management	8	2.1%
International Journal of Project Management	6	1.6%
Transportation Research Record Administration & Society	6	1.6%
Journal of Public Administration Research and Theory	5	1.3%
Local Government Studies	5	1.3%
Public Administration and Development	5	1.3%
Review of Industrial Organization	5	1.3%
Building Research & Information	4	1.1%
Construction Management and Economics	4	1.1%
International Review of Administrative Sciences	4	1.1%
Journal of Business Ethics	4	1.1%
The American Review of Public Administration	4	1.1%
Environment and Planning C: Government and Policy	3	0.8%
Government Information Quarterly	3	0.8%
Health policy	3	0.8%
International Public Management Journal	3	0.8%
Journal of Management in Engineering	3	0.8%
Journal of Professional Issues in Engineering Education and Practice	3	0.8%
Natural Resources Forum	3	0.8%

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**Journal publications 1997 - 2012 – continued from previous page**

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Public Management Review	3	0.8%
Public Performance & Management Review	3	0.8%
Research Policy	3	0.8%
The Economic Journal	3	0.8%
Transportation Research Part A	3	0.8%
Administrative Law Review	2	0.5%
American Behavioral Scientist	2	0.5%
Annals of Public and Cooperative Economics	2	0.5%
Business Strategy and the Environment	2	0.5%
Canadian Journal of Civil Engineering	2	0.5%
Canadian Public Administration	2	0.5%
Children and Youth Services Review	2	0.5%
Decision Support Systems	2	0.5%
Defence and Peace Economics	2	0.5%
Ecological Economics	2	0.5%
Economic Affairs	2	0.5%
European Journal of Operational Research	2	0.5%
European Journal of Political Economy	2	0.5%
European Planning Studies	2	0.5%
Expert Systems with Applications	2	0.5%
Governance	2	0.5%
Halduskultuur - Administrative Culture	2	0.5%
Innovation: The European Journal of Social Science Research	2	0.5%
International Journal of Production Economics	2	0.5%
International Journal Of Strategic Property Management	2	0.5%
Journal of Cleaner Production	2	0.5%
Journal of Economic Surveys	2	0.5%
Journal of Public Child Welfare	2	0.5%
Journal of Public Economics	2	0.5%
Lecture Notes in Computer Science	2	0.5%
Public Choice	2	0.5%
Regional Studies	2	0.5%
Supply Chain Management: An International Journal	2	0.5%
The Journal of Industrial Economics	2	0.5%
Clinical Therapeutics	1	0.3%
Common Market Law review	1	0.3%

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**Journal publications 1997 - 2012 – continued from previous page**

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Computer Law and Security Review:	1	0.3%
The International Journal of Technology and Practice		
Contemporary Economic Policy	1	0.3%
Corporate Social Responsibility and Environmental Management	1	0.3%
Decision Analysis	1	0.3%
Disaster Prevention Management	1	0.3%
Economic Development and Cultural Change	1	0.3%
Economic Development Quarterly	1	0.3%
Economics Letters	1	0.3%
Electronic Library	1	0.3%
Energy	1	0.3%
Energy Economics	1	0.3%
Energy Policy	1	0.3%
Engineering, Construction and Architectural Management	1	0.3%
ERA Forum	1	0.3%
European Economic Review	1	0.3%
European Journal of Industrial Engineering	1	0.3%
European Journal Of Information Systems	1	0.3%
European Law Journal	1	0.3%
European Management Journal	1	0.3%
Europhysics Letters	1	0.3%
Fiscal Studies	1	0.3%
Forest Science	1	0.3%
Gazi University Journal of Science	1	0.3%
Health Economics	1	0.3%
Health Information & Libraries Journal	1	0.3%
Healthcare management Forum	1	0.3%
Human resources for health	1	0.3%
ICE Civil Engineering	1	0.3%
Industrial and Corporate Change	1	0.3%
Industrial Marketing Management	1	0.3%
Industrial Relations	1	0.3%
Int. J. of Business Information Systems	1	0.3%
Int. J. of Technology Management	1	0.3%
International Advances in Economic Research	1	0.3%
International Game Theory Review	1	0.3%
International Journal of Constitutional Law	1	0.3%
International Journal Of Health Care Finance & Economics	1	0.3%

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**Journal publications 1997 - 2012 – continued from previous page**

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
International Journal of Operations and Production	1	0.3%
Oxford Review of Economic Policy	1	0.3%
Policy Studies Journal	1	0.3%
Proceedings of the Institution of Civil Engineers: Engineering Sustainability, Proceedings of the Institution of Mechanical Engineers Part F: Journal of Rail and Rapid Transit	1	0.3%
Public Finance Review	1	0.3%
Public Organization Review	1	0.3%
Regional Science And Urban Economics	1	0.3%
Regulation & Governance	1	0.3%
Review Of Central And East European Law	1	0.3%
Review of Economic Design	1	0.3%
Review of European Community & International Environmental Law	1	0.3%
Science and Public Policy	1	0.3%
Social Policy and Administration	1	0.3%
Social Science & Medicine	1	0.3%
Society and Economy	1	0.3%
Structural Survey	1	0.3%
Technovation	1	0.3%
Telecommunications Policy	1	0.3%
The American Economic Review	1	0.3%
The American Journal of Comparative Law	1	0.3%
The China Nonprofit Review	1	0.3%
The Economic and Labour Relations Review	1	0.3%
The Electronic Journal on Information Systems in Developing Countries	1	0.3%
The International Journal of Life Cycle Assessment	1	0.3%
The Journal of Federalism	1	0.3%
The Journal of Law and Economics	1	0.3%
The Quarterly Journal of Economics	1	0.3%
The Review of Economics and Statistics	1	0.3%
The Service Industries Journal	1	0.3%
Transport	1	0.3%
Transport Policy	1	0.3%
Transport Reviews	1	0.3%
Transportation	1	0.3%

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**Journal publications 1997 - 2012 – continued from previous page**

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Transportation Research Part B	1	0.3%
Urban Forestry & Urban Greening	1	0.3%
Urban Studies	1	0.3%
Utilities Policy	1	0.3%
World Economy	1	0.3%
World Trade Review	1	0.3%
International Journal of Productivity and Performance Management	1	0.3%
International Journal of Public Admin- istration	1	0.3%
International Journal of Public Policy	1	0.3%
International Journal of Services Tech- nology and Management	1	0.3%
International Journal of Software Engi- neering and Knowledge Engineering	1	0.3%
International Journal of Value Chain Management	1	0.3%
International Tax and Public Finance	1	0.3%
Jordan Journal of Pharmaceutical Sci- ences	1	0.3%
Journal of Applied Business Research	1	0.3%
Journal of Applied Economics	1	0.3%
Journal of Balkan and Near Eastern Studies	1	0.3%
Journal of Civil Engineering and Man- agement	1	0.3%
Journal Of Cleaner Production	1	0.3%
Journal of Competition Law and Eco- nomics	1	0.3%
Journal of Development Economics	1	0.3%
Journal of Enterprise Information Man- agement	1	0.3%
Journal of Environmental Law	1	0.3%
Journal of Environmental Management	1	0.3%
Journal Of Environmental Planning And Management	1	0.3%
Journal of European Social Policy	1	0.3%
Journal of Infrastructure Systems	1	0.3%
Journal of Integrative Environmental Sciences	1	0.3%
Journal of Oublic Health Management and Practice	1	0.3%
Journal of Planning Education and Re- search	1	0.3%
Journal of Policy Analysis and Manage- ment	1	0.3%

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**Journal publications 1997 - 2012 – continued from previous page**

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Journal Of Policy Modeling	1	0.3%
Journal of Property Investment & Finance	1	0.3%
Journal of Public Economic Theory	1	0.3%
Journal of Public Policy	1	0.3%
Journal of the American Planning Association	1	0.3%
Journal of the Operational Research Society	1	0.3%
Journal of Transport Geography	1	0.3%
Lecture Notes in Artificial Intelligence	1	0.3%
Mediterranean Politics	1	0.3%
Milbank Quarterly	1	0.3%
Military Medicine	1	0.3%
Municipal Engineer	1	0.3%
Nonprofit Management and Leadership	1	0.3%
Open Economies Review	1	0.3%
Oxford Economic Papers	1	0.3%
Abacus	1	0.3%
Accounting Auditing & Accountability Journal	1	0.3%
Acta Politica	1	0.3%
Administration and Policy in Mental Health and Mental Health Services Research	1	0.3%
Administration in Social Work	1	0.3%
American Journal of Preventive Medicine	1	0.3%
Architectural engineering and design management	1	0.3%
Asian Journal of Information Technology	1	0.3%
Atlantic Economic Journal	1	0.3%
Australian Accounting Review	1	0.3%
Australian Economic History Review	1	0.3%
Australian Economic Papers	1	0.3%
B E Journal Of Theoretical Economics	1	0.3%
British Food Journal	1	0.3%
Business & Politics	1	0.3%
Canadian Public Policy	1	0.3%
Civil Engineering Special Issue	1	0.3%
Climate Policy	1	0.3%
<b>Total</b>	<b>378</b>	<b>100.0%</b>

### C.2.2. Journal publications time interval 1

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Australian Journal of Public Administration	4	9.5%
International Journal of Public Sector Management	3	7.1%
Administrative Law Review	2	4.8%
American Behavioral Scientist	2	4.8%
Defence and Peace Economics	2	4.8%
Local Government Studies	2	4.8%
Public Administration	2	4.8%
Public Administration and Development	2	4.8%
Public Money & Management	2	4.8%
Regional Studies	2	4.8%
Transportation Research Record	2	4.8%
Administration and Policy in Mental Health and Mental Health Services Research	1	2.4%
American Journal of Preventive Medicine	1	2.4%
Australian Economic History Review	1	2.4%
Building Research & Information	1	2.4%
Decision Support Systems	1	2.4%
Governance	1	2.4%
Health policy	1	2.4%
International Advances in Economic Research	1	2.4%
International Journal of Industrial Organization	1	2.4%
Journal of Business Ethics	1	2.4%
Journal of Public Economics	1	2.4%
Journal of Purchasing and Supply Management	1	2.4%
Military Medicine	1	2.4%
Oxford Review of Economic Policy	1	2.4%
Proceedings of the Institution of Mechanical Engineers Part F: Journal of Rail and Rapid Transit	1	2.4%
Public Administration Review	1	2.4%
World Economy	1	2.4%
<b>Total</b>	<b>42</b>	<b>100.0%</b>

### C.2.3. Journal publications time interval 2

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Journal Of Construction Engineering And Management	4	6.8%
Building Research & Information	3	5.1%
Public Administration	3	5.1%
Public Administration Review	3	5.1%
Administration & Society	2	3.4%
International Review of Administrative Sciences	2	3.4%
Journal of Public Administration Research and Theory	2	3.4%
Journal of Purchasing and Supply Management	2	3.4%
Public Administration and Development	2	3.4%
Administration in Social Work	1	1.7%
Annals of Public and Cooperative Economics	1	1.7%
Australian Journal of Public Administration	1	1.7%
Canadian Journal of Civil Engineering	1	1.7%
Canadian Public Administration	1	1.7%
Canadian Public Policy	1	1.7%
Children and Youth Services Review	1	1.7%
Construction Management and Economics	1	1.7%
Economic Development and Cultural Change	1	1.7%
Electronic Library	1	1.7%
Environment and Planning C: Government and Policy	1	1.7%
European Economic Review	1	1.7%
Expert Systems with Applications	1	1.7%
Fiscal Studies	1	1.7%
Government Information Quarterly	1	1.7%
Health Economics	1	1.7%
Health policy	1	1.7%
ICE Civil Engineering	1	1.7%
Industrial and Corporate Change	1	1.7%
Industrial Relations	1	1.7%
International Journal of Production Economics	1	1.7%
International Journal of Public Sector Management	1	1.7%
International Tax and Public Finance	1	1.7%

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**Journal publications time interval 2 – continued from previous page**

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Journal of Environmental Law	1	1.7%
Journal of European Social Policy	1	1.7%
Journal of Public Health Management and Practice	1	1.7%
Journal Of Policy Modeling	1	1.7%
Lecture Notes in Computer Science	1	1.7%
Milbank Quarterly	1	1.7%
Natural Resources Forum	1	1.7%
Policy Studies Journal	1	1.7%
Regional Science And Urban Eco- nomics	1	1.7%
Review of Economic Design	1	1.7%
The American Review of Public Ad- ministration	1	1.7%
The Economic Journal	1	1.7%
The Journal of Federalism	1	1.7%
Total	59	100.0%

#### C.2.4. Journal publications time interval 3

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Journal of Purchasing and Supply Management	7	7.2%
International Journal of Project Management	5	5.2%
Public Administration	5	5.2%
Public Administration Review	4	4.1%
Journal Of Construction Engineering And Management	3	3.1%
Journal of Professional Issues in Engineering Education and Practice	3	3.1%
Australian Journal of Public Administration	2	2.1%
International Journal of Industrial Organization	2	2.1%
International Journal of Public Sector Management	2	2.1%
International Public Management Journal	2	2.1%
International Review of Administrative Sciences	2	2.1%
Journal of Business Ethics	2	2.1%
Journal of Cleaner Production	2	2.1%
Journal of Economic Surveys	2	2.1%
Journal of Public Administration Research and Theory	2	2.1%
Public Money & Management	2	2.1%
The American Review of Public Administration	2	2.1%
Administration & Society	1	1.0%
Annals of Public and Cooperative Economics	1	1.0%
Australian Accounting Review	1	1.0%
Business Strategy and the Environment	1	1.0%
Canadian Journal of Civil Engineering	1	1.0%
Canadian Public Administration	1	1.0%
Children and Youth Services Review	1	1.0%
Climate Policy	1	1.0%
Common Market Law review	1	1.0%
Construction Management and Economics	1	1.0%
Corporate Social Responsibility and Environmental Management	1	1.0%

Continued on next page

**Journal publications time interval 3 – continued from previous page**

Journal	Publications	Percent
Energy Policy	1	1.0%
European Journal Of Information Systems	1	1.0%
European Journal of Political Economy	1	1.0%
European Management Journal	1	1.0%
Government Information Quarterly	1	1.0%
Health Information & Libraries Journal	1	1.0%
Healthcare management Forum	1	1.0%
International Game Theory Review	1	1.0%
International Journal of Constitutional Law	1	1.0%
International Journal of Operations and Production	1	1.0%
International Journal of Productivity and Performance Management	1	1.0%
International Journal of Value Chain Management	1	1.0%
Journal of Applied Economics	1	1.0%
Journal Of Cleaner Production	1	1.0%
Journal Of Environmental Planning And Management	1	1.0%
Journal of Management in Engineering	1	1.0%
Journal of Planning Education and Research	1	1.0%
Journal of Policy Analysis and Management	1	1.0%
Journal of Public Economic Theory	1	1.0%
Journal of Public Policy	1	1.0%
Lecture Notes in Artificial Intelligence	1	1.0%
Lecture Notes in Computer Science	1	1.0%
Local Government Studies	1	1.0%
Municipal Engineer	1	1.0%
Natural Resources Forum	1	1.0%
Public Choice	1	1.0%
Public Management Review	1	1.0%
Public Organization Review	1	1.0%
Research Policy	1	1.0%
Social Science & Medicine	1	1.0%
Technovation	1	1.0%
The Economic Journal	1	1.0%
The International Journal of Life Cycle Assessment	1	1.0%
The Journal of Industrial Economics	1	1.0%
Transport Policy	1	1.0%
Transportation Research Part A	1	1.0%
Transportation Research Record	1	1.0%

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**Journal publications time interval 3 – continued from previous page**

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Total	97	100.0%

### C.2.5. Journal publications time interval 4

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Journal of Public Procurement	8	4.4%
International Journal of Industrial Organization	5	2.8%
Review of Industrial Organization	5	2.8%
International Journal of Public Sector Management	4	2.2%
Journal of Purchasing and Supply Management	4	2.2%
Public Money & Management	4	2.2%
Australian Journal of Public Administration	3	1.7%
Journal Of Construction Engineering And Management	3	1.7%
Public Administration Review	3	1.7%
Public Performance & Management Review	3	1.7%
Transportation Research Record	3	1.7%
Administration & Society	2	1.1%
Construction Management and Economics	2	1.1%
Ecological Economics	2	1.1%
Economic Affairs	2	1.1%
Environment and Planning C: Government and Policy	2	1.1%
European Journal of Operational Research	2	1.1%
European Planning Studies	2	1.1%
Halduskultuur - Administrative Culture	2	1.1%
Innovation: The European Journal of Social Science Research	2	1.1%
International Journal Of Strategic Property Management	2	1.1%
Journal of Management in Engineering	2	1.1%
Journal of Public Child Welfare	2	1.1%
Local Government Studies	2	1.1%
Public Management Review	2	1.1%
Research Policy	2	1.1%
Supply Chain Management: An International Journal	2	1.1%
Transportation Research Part A	2	1.1%
Abacus	1	0.6%
Accounting Auditing & Accountability Journal	1	0.6%

Continued on next page

**Journal publications time interval 4 – continued from previous page**

Journal	Publications	Percent
Acta Politica	1	0.6%
Architectural engineering and design management	1	0.6%
Asian Journal of Information Technology	1	0.6%
Atlantic Economic Journal	1	0.6%
Australian Economic Papers	1	0.6%
B E Journal Of Theoretical Economics	1	0.6%
British Food Journal	1	0.6%
Business & Politics	1	0.6%
Business Strategy and the Environment	1	0.6%
Civil Engineering Special Issue	1	0.6%
Clinical Therapeutics	1	0.6%
Computer Law and Security Review: The International Journal of Technology and Practice	1	0.6%
Contemporary Economic Policy	1	0.6%
Decision Analysis	1	0.6%
Decision Support Systems	1	0.6%
Disaster Prevention Management	1	0.6%
Economic Development Quarterly	1	0.6%
Economics Letters	1	0.6%
Energy	1	0.6%
Energy Economics	1	0.6%
Engineering, Construction and Architectural Management	1	0.6%
ERA Forum	1	0.6%
European Journal of Industrial Engineering	1	0.6%
European Journal of Political Economy	1	0.6%
European Law Journal	1	0.6%
Europhysics Letters	1	0.6%
Expert Systems with Applications	1	0.6%
Forest Science	1	0.6%
Gazi University Journal of Science	1	0.6%
Governance	1	0.6%
Government Information Quarterly	1	0.6%
Health policy	1	0.6%
Human resources for health	1	0.6%
Industrial Marketing Management	1	0.6%
Int. J. of Business Information Systems	1	0.6%
Int. J. of Technology Management	1	0.6%
International Journal Of Health Care	1	0.6%
Finance & Economics		
International Journal of Production Economics	1	0.6%

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**Journal publications time interval 4 – continued from previous page**

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
International Journal of Project Management	1	0.6%
International Journal of Public Administration	1	0.6%
International Journal of Public Policy	1	0.6%
International Journal of Services Technology and Management	1	0.6%
International Journal of Software Engineering and Knowledge Engineering	1	0.6%
International Public Management Journal	1	0.6%
Jordan Journal of Pharmaceutical Sciences	1	0.6%
Journal of Applied Business Research	1	0.6%
Journal of Balkan and Near Eastern Studies	1	0.6%
Journal of Business Ethics	1	0.6%
Journal of Civil Engineering and Management	1	0.6%
Journal of Competition Law and Economics	1	0.6%
Journal of Development Economics	1	0.6%
Journal of Enterprise Information Management	1	0.6%
Journal of Environmental Management	1	0.6%
Journal of Infrastructure Systems	1	0.6%
Journal of Integrative Environmental Sciences	1	0.6%
Journal of Property Investment & Finance	1	0.6%
Journal of Public Administration Research and Theory	1	0.6%
Journal of Public Economics	1	0.6%
Journal of the American Planning Association	1	0.6%
Journal of the Operational Research Society	1	0.6%
Journal of Transport Geography	1	0.6%
Mediterranean Politics	1	0.6%
Natural Resources Forum	1	0.6%
Nonprofit Management and Leadership	1	0.6%
Open Economies Review	1	0.6%
Oxford Economic Papers	1	0.6%
Proceedings of the Institution of Civil Engineers: Engineering Sustainability	1	0.6%

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**Journal publications time interval 4 – continued from previous page**

<b>Journal</b>	<b>Publications</b>	<b>Percent</b>
Public Administration	1	0.6%
Public Administration and Development	1	0.6%
Public Choice	1	0.6%
Public Finance Review	1	0.6%
Regulation & Governance	1	0.6%
Review Of Central And East European Law	1	0.6%
Review of European Community & International Environmental Law	1	0.6%
Science and Public Policy	1	0.6%
Social Policy and Administration	1	0.6%
Society and Economy	1	0.6%
Structural Survey	1	0.6%
Telecommunications Policy	1	0.6%
The American Economic Review	1	0.6%
The American Journal of Comparative Law	1	0.6%
The American Review of Public Administration	1	0.6%
The China Nonprofit Review	1	0.6%
The Economic and Labour Relations Review	1	0.6%
The Economic Journal	1	0.6%
The Electronic Journal on Information Systems in Developing Countries	1	0.6%
The Journal of Industrial Economics	1	0.6%
The Journal of Law and Economics	1	0.6%
The Quarterly Journal of Economics	1	0.6%
The Review of Economics and Statistics	1	0.6%
The Service Industries Journal	1	0.6%
Transport	1	0.6%
Transport Reviews	1	0.6%
Transportation	1	0.6%
Transportation Research Part B	1	0.6%
Urban Forestry & Urban Greening	1	0.6%
Urban Studies	1	0.6%
Utilities Policy	1	0.6%
World Trade Review	1	0.6%
<b>Total</b>	<b>180</b>	<b>100.0%</b>

### C.3. Publishing countries

#### C.3.1. Publishing countries 1997 - 2012

Publishing country	Frequency	Percent
USA	179	47.4%
UK	135	35.7%
Australia	53	14.0%
Spain	34	9.0%
Germany	24	6.3%
Italy	24	6.3%
Hong Kong	23	6.1%
Netherlands	23	6.1%
France	21	5.6%
Sweden	21	5.6%
Canada	20	5.3%
Norway	18	4.8%
China	17	4.5%
Finland	15	4.0%
Denmark	14	3.7%
Taiwan	14	3.7%
Unknown	11	2.9%
Estonia	9	2.4%
Belgium	7	1.9%
Brazil	7	1.9%
India	7	1.9%
Greece	6	1.6%
Hungary	6	1.6%
Israel	6	1.6%
Jordan	6	1.6%
Turkey	6	1.6%
Mexico	5	1.3%
Portugal	5	1.3%
Chile	4	1.1%
Ireland	4	1.1%
Japan	4	1.1%
Czech Republic	3	.8%
New Zealand	3	.8%
Slovenia	3	.8%
Switzerland	3	.8%
Thailand	3	.8%
Austria	2	.5%
Korea	2	.5%
Singapore	2	.5%
Slovakia	2	.5%
Bosnia-Herzegovina	1	.3%
Bulgaria	1	.3%
Colombia	1	.3%
Croatia	1	.3%
Ethiopia	1	.3%
Luxembourg	1	.3%

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**Publishing countries 1997 - 2012 – continued from previous page**

<b>Publishing country</b>	<b>Frequency</b>	<b>Percent</b>
Malaysia	1	.3%
Pakistan	1	.3%
South Africa	1	.3%
Total	760	201.1%

**C.3.2. Publishing countries time interval 1**

<b>Publishing country</b>	<b>Frequency</b>	<b>Percent</b>
UK	29	69.0%
USA	17	40.5%
Australia	9	21.4%
Hungary	4	9.5%
Italy	3	7.1%
Unknown	3	7.1%
Canada	2	4.8%
France	2	4.8%
Greece	1	2.4%
Korea	1	2.4%
Norway	1	2.4%
Total	72	171.4%

### C.3.3. Publishing countries time interval 2

Publishing country	Frequency	Percent
USA	34	57.6%
UK	16	27.1%
Canada	10	16.9%
Taiwan	8	13.6%
Hong Kong	5	8.5%
Australia	3	5.1%
France	3	5.1%
Greece	3	5.1%
Israel	3	5.1%
New Zealand	3	5.1%
Austria	2	3.4%
Chile	2	3.4%
Spain	2	3.4%
Switzerland	2	3.4%
Unknown	1	1.7%
Korea	1	1.7%
Belgium	1	1.7%
Estonia	1	1.7%
Germany	1	1.7%
Ireland	1	1.7%
Netherlands	1	1.7%
Sweden	1	1.7%
Total	104	176.3%

#### C.3.4. Publishing countries time interval 3

Publishing country	Frequency	Percent
USA	51	52.6%
UK	46	47.4%
Germany	12	12.4%
Australia	10	10.3%
Norway	10	10.3%
Spain	9	9.3%
Sweden	6	6.2%
Canada	5	5.2%
France	5	5.2%
Netherlands	5	5.2%
Hong Kong	4	4.1%
Finland	4	4.1%
Taiwan	3	3.1%
Ireland	3	3.1%
Thailand	3	3.1%
Belgium	2	2.1%
Hungary	2	2.1%
Italy	2	2.1%
China	2	2.1%
India	2	2.1%
Slovakia	2	2.1%
Israel	1	1.0%
Switzerland	1	1.0%
Czech Republic	1	1.0%
Singapore	1	1.0%
South Africa	1	1.0%
Total	193	199.0%

### C.3.5. Publishing countries time interval 4

Publishing country	Frequency	Percent
USA	77	42.8%
UK	44	24.4%
Australia	31	17.2%
Spain	23	12.8%
Italy	19	10.6%
Netherlands	17	9.4%
China	15	8.3%
Sweden	14	7.8%
Hong Kong	14	7.8%
Denmark	14	7.8%
Germany	11	6.1%
France	11	6.1%
Finland	11	6.1%
Estonia	8	4.4%
Norway	7	3.9%
Unknown	7	3.9%
Brazil	7	3.9%
Jordan	6	3.3%
Turkey	6	3.3%
India	5	2.8%
Mexico	5	2.8%
Portugal	5	2.8%
Belgium	4	2.2%
Japan	4	2.2%
Canada	3	1.7%
Taiwan	3	1.7%
Slovenia	3	1.7%
Israel	2	1.1%
Czech Republic	2	1.1%
Greece	2	1.1%
Chile	2	1.1%
Singapore	1	0.6%
Bosnia-Herzegovina	1	0.6%
Bulgaria	1	0.6%
Colombia	1	0.6%
Croatia	1	0.6%
Ethiopia	1	0.6%
Luxembourg	1	0.6%
Malaysia	1	0.6%
Pakistan	1	0.6%
Total	391	217.2%

## C.4. Government levels

### C.4.1. Government levels four time intervals

Government level	1997 - 2000 Freq.	Percent	2001 - 2004 Freq.	Percent	2005 - 2008 Freq.	Percent	2009 - 2012 Freq.	Percent
Governmental	8	19.0%	7	11.9%	8	8.2%	26	14.4%
Municipal	3	7.1%	8	13.6%	9	9.3%	34	18.9%
Local	11	26.2%	12	20.3%	23	23.7%	49	27.2%
No government level	23	54.8%	35	59.3%	59	60.8%	95	52.8%
Total	45	107.1%	62	105.1%	99	102.1%	204	113.3%

#### C.4.2. Government levels per top 16 publishing countries

Publishing country	Govern- mental	Municipal	Local	No gov- ernment level
Australia (53)	5.7%	13.2%	18.9%	73.6%
Canada (20)	25.0%		5.0%	70.0%
China (17)	23.5%		35.3%	64.7%
Denmark (14)	7.1%	50.0%	21.4%	28.6%
Finland (15)		20.0%		80.0%
France (21)	9.5%		23.8%	66.7%
Germany (24)	20.8%	20.8%	16.7%	50.0%
Hong Kong (23)	8.7%		8.7%	82.6%
Italy (24)	8.3%	37.5%	12.5%	50.0%
Netherlands (23)	8.7%	26.1%	4.3%	60.9%
Norway (18)	5.6%	27.8%		66.7%
Spain (34)		5.9%	11.8%	82.4%
Sweden (21)	9.5%	23.8%	28.6%	47.6%
Taiwan (14)	21.4%	21.4%	35.7%	50.0%
UK (135)	11.9%	6.7%	34.8%	52.6%
USA (179)	19.0%	17.9%	29.6%	46.4%

#### C.4.3. Government levels per paper impact

Citations	Govern- mental	Municipal	Local	No gov- ernment level
0 - 10 (282)	13.1%	14.5%	26.2%	56.0%
10.5 - 20 (49)	10.2%	8.2%	22.4%	63.3%
20.5 - 30 (19)	15.8%	10.5%	15.8%	63.2%
30.5 - 40 (8)	12.5%	12.5%	37.5%	37.5%
40.5 - 50 (4)	50.0%	25.0%	25.0%	
50.5 - 60 (6)	16.7%	16.7%	33.3%	50.0%
60.5 - 70 (2)		50.0%		50.0%
70.5 - 80 (2)				100.0%
90.5 - 100 (2)		100.0%		
100.5 - 110 (3)		33.3%	33.3%	33.3%
135 (1)				100.0%

## C.5. Product types

### C.5.1. Product types four time intervals

Product type	1997 - 2000		2001 - 2004		2005 - 2008		2009 - 2012	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Goods	6	14.3%	7	11.9%	21	21.6%	34	18.9%
Services	26	61.9%	34	57.6%	44	45.4%	76	42.2%
Works	4	9.5%	10	16.9%	22	22.7%	45	25.0%
Land							1	0.6%
No specified product	9	21.4%	14	23.7%	28	28.9%	57	31.7%
Total	45	107.1%	65	110.2%	115	118.6%	213	118.3%

### C.5.2. Product types per top 16 publishing countries

Publishing country	Goods	Services	Works	Land	no product specified
Australia (53)	3.8%	49.1%	24.5%		34.0%
Canada (20)	5.0%	80.0%	10.0%		10.0%
China (17)	11.8%	23.5%	23.5%		52.9%
Denmark (14)	14.3%	42.9%	14.3%		35.7%
Finland (15)	53.3%	46.7%	26.7%		33.3%
France (21)	47.6%	42.9%			33.3%
Germany (24)	50.0%	33.3%	8.3%		29.2%
Hong Kong (23)		52.2%	69.6%		17.4%
Italy (24)	54.2%	41.7%	41.7%		12.5%
Netherlands (23)	4.3%	21.7%	26.1%		52.2%
Norway (18)	33.3%	16.7%	22.2%		27.8%
Spain (34)	11.8%	11.8%	61.8%		14.7%
Sweden (21)	28.6%	66.7%	14.3%		9.5%
Taiwan (14)	7.1%	21.4%	50.0%		28.6%
UK (135)	20.7%	43.7%	17.0%		34.8%
USA (179)	12.8%	57.5%	16.8%	.6%	22.3%

### C.5.3. Product types per paper impact

Citations	Goods	Services	Works	Land	no product specified
0 - 10 (282)	20.6%	46.1%	22.7%	.4%	28.4%
10.5 - 20 (49)	14.3%	53.1%	16.3%		24.5%
20.5 - 30 (19)	5.3%	26.3%	21.1%		52.6%
30.5 - 40 (8)		62.5%	25.0%		25.0%
40.5 - 50 (4)	25.0%	75.0%	25.0%		25.0%
50.5 - 60 (6)		33.3%	33.3%		33.3%
60.5 - 70 (2)		50.0%			50.0%
70.5 - 80 (2)	50.0%	100.0%			
90.5 - 100 (2)		100.0%			
100.5 - 110 (3)		100.0%			
135 (1)		100.0%			

## C.6. Industries and sectors

### C.6.1. Industries and sectors 1997 - 2012

Industry / sector	Frequency	Percent
Private sector, not specified	144	38.1%
Services, not specified	85	22.5%
Construction	78	20.6%
Health sector	26	6.9%
Social services	18	4.8%
ICT	13	3.4%
Defense sector	9	2.4%
Manufacturing	8	2.1%
Professional services	8	2.1%
Transportation	8	2.1%
Waste collection, disposal, recycling services	8	2.1%
Facility services	6	1.6%
SMEs	6	1.6%
Child welfare services	5	1.3%
Education	4	1.1%
Other	19	5.0%
Total	445	117.7%

## C.6.2 Industries and sectors four time intervals

Industry / sector	1997 - 2000		2001 - 2004		2005 - 2008		2009 - 2012	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Private sector - not specified	12	28.6%	18	30.5%	36	37.5%	78	43.6%
Services - not specified	11	26.2%	17	28.8%	23	24.0%	34	19.0%
Construction	4	9.5%	10	16.9%	23	24.0%	41	22.9%
Health sector	4	9.5%	6	10.2%	5	5.2%	11	6.1%
Social	4	9.5%	3	5.1%	4	4.2%	7	3.9%
ICT	1	2.4%	2	3.4%	6	6.3%	4	2.2%
Defense sector	2	4.8%	1	1.7%	4	4.2%	2	1.1%
Professional services	1	2.4%			4	4.2%	3	1.7%
Manufacturing not specified	2	4.8%			1	1.0%	5	2.8%
Transportation	1	2.4%						
Waste collection, disposal, recycling			3	5.1%	2	2.1%	7	3.9%
Facility services	1	2.4%					3	1.7%
SMEs			1	1.7%	2	2.1%	3	1.7%
Child Welfare			1	1.7%	2	2.1%	2	1.1%
Education			1	1.7%	3	3.1%		
Other			1	2.4%	2	2.1%	16	8.9%
Total	44	104.8%	63	106.8%	119	124.0%	219	122.3%

Note: Two articles studied the public procurement function in general, without referring to any procurements. They were not categorized into any industry or sector and therefore for this analysis there were 96 relevant papers in interval 3 and 179 in interval 4.

### C.6.3. Industries and sectors per top 16 publishing countries

Publishing country	Construction	ICT	Health sector	Education	Defense sector	Facility services	Professional services	Services - not specified	Private sector - not specified	Manufacturing	Other	Social	Child Welfare	Transportation	SMEs	Waste collection, ...
Australia (53)	24.5%		5.7%			7.5%	1.9%	26.4%	34.0%	1.9%	7.5%	3.8%			1.9%	
Canada (20)	25.0%		10.0%					45.0%	20.0%							
China (17)	23.5%							17.6%	64.7%			5.9%				
Denmark (14)	15.4%	7.7%	15.4%					23.1%	30.8%	23.1%						
Finland (15)	13.3%							20.0%	66.7%	6.7%				13.3%	13.3%	
France (21)		4.8%				9.5%		33.3%	61.9%	4.8%					4.8%	
Germany (24)	8.3%	25.0%		8.3%				16.7%	70.8%							
Hong Kong (23)	69.6%	4.3%	4.3%	4.3%	4.3%	4.3%		47.8%	21.7%			4.3%				
Italy (24)	12.5%							33.3%	66.7%	16.7%	4.2%					
Netherlands (23)	27.3%							4.5%	54.5%		13.6%				4.5%	
Norway (18)	22.2%	16.7%						16.7%	44.4%							
Spain (34)	61.8%		5.9%						26.5%		5.9%				8.8%	
Sweden (21)	23.8%	9.5%			9.5%	9.5%	9.5%	19.0%	19.0%	4.8%		9.5%		28.6%	4.8%	
Taiwan (14)	50.0%							14.3%	28.6%		7.1%					
UK (135)	15.6%		6.7%	1.5%	5.2%	3.0%	2.2%	26.7%	38.5%	8.1%	.7%	.7%			3.7%	
USA (179)	15.1%	1.7%	11.7%		1.1%	2.2%	2.2%	22.9%	31.3%		6.7%	8.4%	6.1%	5.0%		6.1%

#### C.6.4. Industries and sectors per paper impact

Citations	Construction	ICT	Health sector	Education	Defense sector	Facility services	Professional services	Services, not specified	Private sector, not specified	Manufacturing	Other	Social	Child Welfare	Transportation	SMEs	Waste collection, ...
0 - 10 (282)	21.4%	4.3%	6.1%	1.1%	2.1%	1.4%	1.1%	21.4%	38.6%	2.1%	6.1%	4.6%	1.4%	2.5%	1.8%	.7%
10.5 - 20 (49)	14.3%		10.2%			2.0%	4.1%	22.4%	40.8%	2.0%	2.0%	4.1%	2.0%			4.1%
20.5 - 30 (19)	26.3%	5.3%	10.5%	5.3%	5.3%	5.3%	5.3%	5.3%	52.6%	5.3%		5.3%			5.3%	5.3%
30.5 - 40 (8)	37.5%		25.0%				12.5%	25.0%	25.0%		12.5%				12.5%	37.5%
40.5 - 50 (4)	25.0%				25.0%		25.0%	50.0%	25.0%							
50.5 - 60 (6)	33.3%				16.7%			33.3%	16.7%							
60.5 - 70 (2)								50.0%	50.0%							
70.5 - 80 (2)								100.0%	50.0%							
90.5 - 100 (2)								50.0%				50.0%				
100.5 - 110 (3)								66.7%				33.3%				
135 (1)								100.0%								

## C.7. Studied countries

### C.7.1. Studied countries 1997 - 2012

Studied country	Frequency	Percent
USA	85	22.5%
UK	77	20.4%
Australia	28	7.4%
Sweden	17	4.5%
EU	15	4.0%
Canada	12	3.2%
Italy	11	2.9%
Hong Kong	10	2.6%
Spain	10	2.6%
Finland	9	2.4%
Netherlands	9	2.4%
China	7	1.9%
France	7	1.9%
Japan	7	1.9%
Denmark	6	1.6%
Norway	6	1.6%
Taiwan	6	1.6%
Germany	5	1.3%
India	5	1.3%
Ireland	5	1.3%
New Zealand	5	1.3%
Austria	4	1.1%
Estonia	4	1.1%
Malaysia	4	1.1%
Portugal	4	1.1%
South Africa	4	1.1%
Brazil	3	0.8%
Greece	3	0.8%
Hungary	3	0.8%
Mexico	3	0.8%
Singapore	3	0.8%
Thailand	3	0.8%
Turkey	3	0.8%
Argentina	3	0.8%
Belgium	2	0.5%
Bulgaria	2	0.5%
Chile	2	0.5%
Jordan	2	0.5%
Korea	2	0.5%
Pakistan	2	0.5%
Slovakia	2	0.5%
Slovenia	2	0.5%
Switzerland	2	0.5%
Croatia	2	0.5%
Ghana	2	0.5%
Mozambique	2	0.5%
Nepal	2	0.5%
Nordic Baltic Sea Region	2	0.5%
Poland	2	0.5%
Worldwide	2	0.5%

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**Studied countries 1997 - 2012 – continued from previous page**

Studied country	Frequency	Percent
Columbia	2	0.5%
Uganda	2	0.5%
Peru	2	0.5%
Phillipines	2	0.5%
Bosnia-Herzegovina	1	0.3%
Czech Republic	1	0.3%
Ethiopia	1	0.3%
Antigua	1	0.3%
Asia	1	0.3%
Indonesia	1	0.3%
Kenya	1	0.3%
Ukraine	1	0.3%
Former Yugoslav Republic of Macedonia	1	0.3%
Nicaragua	1	0.3%
Paraguay	1	0.3%
Serbia	1	0.3%
Zambia	1	0.3%
Uruguay	1	0.3%
Western Europe	1	0.3%
Albania	1	0.3%
Rwanda	1	0.3%
Eastern Europe	1	0.3%
Malawi	1	0.3%
Scandinavia	1	0.3%
Other unspecified regions	1	0.3%
Jamaica	1	0.3%
Honduras	1	0.3%
Haiti	1	0.3%
Grenada	1	0.3%
Guatemala	1	0.3%
El Salvador	1	0.3%
Ecuador	1	0.3%
Dominican Republic	1	0.3%
Costa Rica	1	0.3%
Bolivia	1	0.3%
Total	457	120.9%

### C.7.2. Studied countries time interval 1

Studied country	Frequency	Percent
UK	12	28.6%
USA	10	23.8%
Australia	4	9.5%
EU	3	7.1%
New Zealand	2	4.8%
Mozambique	2	4.8%
Hungary	1	2.4%
Italy	1	2.4%
Ghana	1	2.4%
Uganda	1	2.4%
Total	37	88.1%

### C.7.3. Studied countries time interval 2

<b>Studied country</b>	<b>Frequency</b>	<b>Percent</b>
USA	19	32.2%
UK	10	16.9%
Australia	4	6.8%
Canada	3	5.1%
Taiwan	3	5.1%
EU	3	5.1%
China	2	3.4%
Austria	1	1.7%
Chile	1	1.7%
Estonia	1	1.7%
Finland	1	1.7%
Greece	1	1.7%
Hong Kong	1	1.7%
India	1	1.7%
Ireland	1	1.7%
Japan	1	1.7%
Korea	1	1.7%
Malaysia	1	1.7%
New Zealand	1	1.7%
Singapore	1	1.7%
South Africa	1	1.7%
Spain	1	1.7%
Sweden	1	1.7%
Thailand	1	1.7%
Asia	1	1.7%
Ghana	1	1.7%
Ukraine	1	1.7%
Worldwide	1	1.7%
Peru	1	1.7%
Phillipines	1	1.7%
Total	67	113.6%

#### C.7.4. Studied countries time interval 3

Studied country	Frequency	Percent
UK	23	23.7%
USA	21	21.6%
Australia	7	7.2%
Canada	6	6.2%
Hong Kong	4	4.1%
Sweden	4	4.1%
EU	4	4.1%
France	3	3.1%
Ireland	3	3.1%
Italy	3	3.1%
South Africa	3	3.1%
Finland	2	2.1%
Germany	2	2.1%
Hungary	2	2.1%
India	2	2.1%
Japan	2	2.1%
Malaysia	2	2.1%
Netherlands	2	2.1%
Norway	2	2.1%
Singapore	2	2.1%
Slovakia	2	2.1%
Spain	2	2.1%
Thailand	2	2.1%
Argentina	2	2.1%
Austria	1	1.0%
Belgium	1	1.0%
China	1	1.0%
Czech Republic	1	1.0%
Estonia	1	1.0%
Greece	1	1.0%
Korea	1	1.0%
Mexico	1	1.0%
Switzerland	1	1.0%
Taiwan	1	1.0%
Indonesia	1	1.0%
Poland	1	1.0%
Columbia	1	1.0%
Peru	1	1.0%
Phillipines	1	1.0%
Total	122	125.8%

### C.7.5. Studied countries time interval 4

Studied country	Frequency	Percent
USA	35	19.4%
UK	32	17.8%
Australia	13	7.2%
Sweden	12	6.7%
Italy	7	3.9%
Netherlands	7	3.9%
Spain	7	3.9%
Denmark	6	3.3%
Finland	6	3.3%
Hong Kong	5	2.8%
EU	5	2.8%
China	4	2.2%
France	4	2.2%
Japan	4	2.2%
Norway	4	2.2%
Portugal	4	2.2%
Brazil	3	1.7%
Canada	3	1.7%
Germany	3	1.7%
Turkey	3	1.7%
Austria	2	1.1%
Bulgaria	2	1.1%
Estonia	2	1.1%
India	2	1.1%
Jordan	2	1.1%
Mexico	2	1.1%
New Zealand	2	1.1%
Pakistan	2	1.1%
Slovenia	2	1.1%
Taiwan	2	1.1%
Croatia	2	1.1%
Nepal	2	1.1%
Nordic Baltic Sea Region	2	1.1%
Belgium	1	0.6%
Bosnia-Herzegovina	1	0.6%
Chile	1	0.6%
Ethiopia	1	0.6%
Greece	1	0.6%
Ireland	1	0.6%
Malaysia	1	0.6%
Switzerland	1	0.6%
Antigua	1	0.6%
Argentina	1	0.6%
Kenya	1	0.6%
Poland	1	0.6%
Worldwide	1	0.6%
Columbia	1	0.6%
Former Yugoslav Republic of Macedonia	1	0.6%
Nicaragua	1	0.6%
Uganda	1	0.6%
Paraguay	1	0.6%
Serbia	1	0.6%

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**Studied countries time interval 4 – continued from previous page**

Studied country	Frequency	Percent
Zambia	1	0.6%
Uruguay	1	0.6%
Western Europe	1	0.6%
Albania	1	0.6%
Rwanda	1	0.6%
Eastern Europe	1	0.6%
Malawi	1	0.6%
Scandinavia	1	0.6%
Other unspecified regions	1	0.6%
Jamaica	1	0.6%
Honduras	1	0.6%
Haiti	1	0.6%
Grenada	1	0.6%
Guatemala	1	0.6%
El Salvador	1	0.6%
Ecuador	1	0.6%
Dominican Republic	1	0.6%
Costa Rica	1	0.6%
Bolivia	1	0.6%
Total	231	128.3%

### C.7.6. Publishing versus studied countries

Publishing country	Australia	Austria	Belgium	Bosnia-Herzegovina	Brazil	Bulgaria	Canada	Chile	China	Studied country
Australia	76.1%									
Austria		100.0%								
Belgium			100.0%							
Bosnia-Herzegovina				-						
Brazil					100.0%					
Bulgaria						100.0%				
Canada							88.9%			
Chile								100.0%		
China									90.0%	

Publishing country	Studied country							
	Colombia	Croatia	Czech Republic	Denmark	Estonia	Ethiopia	Finland	France
Colombia	-							
Croatia		100.0%						
Czech Republic			50.0%					
Denmark				39.1%				
Estonia					44.4%			
Ethiopia						100.0%		
Finland							86.7%	
France								64.3%
Germany								80.0%

Publishing country	Studied country					
	Greece	Hong Kong	Hungary	India	Ireland	Israel
Greece	60.0%					
Hong Kong		76.5%				
Hungary			100.0%			
India				100.0%		
Ireland					100.0%	
Israel		-				
Italy				81.0%		
Japan					75.0%	
Jordan						100.0%
Korea						50.0%

Publishing country	Studied country							
	Luxembourg	Malaysia	Mexico	Netherlands	New Zealand	Norway	Pakistan	Portugal
Luxembourg	-							
Malaysia		100.0%						
Mexico			40.0%					
Netherlands				77.3%				
New Zealand					100.0%			
Norway						100.0%		
Pakistan							100.0%	
Portugal								100.0%
Slovakia								100.0%

Publishing country	Studied country					
	Slovenia	South Africa	Spain	Sweden	Switzerland	Taiwan Thailand Turkey UK USA
Slovenia	100.0%					
South Africa		100.0%				
Spain			71.0%			
Sweden				90.5%		
Switzerland					50.0%	
Taiwan						100.0%
Thailand						33.3%
Turkey						100.0%
UK						77.5%
USA						87.7%

## C.8. Methodologies

### C.8.1. Methodologies four time intervals

Methodology	1997 - 2000		2001 - 2004		2005 - 2008		2009 - 2012	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Qualitative	32	76.2%	41	69.5%	73	75.3%	88	48.9%
Quantitative	10	23.8%	19	32.2%	26	26.8%	99	55.0%
Total	42	100.0%	60	101.7%	99	102.1%	187	103.9%

### C.8.2. Methodologies per top 16 publishing country

Publishing country	Qualitative	Quantitative
Australia (53)	75.5%	24.5%
Canada (20)	75.0%	25.0%
China (17)	35.3%	94.1%
Denmark (14)	57.1%	42.9%
Finland (15)	53.3%	46.7%
France (21)	47.6%	52.4%
Germany (24)	45.8%	54.2%
Hong Kong (23)	56.5%	43.5%
Italy (24)	50.0%	50.0%
Netherlands (23)	87.0%	17.4%
Norway (18)	55.6%	61.1%
Spain (34)	38.2%	61.8%
Sweden (21)	76.2%	23.8%
Taiwan (14)	21.4%	78.6%
UK (135)	71.1%	31.1%
USA (179)	50.8%	52.5%

### C.8.3. Methodologies per paper impact

Citation category	Qualitative	Quantitative
0 - 10 (282)	59.2%	42.9%
10.5 - 20 (49)	71.4%	32.7%
20.5 - 30 (19)	78.9%	31.6%
30.5 - 40 (8)	50.0%	50.0%
40.5 - 50 (4)	50.0%	50.0%
50.5 - 60 (6)	83.3%	16.7%
60.5 - 70 (2)	50.0%	50.0%
70.5 - 80 (2)	100.0%	
90.5 - 100 (2)	50.0%	50.0%
100.5 - 110 (3)	66.7%	33.3%
135 (1)		100.0%

## C.9. Time dimensions

### C.9.1. Time dimensions four time intervals

Time dimension	1997 - 2000		2001 - 2004		2005 - 2008		2009 - 2012	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Cross-sectional	28	66.7%	45	76.3%	85	87.6%	143	79.4%
Longitudinal	14	33.3%	14	23.7%	12	12.4%	37	20.6%
Total	42	100.0%	59	100.0%	97	100.0%	180	100.0%

### C.9.2. Time dimensions per top 16 publishing country

Publishing country	Cross-sectional	Longitudinal
Australia (53)	81.1%	18.9%
Canada (20)	100.0%	
China (17)	94.1%	5.9%
Denmark (14)	78.6%	21.4%
Finland (15)	53.3%	46.7%
France (21)	95.2%	4.8%
Germany (24)	100.0%	
Hong Kong (23)	100.0%	
Italy (24)	95.8%	4.2%
Netherlands (23)	69.6%	30.4%
Norway (18)	100.0%	
Spain (34)	88.2%	11.8%
Sweden (21)	81.0%	19.0%
Taiwan (14)	50.0%	50.0%
UK (135)	80.7%	19.3%
USA (179)	77.1%	22.9%

### C.9.3. Time dimensions per paper impact

Citation category	Cross-sectional	Longitudinal study
0 - 10 (282)	80.1%	19.9%
10.5 - 20 (49)	77.6%	22.4%
20.5 - 30 (19)	94.7%	5.3%
30.5 - 40 (8)	62.5%	37.5%
40.5 - 50 (4)	50.0%	50.0%
50.5 - 60 (6)	100.0%	
60.5 - 70 (2)		100.0%
70.5 - 80 (2)	100.0%	
90.5 - 100 (2)	100.0%	
100.5 - 110 (3)	33.3%	66.7%
135 (1)	100.0%	

## C.10. Data collection methods

### C.10.1. Data collection methods 1997 - 2012

Data collection method	Frequency	Percent
Literature review - non-academic	148	39.2%
Interview	113	29.9%
none specified	77	20.4%
Questionnaire	71	18.8%
Secondary analysis	57	15.1%
Literature review	53	14.0%
Observation	18	4.8%
Focus group	8	2.1%
Experiment	6	1.6%
Total	551	145.8%

### C.10.2. Data collection methods four time intervals

Data collection method	1997 - 2000		2001 - 2004		2005 - 2008		2009 - 2012	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Questionnaire	3	7.1%	10	16.9%	16	16.5%	42	23.3%
Interview	8	19.0%	17	28.8%	33	34.0%	55	30.6%
Secondary analysis	6	14.3%	10	16.9%	8	8.2%	33	18.3%
Experiment					4	4.1%	2	1.1%
Observation	2	4.8%	1	1.7%	6	6.2%	9	5.0%
Literature review	8	19.0%	10	16.9%	14	14.4%	21	11.7%
Literature review - non-academic	20	47.6%	18	30.5%	39	40.2%	71	39.4%
Focus group			1	1.7%	1	1.0%	6	3.3%
none specified	12	28.6%	12	20.3%	20	20.6%	33	18.3%
Total	42	100.0%	59	100.0%	97	100.0%	180	100.0%

### C.10.3. Data collection methods per top 16 publishing countries

Publishing country	Questionnaire	Interview	Secondary analysis	Experimentation	Observation	Literature review	Focus group	none specified
Australia (53)	20.8%	30.2%	7.5%		43.4%	56.6%		1.9%
Canada (20)	5.0%	15.0%			40.0%	20.0%		40.0%
China (17)	35.3%	29.4%	5.9%		5.9%	29.4%	23.5%	35.3%
Denmark (14)	21.4%	64.3%	14.3%		21.4%	85.7%		
Finland (15)	13.3%	20.0%		20.0%	6.7%	46.7%		13.3%
France (21)	9.5%	19.0%	4.8%	9.5%	28.6%	33.3%		38.1%
Germany (24)	20.8%	25.0%	4.2%	12.5%	16.7%	12.5%		37.5%
Hong Kong (23)	34.8%	43.5%			4.3%	26.1%		26.1%
Italy (24)	16.7%	37.5%	33.3%	4.2%	4.2%	16.7%		8.7%
Netherlands (23)	17.4%	21.7%	47.8%		8.7%	47.8%		
Norway (18)	11.1%	27.8%	16.7%		11.1%	55.6%		22.2%
Spain (34)	29.4%	35.3%	20.6%	8.8%	8.8%	26.5%	8.8%	8.8%
Sweden (21)	9.5%	38.1%	19.0%	4.8%	14.3%	38.1%		14.3%
Taiwan (14)	64.3%	28.6%	14.3%			21.4%		
UK (135)	20.0%	37.0%	11.9%		3.7%	11.1%	41.5%	19.3%
USA (179)	28.5%	33.0%	24.0%	1.7%	6.1%	7.3%	38.5%	1.7%
								13.4%

#### C.10.4. Data collection methods per paper impact

Citation	Questionnaire	Interview	Secondary analysis	Experiment	Observation	Literature review	Literature review, non-academic	Focus group	none specified
0 - 10 (282)	18.8%	27.0%	13.8%	1.8%	5.0%	13.1%	39.7%	2.1%	22.3%
10.5 - 20	18.4%	38.8%	16.3%	2.0%	6.1%	16.3%	36.7%		14.3%
(49)									
20.5 - 30	26.3%	57.9%	5.3%			15.8%	47.4%	5.3%	10.5%
(19)									
30.5 - 40	25.0%	37.5%	50.0%				25.0%	12.5%	12.5%
(8)									
40.5 - 50		25.0%	50.0%				25.0%		25.0%
(4)									
50.5 - 60	16.7%	16.7%				16.7%	16.7%		50.0%
(6)									
60.5 - 70			50.0%				50.0%		
(2)									
70.5 - 80								100.0%	50.0%
(2)									
90.5 - 100			50.0%					100.0%	
(2)									
100.5 - 110		33.3%	33.3%				33.3%	66.7%	
(3)									
135 (1)		100.0%							

## C.11. Research strategies

### C.11.1. Research strategies 1997 - 2012

Research strategy	Frequency	Percent
Single case study	107	28.3%
Survey research	75	19.8%
Multiple case study	71	18.8%
Quantitative modelling	67	17.7%
Literature study	50	13.2%
Meta-study	19	5.0%
Total	389	102.9%

### C.11.2. Research strategies four time intervals

Research strategy	1997 - 2000		2001 - 2004		2005 - 2008		2009 - 2012	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Survey research	6	14.3%	11	18.6%	17	17.5%	41	22.8%
Literature study	9	21.4%	7	11.9%	16	16.5%	18	10.0%
Meta-study	1	2.4%	3	5.1%	4	4.1%	11	6.1%
Single case study	15	35.7%	20	33.9%	23	23.7%	49	27.2%
Multiple case study	5	11.9%	11	18.6%	30	30.9%	25	13.9%
Quantitative modelling	6	14.3%	9	15.3%	11	11.3%	41	22.8%
Total	42	100.0%	61	103.4%	101	104.1%	185	102.8%

### C.11.3. Research strategies per top 16 publishing countries

Publishing country	Survey research	Literature study	Meta-study	Single case study	Multiple case study	Quantitative modelling
Australia (53)	26.4%	37.7%	3.8%	18.9%	9.4%	3.8%
Canada (20)	5.0%	25.0%		25.0%	20.0%	25.0%
China (17)	35.3%			11.8%		52.9%
Denmark (14)	21.4%	14.3%	20.0%	35.7%	35.7%	7.1%
Finland (15)	13.3%	20.0%		33.3%	13.3%	
France (21)	9.5%	9.5%		9.5%	28.6%	42.9%
Germany (24)	20.8%	8.3%	4.2%	8.3%	16.7%	41.7%
Hong Kong (23)	52.2%	21.7%			17.4%	26.1%
Italy (24)	16.7%			37.5%	12.5%	33.3%
Netherlands (23)	13.0%	13.0%	17.4%	17.4%	30.4%	8.7%
Norway (18)	11.1%	22.2%		16.7%	16.7%	33.3%
Spain (34)	23.5%		5.9%	8.8%	32.4%	29.4%
Sweden (21)	14.3%			23.8%	57.1%	4.8%
Taiwan (14)	64.3%	7.1%		28.6%		
UK (135)	21.5%	13.3%	2.2%	34.8%	21.5%	10.4%
USA (179)	26.8%	7.3%	10.6%	25.1%	15.1%	15.1%

#### C.11.4. Research strategies per paper impact

Citation category	Survey research	Literature study	Meta-study	Single case study	Multiple case study	Quantitative modelling
0 - 10 (282)	19.9%	11.3%	4.6%	29.4%	17.4%	19.9%
10.5 - 20 (49)	14.3%	20.4%	2.0%	32.7%	20.4%	14.3%
20.5 - 30 (19)	31.6%	15.8%		15.8%	36.8%	10.5%
30.5 - 40 (8)	25.0%		12.5%	25.0%	25.0%	12.5%
40.5 - 50 (4)			25.0%	25.0%	25.0%	25.0%
50.5 - 60 (6)	16.7%	16.7%		33.3%		33.3%
60.5 - 70 (2)		50.0%	50.0%			
70.5 - 80 (2)		100.0%				
90.5 - 100 (2)	50.0%		50.0%			
100.5 - 110 (3)	33.3%	33.3%				
135 (1)	100.0%					

## C.12. Topics

### C.12.1. Topics four time intervals

Topic	1997 - 2000		2001 - 2004		2005 - 2008		2009 - 2012	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Supplier relations	5	11.9%	4	6.8%	10	10.3%	6	3.3%
Make-or-buy	4	9.5%	9	15.3%	6	6.2%	12	6.7%
Selection	13	31.0%	9	15.3%	9	9.3%	34	18.9%
Contracting	4	9.5%	9	15.3%	15	15.5%	25	13.9%
Legal aspects	5	11.9%	3	5.1%	5	5.2%	13	7.2%
Procurement strategy	19	45.2%	37	62.7%	59	60.8%	117	65.0%
PP tool			1	1.7%	4	4.1%	2	1.1%
Effect of procurement	4	9.5%	4	6.8%	6	6.2%	8	4.4%
Anti-corruption			1	1.7%	4	4.1%	5	2.8%
Trade discrimination	3	7.1%	2	3.4%	2	2.1%	7	3.9%
PP status overview	3	7.1%	5	8.5%	10	10.3%	9	5.0%
Other	1	2.4%			3	3.1%	7	3.9%
Total	61	145.2%	84	142.4%	133	137.1%	245	136.1%

### C.12.2. Procurement strategies four time intervals

Procurement strategy	1997 - 2000		2001 - 2004		2005 - 2008		2009 - 2012	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
PPP	2	10.5%	11	29.7%	19	32.2%	42	35.9%
Innovation procurement					1	1.7%	11	9.4%
Contracting-out	15	78.9%	19	51.4%	15	25.4%	26	22.2%
GPP			1	2.7%	10	16.9%	18	15.4%
e-Procurement			2	5.4%	5	8.5%	9	7.7%
Early contractor involvement							1	0.9%
Lean PP							2	1.7%
Shared services							1	0.9%
Joint procurement	1	5.3%	1	2.7%	2	3.4%	2	1.7%
Prime contracting					1	1.7%		
Market-based PP					1	1.7%	1	0.9%
Emergency contracting					1	1.7%	1	0.9%
De- / centralization	1	5.3%			1	1.7%	1	0.9%
PP Partnerships					1	1.7%		
Social procurement			1	2.7%				
Eminent domain ...							1	0.9%
Mixed service delivery								
Offsets								
Promoting SMEs								
Dual sourcing								
Total	19	100.0%	37	100.0%	59	100.0%	117	100.0%

### C.12.3. PP effects four time intervals

Effect	1997 - 2000		2001 - 2004		2005 - 2008		2009 - 2012	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Economy	2	50.0%	2	50.0%	2	33.3%	4	50.0%
Human rights, society			1	25.0%	1	16.7%	1	12.5%
SMEs					1	16.7%	1	12.5%
Ethics							1	12.5%
PP efficiency	1	25.0%			1	16.7%	1	12.5%
Private contractor			1	25.0%	1	16.7%	0.0%	0.0%
Quality							1	12.5%
Government accountability	1	25.0%					0.0%	0.0%
Total	4	100.0%	4	100.0%	6	100.0%	8	100.0%

## C.13. Study characteristics per topic

### C.13.1. Government levels per topic

Topic	Govern- mental	Municipal	Local	no gov- ern- ment level
Supplier relations (25)	8.0%	8.0%	28.0%	56.0%
Make-or-buy (31)	3.2%	19.4%	35.5%	41.9%
Selection (65)	9.2%	12.3%	26.2%	61.5%
Contracting (53)	13.2%	13.2%	30.2%	52.8%
Legal aspects (26)	7.7%	19.2%	11.5%	76.9%
PPP (74)	8.1%	6.8%	12.2%	77.0%
Innovation procurement (12)	25.0%	8.3%	33.3%	41.7%
Contracting-out (75)	14.7%	20.0%	28.0%	45.3%
GPP (29)	3.4%	24.1%	27.6%	48.3%
e-Procurement (16)	12.5%	12.5%	43.8%	43.8%
Early contractor involvement (1)				100.0%
Lean PP (2)	50.0%		50.0%	
Shared services (1)				100.0%
Joint procurement (5)			20.0%	80.0%
Prime contracting (2)	50.0%			50.0%
Market-based PP (2)	50.0%	50.0%	100.0%	
Emergency contracting (2)	50.0%	50.0%		
De- / centralization (3)	66.7%		33.3%	33.3%
PP Partnerships (1)				100.0%
Social procurement (1)				100.0%
Eminent domain vs. purchase of land (1)	100.0%			
Mixed service delivery (2)			50.0%	50.0%
Offsets (1)				100.0%
Promoting SMEs (1)				100.0%
Dual sourcing (1)				100.0%
PP tool (7)	28.6%		14.3%	57.1%
Effect: Economy (10)	10.0%	10.0%	50.0%	40.0%
Effect: Human rights, society (3)	33.3%			66.7%
Effect: SMEs (2)			100.0%	
Effect: Ethics (1)				100.0%
Effect: PP efficiency (2)	50.0%			50.0%
Effect: Private contractor (2)				100.0%
Effect: Quality (1)	100.0%			
Effect: Government accountability (1)				100.0%
Anti-corruption (10)	10.0%	10.0%	30.0%	70.0%
Trade discrimination (14)	21.4%	7.1%	14.3%	57.1%
PP status overview (27)	14.8%	18.5%	33.3%	44.4%
Purchase shocks (2)	100.0%			

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Topic	Government levels per topic – continued from previous page			
	Govern- mental	Municipal	Local	no govern- ment level
Public versus private procurement (1)	100.0%			
PP cost drivers (1)	100.0%	100.0%	100.0%	
SMEs (1)				100.0%
PP markets (1)				100.0%
Ethics in PP (2)		50.0%	50.0%	50.0%
Project based procurement routes (1)				100.0%
Organization of PP function (1)				100.0%
Critique of PP research practice (1)	100.0%	100.0%	100.0%	

### C.13.2. Product types per topic

<b>Topic</b>	<b>Goods</b>	<b>Services</b>	<b>Works</b>	<b>Land</b>	<b>none specified</b>
Supplier relations (25)	8.0%	60.0%	12.0%		28.0%
Make-or-buy (31)	9.7%	61.3%	12.9%		19.4%
Selection (65)	15.4%	41.5%	35.4%		27.7%
Contracting (53)	11.3%	67.9%	15.1%		17.0%
Legal aspects (26)	19.2%	34.6%	11.5%		53.8%
PPP (74)	1.4%	31.1%	51.4%		25.7%
Innovation procurement (12)	66.7%	41.7%	8.3%		33.3%
Contracting-out (75)	1.3%	86.7%	4.0%		9.3%
GPP (29)	41.4%	34.5%	6.9%		41.4%
e-Procurement (16)	25.0%	31.3%	6.3%		62.5%
Early contractor involvement (1)			100.0%		
Lean PP (2)					100.0%
Shared services (1)		100.0%			
Joint procurement (5)	80.0%	20.0%			
Prime contracting (2)	50.0%		50.0%		
Market-based PP (2)	50.0%	100.0%	50.0%		
Emergency contracting (2)	50.0%	50.0%	50.0%		50.0%
De- / centralization (3)	100.0%	66.7%			
PP Partnerships (1)		100.0%			
Social procurement (1)					100.0%
Eminent domain vs. purchase of land (1)				100.0%	
Mixed service delivery (2)		100.0%	50.0%		100.0%
Offsets (1)					100.0%
Promoting SMEs (1)	100.0%	100.0%			
Dual sourcing (1)	100.0%				
PP tool (7)	14.3%		42.9%		42.9%
Effect: Economy (10)	50.0%	70.0%	10.0%		30.0%
Effect: Human rights, society (3)		33.3%		33.3%	33.3%
Effect: SMEs (2)	50.0%	50.0%			50.0%
Effect: Ethics (1)					100.0%
Effect: PP efficiency (2)	50.0%	50.0%			50.0%
Effect: Private contractor (2)		100.0%			
Effect: Quality (1)		100.0%			
Effect: Government accountability (1)		100.0%			
Anti-corruption (10)	30.0%				70.0%
Trade discrimination (14)	28.6%	21.4%	7.1%		57.1%
PP status overview (27)	14.8%	59.3%	29.6%		11.1%
Purchase shocks (2)					100.0%
Public versus private procurement (1)					100.0%
PP cost drivers (1)	100.0%				

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Product types per topic – continued from previous page					
Topic	Goods	Services	Works	Land	none specified
SMEs (1)	100.0%	100.0%	100.0%		
PP markets (1)	100.0%	100.0%			
Ethics in PP (2)		50.0%			50.0%
Project based procurement routes (1)			100.0%		
Organization of PP function (1)					100.0%
Critique of PP research practice (1)					100.0%

### C.13.3. Industries and sectors per topic

Topic	Construction	ICT	Health sector	Education	Defense sector	Facility services	Professional services	Services, not specified	Private sector, not specified	Manufacturing	Other	Social	Child welfare	Transportation	SMEs	Waste collection, ...
Supplier relations (25)	12.0%		4.0%		8.0%			20.0%	32.0%		8.0%	16.0%	4.0%			4.0%
Make-or-buy (31)	19.4%	3.2%	9.7%			3.2%	3.2%	35.5%	22.6%		6.5%	3.2%		6.5%		6.5%
Selection (65)	27.7%	4.6%		1.5%		3.1%	3.1%	20.0%	43.1%	1.5%	4.6%	4.6%		3.1%		3.1%
Contracting (53)	17.0%	7.5%	11.3%		1.9%	1.9%	1.9%	22.6%	20.8%	1.9%	9.4%	11.3%	5.7%			7.5%
Legal aspects (26)	11.5%	3.8%						23.1%	73.1%						3.8%	
PPP (74)	51.4%	4.1%	2.7%	1.4%	2.7%	2.7%		14.9%	29.7%		2.7%	1.4%	1.4%	1.4%		1.4%
Innovation procurement (12)	18.2%	27.3%	18.2%					18.2%	45.5%	27.3%					9.1%	
Contracting-out (75)	5.3%		17.3%		1.3%	2.7%	1.3%	38.7%	9.3%	1.3%	6.7%	17.3%	4.0%	2.7%		4.0%
GPP (29)	6.9%					3.4%		3.4%	20.7%	69.0%	3.4%	6.9%		3.4%		3.4%
e-Procurement (16)								31.3%	87.5%							6.3%
Early contractor involvement (1)	100.0%															
Lean PP (2)																
Shared services (1)									100.0%							
Joint procurement (5)			40.0%	40.0%					20.0%							
Prime contracting (2)	50.0%		50.0%													
Market-based PP (2)	50.0%															
Emergency contracting (2)	50.0%															
De- / centralization (3)									33.3%	100.0%						
PP Partnerships (1)		100.0%												100.0%		
Social procurement (1)											100.0%					
Eminent domain vs. purchase of land (1)												100.0%				
Mixed service delivery (2)	50.0%		50.0%						100.0%							
Offsets (1)											100.0%					
Promoting SMEs (1)															100.0%	
Dual sourcing (1)						100.0%										
PP tool (7)	42.9%											57.1%				
Effect: Economy (10)			10.0%			10.0%			40.0%	70.0%						
Effect: Human rights, society (3)									33.3%	33.3%		33.3%				
Effect: SMEs (2)												100.0%				
Effect: Ethics (1)												100.0%				
Effect: PP efficiency (2)												50.0%	100.0%			
Effect: Private contractor (2)			50.0%									50.0%	100.0%			
Effect: Quality (1)							100.0%						100.0%			
Effect: Government accountability (1)													100.0%			
Anti-corruption (10)		20.0%		10.0%									80.0%			
Trade discrimination (14)	7.1%								14.3%	71.4%	7.1%	7.1%				

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Topic	Industries and sectors per topic – continued from previous page														
	Construc- tion	ICT	Health sector	Education sector	Defense sector	Facility ser- vices	Profes- sional ser- vices	Services, not spec- ified	Private sector, not speci- fied	Manufac- turing	Other	Social welfare	Child welfare	Transpor- tation	SMEs
PP status overview (27)	29.6%	3.7%	3.7%		3.7%		7.4%	48.1%	18.5%		3.7%				
Purchase shocks (2)									100.0%						
Public versus private procurement (1)									100.0%						
PP cost drivers (1)										100.0%					100.0%
SMEs (1)															
PP markets (1)									100.0%						
Ethics in PP (2)									50.0%						50.0%
Project based procurement routes (1)	100.0%														
Organization of PP function (1)															
Critique of PP research practice (1)									100.0%						

## C.14. Research designs per topic

### C.14.1. Methodologies per topic

Topic	Qualitative	Quantitative
Supplier relations (25)	72.0%	28.0%
Make-or-buy (31)	29.0%	71.0%
Selection (65)	41.5%	61.5%
Contracting (53)	67.9%	35.8%
Legal aspects (26)	76.9%	30.8%
PPP (74)	71.6%	32.4%
Innovation procurement (12)	91.7%	8.3%
Contracting-out (75)	73.3%	29.3%
GPP (29)	79.3%	24.1%
e-Procurement (16)	50.0%	56.3%
Early contractor involvement (1)	100.0%	
Lean PP (2)	50.0%	50.0%
Shared services (1)	100.0%	
Joint procurement (5)	60.0%	40.0%
Prime contracting (2)	100.0%	
Market-based PP (2)	100.0%	
Emergency contracting (2)	100.0%	
De- / centralization (3)	33.3%	66.7%
PP Partnerships (1)	100.0%	
Social procurement (1)	100.0%	
Eminent domain vs. purchase of land (1)		100.0%
Mixed service delivery (2)		100.0%
Offsets (1)		100.0%
Promoting SMEs (1)		100.0%
Dual sourcing (1)		100.0%
PP tool (7)	71.4%	42.9%
Effect: Economy (10)	30.0%	70.0%
Effect: Human rights, society (3)	66.7%	33.3%
Effect: SMEs (2)	50.0%	50.0%
Effect: Ethics (1)	100.0%	
Effect: PP efficiency (2)	50.0%	50.0%
Effect: Private contractor (2)	100.0%	
Effect: Quality (1)	100.0%	
Effect: Government accountability (1)	100.0%	
Anti-corruption (10)	60.0%	50.0%
Trade discrimination (14)	21.4%	85.7%
PP status overview (27)	70.4%	29.6%
Purchase shocks (2)		100.0%
Public versus private procurement (1)		100.0%
PP cost drivers (1)		100.0%
SMEs (1)		100.0%
PP markets (1)		100.0%
Ethics in PP (2)	100.0%	
Project based procurement routes (1)	100.0%	
Organization of PP function (1)	100.0%	
Critique of PP research practice (1)	100.0%	

### C.14.2. Time dimensions per topic

Topic	Cross-sectional	Longitudinal
Supplier relations (25)	80.0%	20.0%
Make-or-buy (31)	71.0%	29.0%
Selection (65)	86.2%	13.8%
Contracting (53)	83.0%	17.0%
Legal aspects (26)	73.1%	26.9%
PPP (74)	83.8%	16.2%
Innovation procurement (12)	91.7%	8.3%
Contracting-out (75)	72.0%	28.0%
GPP (29)	82.1%	17.9%
e-Procurement (16)	100.0%	
Early contractor involvement (1)	100.0%	
Lean PP (2)	50.0%	50.0%
Shared services (1)	100.0%	
Joint procurement (5)	40.0%	60.0%
Prime contracting (2)	100.0%	
Market-based PP (2)		100.0%
Emergency contracting (2)	100.0%	
De- / centralization (3)	66.7%	33.3%
PP Partnerships (1)	100.0%	
Social procurement (1)		100.0%
Eminent domain vs. purchase of land (1)	100.0%	
Mixed service delivery (2)	50.0%	50.0%
Offsets (1)	100.0%	
Promoting SMEs (1)	100.0%	
Dual sourcing (1)	100.0%	
PP tool (7)	71.4%	28.6%
Effect: Economy (10)	80.0%	20.0%
Effect: Human rights, society (3)	100.0%	
Effect: SMEs (2)	100.0%	
Effect: Ethics (1)	100.0%	
Effect: PP efficiency (2)	50.0%	50.0%
Effect: Private contractor (2)	100.0%	
Effect: Quality (1)	100.0%	
Effect: Government accountability (1)	100.0%	
Anti-corruption (10)	80.0%	20.0%
Trade discrimination (14)	57.1%	42.9%
PP status overview (27)	59.3%	40.7%
Purchase shocks (2)	50.0%	50.0%
Public versus private procurement (1)	100.0%	
PP cost drivers (1)		100.0%
SMEs (1)	100.0%	
PP markets (1)	100.0%	
Ethics in PP (2)	100.0%	
Project based procurement routes (1)	100.0%	
Organization of PP function (1)	100.0%	
Critique of PP research practice (1)	100.0%	

### C.14.3 Data collection methods per topic

Topic	Questionnaire	Interview	Secondary analysis	Experimentation	Observation	Literature review	Literature review, non-academic	Focus group	none specified
Supplier relations (25)	32.0%	44.0%	4.0%	4.0%	8.0%	8.0%	40.0%	20.0%	20.0%
Make-or-buy (31)	19.4%	16.1%	38.7%			16.1%	19.4%		16.1%
Selection (65)	20.0%	23.1%	12.3%	4.6%	3.1%	10.8%	27.7%	1.5%	29.2%
Contracting (53)	17.0%	37.7%	11.3%		9.4%	18.9%	43.4%	3.8%	20.8%
Legal aspects (26)	3.8%	7.7%	26.9%		15.4%	15.4%	69.2%		11.5%
PPP (74)	17.6%	29.7%	4.1%		6.8%	13.5%	39.2%	4.1%	32.4%
Innovation procurement (12)	16.7%	50.0%	16.7%			41.7%	66.7%	8.3%	8.3%
Contracting-out (75)	17.3%	36.0%	17.3%		9.3%	18.7%	45.3%		10.7%
GPP (29)	20.7%	44.8%	13.8%		3.4%	10.3%	44.8%	3.4%	3.4%
e-Procurement	43.8%	31.3%	18.8%		18.8%	6.3%	31.3%		
(16) Early contractor involvement (1)		100.0%	100.0%				100.0%		
Lean PP (2)	50.0%						50.0%	100.0%	
Shared services (1)									
Joint procurement (5)				40.0%				40.0%	20.0%
Prime contracting (2)					50.0%				50.0%

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Topic	Questionnaire	Interview	Secondary analysis	Experiment	Observation	Literature review	Focus group	none specified
Market-based PP (2)		100.0%			50.0%		100.0%	
Emergency contracting (2)		50.0%				50.0%		
De-/ centralization (3)	33.3%			33.3%			33.3%	
PP Partnerships (1)							100.0%	
Social procurement (1)							100.0%	
Eminent domain vs. purchase of land (1)							100.0%	
Mixed service delivery (2)					50.0%			
Offsets (1)						100.0%		
Promoting SMEs (1)							100.0%	
Dual sourcing								100.0%
(1) PP tool (7)	14.3%		28.6%	14.3%		57.1%	14.3%	28.6%
Effect: Economy (10)	20.0%		10.0%	60.0%		20.0%	20.0%	20.0%
Effect: Human rights, society (3)						33.3%	66.7%	33.3%
Effect: SMEs (2)	50.0%		50.0%				50.0%	

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Topic	Data collection methods per topic – continued from previous page					
	Questionnaire	Interview	Secondary analysis	Experiment	Observation	Literature review
					non-academic	none specified
Effect: Ethics (1)	Ethics					100.0%
Effect: PP efficiency (2)						50.0%
Effect: Private contractor (2)					50.0%	50.0%
Effect: Quality (1)					100.0%	
Effect: Government accountability (1)	Gov-					100.0%
Anti-corruption (10)	erment ac-					
Trade discrimination (14)	countability					
PP status overview (27)						
Purchase shocks (2)						
Public versus private procurement (1)						
PP cost drivers (1)						
SMEs (1)						
PP markets (1)						
Ethics in PP (2)						

Topic	Data collection methods per topic – continued from previous page					
	Questionnaire	Interview	Secondary analysis	Experimental	Observation	Literature review
						Focus group non-specified
Project based procurement routes (1)						100.0%
Organization of PP function (1)						100.0%
Critique of PP research practice (1)						100.0%

#### C.14.4 Research strategies per topic

Topic	Survey research	Literature study	Meta-study	Single case study	Multiple case study	Quantitative modelling
Supplier relations (25)	36.0%	8.0%	16.1%	24.0%	28.0%	8.0%
Make-or-buy (31)	22.6%	6.5%	6.2%	9.7%	9.7%	35.5%
Selection (65)	23.1%	12.3%	1.9%	16.9%	13.8%	33.8%
Contracting (53)	15.1%	13.2%	0.0%	30.2%	18.9%	20.8%
Legal aspects (26)	3.8%	23.1%	0.0%	46.2%	15.4%	11.5%
PPP (74)	21.6%	16.2%	2.7%	29.7%	20.3%	14.9%
Innovation procurement (12)	8.3%	25.0%	8.3%	33.3%	33.3%	8.3%
Contracting-out (75)	20.0%	14.7%	6.7%	32.0%	21.3%	5.3%
GPP (29)	27.6%	10.3%	3.4%	41.4%	17.2%	
e-Procurement (16)	37.5%			50.0%	18.8%	
Early contractor involvement (1)		50.0%			100.0%	
Lean PP (2)			50.0%	100.0%		
Shared services (1)		20.0%		60.0%	20.0%	
Joint procurement (5)				50.0%	50.0%	
Prime contracting (2)		50.0%		50.0%	50.0%	
Market-based PP (2)			50.0%	33.3%	100.0%	
Emergency contracting (2)					33.3%	
De- / centralization (3)						33.3%
PP Partnerships (1)						100.0%
Social procurement (1)						
Eminent domain vs. purchase of land (1)						
Mixed service delivery (2)			50.0%			50.0%
Offsets (1)						100.0%
Promoting SMEs (1)				100.0%		
Dual sourcing (1)				100.0%		
PP tool (7)					71.4%	14.3%
Effect: Economy (10)					30.0%	30.0%
Effect: Human rights, society (3)					33.3%	33.3%

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Topic	Research strategies per topic – continued from previous page				
	Survey research	Literature study	Meta-study	Single case study	Multiple case study
Effect: SMEs (2)	50.0%				50.0%
Effect: Ethics (1)		50.0%			
Effect: PP efficiency (2)		50.0%			
Effect: Private contractor (2)		100.0%			
Effect: Quality (1)		100.0%			
Effect: Government accountability (1)		100.0%			
Anti-corruption (10)	30.0%	14.3%		30.0%	20.0%
Trade discrimination (14)	7.1%	29.6%	11.1%	14.3%	14.3%
PP status overview (27)	18.5%		25.9%	14.8%	57.1%
Purchase shocks (2)					100.0%
Public versus private procurement (1)		100.0%			
PP cost drivers (1)	100.0%				100.0%
SMEs (1)					
PP markets (1)	50.0%			50.0%	100.0%
Ethics in PP (2)					
Project based procurement routes (1)		100.0%			
Organization of PP function (1)				100.0%	
Critique of PP research practice (1)		100.0%			

## C.15. High impact papers per topic

### C.15.1. Supplier relations

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Agents or stewards: Using theory to understand the government-nongovernment social service contracting relationship	2007	Journal of Public Administration Research and Theory	100	90	95	Van Slyke, DM
Relationship management in the management of PFI/PPP projects in the UK	2007	International Journal of Project Management	55	55	55	Smyth H., Edkins A.
Transaction costs, relational contracting and public-private partnerships: A case study of UK defence	2003	Journal of Purchasing and Supply Management	51	51	51	Parker D.
The economics of partnership sourcing versus adversarial competition: A critique	1997	European Journal of Purchasing and Supply Management	48	48	48	Parker D., Hartley K.
Partnerships and public procurement: Building social capital through supply relations	2002	Public Administration	43	28	35.5	Er ridge, A, Greer, J

Continued on next page

Title	Year	Journal	Supplier relations – continued from previous page				Authors
			Citations Scopus	Citations WoS	Mean citations	Mean	
The dynamics of contractual and relational governance: Evidence from long-term public-private procurement arrangements	2008	Journal of Purchasing and Supply Management	29	21	25	27	Zheng J., Roehrich J.K., Lewis M.A.
Partnering on defense contracts	2002	Journal Of Construction Engineering And Management	14	16	15	27	Glagola, CR, Sheedy, WM
Asymmetry in procurement auctions: Evidence from snow removal contracts	2006	The Economic Journal	14	16	15	27	Flambard, V., Perrigne, I.
From long-term to short-term contracting	2001	Public Administration Journal	18	6	15	27	Lane, JE
Contractual management in PPP projects: Evaluation of legal versus relational contracting for service delivery	2006	Professional Issues in Engineering Education and Practice	18	6	15	27	Edkins A.J., Smyth H.J.
Trust and completeness in the public sector	2007	Local Government Studies	13	10	11.5	27	Brown, TL, Potoski, M, Van Slyke, DM, Davis, H, Walker, B
Trust-based relationships in local government contracting	1997	Public Money & Management	12	9	10.5	27	

Continued on next page

Title	Supplier relations – continued from previous page		Citations Scopus	Citations WoS	Mean citations	Authors
	Year	Journal				
The Effectiveness of Nonprofit Organization Networks for Social Service Delivery	2010	Nonprofit Management and Leadership	7	7	7	Chen, B, Graddy, EA
The effectiveness of relational contracting in a temporary public organization: Intensive collaboration between an English local authority and private contractors	2007	Public Administration	7	7	7	Davis, P
Legal issues associated with emergent actor roles in innovative U.K. procurement: Prime contracting case study Perspectives on contractual relationships and the move to best value in local authorities Contracting in ten English local authorities: Preferences and practices	2006	Journal of Professional Issues in Engineering Education and Practice	9	4	6.5	Pryke S.D.
	1999	Local Government Studies	6	7	6.5	Walker, H Davis, H
	2000	International Journal of Public Sector Management	6	6	6	Darwin J., Du- berley J., John- son P.

Continued on next page

Title	Year	Journal	Supplier relations – continued from previous page				Authors
			Citations	Scopus	WoS	Mean citations	
			4	3	3.5	West, K	
From bilateral to tri-lateral governance in local government contracting in France	2005	Public Administration					
Building public health goals into the purchasing process: Managed care perspective	1998	American Journal of Preventive Medicine	3	3	3	3	Rosnick, M.
Sustainable partnerships for a green economy: A case study of public procurement for home-grown school feeding	2011	Natural Resources Forum	3	3	3	3	Otsuki K.
Satisfaction of contract provider agencies with a State's Child Welfare Agency	2006	Children and Youth Services Review	4	4	1	2.5	Barton, WH, Folaron, G., Busch, M., Hostetter, C., Oruezabala G., Rico J.-C.
The impact of sustainable public procurement on supplier management - The case of French public hospitals	2012	Industrial Marketing Management	2	0	0	2	
Institutional sources of distrust in government contracting: A comparison between home-based and residential social services in Spain	2009	Public Management Review	2	2	2	2	Saz-Carranza A., Serra A.

Continued on next page

Supplier relations – continued from previous page						
Title	Year	Journal	Citations	Scopus	WoS	Mean citations
				1	2	Authors
Bidder asymmetry in infrastructure procurement: Are there any fringe bidders?	2010	Review of Industrial Organization	3	3	2	Estache A., Iimi A.
To Trust or Not to Trust? What Matters in Local Government-Vendor Relationships?	2012	Journal of Public Administration Research and Theory	0	0	0	Lamothe, M, Lamothe, S

### C.15.2 Make-or-buy

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Privatization and its reverse: Explaining the dynamics of the government contracting process	2004	Journal of Public Administration Research and Theory	117	99	108	Hefetz, A, Warner, M
Transaction costs and institutional explanations for government service production decisions	2003	Journal of Public Administration Research and Theory	100	88	94	Brown, TL, Potoki, M
Contracting for government services: Theory and evidence from U.S. cities	2010	The Journal of Industrial Economics	47	33	40	Levin J., Tadelis S.
Rural-urban differences in privatization: Limits to the competitive state	2003	Environment and Planning C: Government and Policy	40	37	38.5	Warner M., Hefetz A.
Ownership and production costs: Choosing between public production and contracting-out in the case of Swedish refuse collection	2003	Fiscal Studies	37	38	37.5	Ohlsson, H.
Urban rail transit PPPs: Survey and risk assessment of recent strategies	2007	Transport Policy	25	15	20	Phang S.-Y.
Outsourcing: Uncovering the complexity of the decision	2007	International Public Management Journal	13	13	13	Young S.

Continued on next page

Title	Year	Journal	Make-or-buy – continued from previous page				Authors
			Citations Scopus 13	Citations WoS 13	Mean citations	Authors	
Comparative performance of PPPs and traditional procurement in Australia: Which contract state? Four perspectives on over-outsourcing for public services	2010	Construction Management and Economics Australian Journal of Public Administration	12	13	12.5	M. Hood, C.	Raisbeck P., Duffield C., Xu
Exploring Variations in Contracting for Services Among American Local Governments Do Politics Still Matter?	2008	The American Review of Public Administration	12	8	10	Fernandez, S., Ryu, JE, Brudney, JL	
Public versus private ownership: Quantity contracts and the allocation of investment tasks	2010	Journal of Public Economics	9	8	8.5	Hoppe, EI, Schmitz, PW	
Solid-waste contracting-out, competition, and bidding practices among Canadian local governments	2001	Canadian Public Administration	6	9	7.5	McDavid, JC	
Public-private Partnerships and the privatization of financing: An incomplete contracts approach	2009	International Journal of Industrial Organization	10	4	7	de Bettignies, JE, Ross, TW	

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Make-or-buy – continued from previous page						
Title	Year	Journal	Citations	WoS	Mean citations	Authors
			Scopus	10	3	6.5
Transit service contracting and cost-efficiency	1998	Transportation Research Record; Transit Planning, Management, Marketing, New Technology, Capacity, And Quality Journal of Economic Surveys	6	6	6	McCullough, WS, Taylor, BD, Wachs, M
An incomplete contract perspective on public good provision	2005	Review of Industrial Organization	10	2	6	Martimort, D, De Donder, P, de Villemeur, EB, Blanc-Brude F., Goldsmith H., Valila T.
A comparison of construction contract prices for traditionally procured roads and public-private partnerships	2009	Policy Journal	9	3	6	Nicholson-Crotty, S
The politics and administration of privatization: Contracting out for corrections management in the United States	2004	Journal of the American Planning Association	6	3	4.5	Warner M.E., Hefetz A.
Insourcing and outsourcing: The dynamics of privatization among U.S. Municipalities 2002-2007	2012	International Journal of Industrial Organization	5	4	4.5	David, G, Chang, AJ
The determinants of public versus private provision of Emergency Medical Services	2009					

Continued on next page

Title	Year	Journal	Make-or-buy – continued from previous page				Authors
			Citations	Scopus	WoS	Mean citations	
			4	3	3.5	Libby A.M.	
Contracting between public and private providers: A survey of mental health services in California	1997	Administration and Policy in Mental Health and Mental Health Services Research	4				
The present and future of public sector extension in Africa: Contracting out or contracting in?	2000	Public Administration and Development	5	2	3.5	Anderson J., Van Crowder L.	
Public sector comparators for UK PFI roads: Inside the black box	2010	Transportation	3	3	3	Bain R.	
Limiting aspects of contracting out in transitional countries: The case of Estonian prisons	2004	Public Administration and Development	3	2	2.5	Lember, V	
Australian public-sector outsourcing in the 'Golden Era': Cost savings evidence or anecdote?	2008	Australian Accounting Review	2	2	2	Bisman J.F.	
Contracting out by local governments in transitioning nations - The role of technical assistance in Ukraine	2001	Administration & Society	1	1	1	Brown, TL	
Choosing Whether to Buy or Make: The Contracting Out of Employment Reintegration Services by Dutch Municipalities	2011	Social Policy and Administration	1	0	0.5	Plantinga M., de Ridder K., Corra, A.	

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Title	Year	Journal	Make-or-buy – continued from previous page				Authors
			Citations Scopus	Citations WoS	Mean citations	Mean citations	
			1	0	0.5	0.5	
Cost performance comparison of two public sector project procurement techniques	2007	Journal of Management in Engineering	1	0	0	0	Kuprenas, JA, Nasr, EB
Electronic government: Make or buy?	2003	Lecture Notes in Computer Science	0	0	0	0	Scholl, HJ
Using commercial discipline to improve austrian defence procurement: Misplaced enthusiasm?	2012	Contemporary Economic Policy	0	0	0	0	Markowski S., Wylie R.
Ownership and Cost-Sharing Contracts Internal or External Production and Satisfaction with the Chosen Sourcing in Danish Municipalities: Different Theoretical Explanations	2012	Australian Economic Papers Local Government Studies	0	0	0	0	Dalen, DM, Moen, ER Hansen, JR, Mols, NP, Villadsen, AR

### C.15.3 Selection

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Competitive tendering in local government: A review of theory and evidence	1998	Public Administration	56	46	51	Boyne, GA
Public-private partnerships and contract negotiations: An empirical study	2004	Construction Management and Economics	38	38	Ahadzi M., Bowles G.	
Exploring success factors for Taiwan's government electronic tendering system: behavioral perspectives from end users	2004	Government Information Quarterly	36	22	Chu, PY, Hsiao, N, Lee, FW, Chen, CW	
The selection of management consultants: How are governments dealing with this difficult decision? An exploratory study	1998	International Journal of Public Sector Management	23	23	Corcoran J., McLean F.	
Discriminatory public procurement policy and cost reduction incentives	1998	Journal of Public Economics	27	15	Naegelen F., Mogeot M.	
Towards an e-Government efficiency agenda: the impact of information and communication behaviour on e-Reverse auctions in public sector procurement	2007	European Journal Of Information Systems	26	13	Hackney, R, Jones, S, Losch, A	

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Title	Year	Journal	Selection – continued from previous page				Mean citations	Authors
			Scopus	WoS	Citations	16.5		
Transacting under a performance-based contract: The role of negotiation and competitive tendering	2008	Transportation Research Part A	22	11				Hensher, DA, Stanley, J
Public-private partnership projects: Towards a model of contractor bidding decision-making	2006	Journal of Purchasing and Supply Management	15			15	Zitron J.	
Public sector restructuring and regional development: The impact of compulsory competitive tendering in the UK	2000	Regional Studies	15		13	14	Pinch, PL, Patterson, A	
A study on the effectiveness of the most advantageous tendering method in the public works of Taiwan Contract service firms in local authorities: Evolving geographies of activity	2006	International Journal of Project Management	13			13	Tzeng W.-L., Li J.C.-C., Chang T.-Y.	
Auction procedures and competition in public services: The case of urban public transport in France and London	2009	Utilities Policy	16		8	12	Amaral, M., Saussier, S., Yvrande-Billon, A	
Contractor selection in government procurement auctions: a case study	2009	European Journal of Industrial Engineering	13	10		11.5	Padhi, SS, Mohapatra, PKJ	

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Selection – continued from previous page									
Title	Year	Journal	Citations	Scopus	WoS	Citations	Mean	Authors	
Using a DEA-cross efficiency approach in public procurement tenders	2012	European Journal of Operational Research	10	13	10	11.5	Falagario M., Sciancalepore F., Costantino N., Pietroforte R.		
Trust-based relationships in local government contracting	1997	Public Money & Management	12	9	10.5	R. Davis, H. Walker, B			
Improving concessionaire selection protocols in public/private partnered infrastructure projects	2004	Journal Of Construction Engineering And Management	13	7	10	Zhang, XQ			
Corruption in public contracting auctions: The role of transparency in bidding processes	2006	Annals of Public and Cooperative Economics	10	10	10	Boehm F., Olaya J.			
Environmental criteria in the public purchases above the EU threshold values by three Nordic countries: 2003 and 2005	2009	Ecological Economics	12	7	9.5	Nissinen A., Parikka-Alhola K., Rita H.			
Evaluation of tenders in information technology	2000	Decision Support Systems	13	5	9	Rapcsak, T., Sagj, Z., Toth, T., Ketszeri L., Solno A.S., de Santos P.G.			
Transaction costs in transport public-private partnerships: Comparing procurement procedures	2010	Transport Reviews	11	7	9				

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Title	Year	Journal	Selection – continued from previous page			Mean citations	Authors
			Citations Scopus	Citations WoS	11		
Effects of transparency in procurement practices on government expenditure: A case study of municipal public works	2009	Review of Industrial Organization	11	6	8.5	Ohashi H.	
The challenge of competitive procurement: Value for money versus small business support	2007	Public Money & Management	11	6	8.5	Loader K.	
Contracting and negotiation: Effective practices of successful human service contract managers	1998	Public Administration Review	9	8	8.5	Gooden, V	
Post-objective determination of weights of the evaluation factors in public procurement tenders	2010	European Journal of Operational Research	7	6	6.5	Lorentziadis P.L.	
SMES and public procurement policy	2003	Review of Economic Design	6	6	6	Morand P.-H.	
Procurement contracting with time incentives: Theory and evidence	2011	The Quarterly Journal of Economics	6	6	6	Lewis G., Bajari P.	
Full disclosure of tender evaluation models: Background and application in Portuguese public procurement	2010	Journal of Purchasing and Supply Management	6	5	5.5	Mateus, R, Ferreira, JA, Carreira, J	

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Title	Year	Journal	Selection – continued from previous page			Mean citations	Authors
			Scopus	Citations	WoS		
Purchasing UK public sector property and construction professional services: Competition v quality Bribery and public procurement: an experimental study	2001	European Journal of Purchasing and Supply Management	5	5	5	4.5	Buchner, S, Freytag, A, Gonzalez, LG, Guth, W, Rimmer, S
Competitive tendering and outsourcing - Initiatives and methods	1998	Australian Journal of Public Administration	5	3	4	4	Waara F.
Mitigating contractual hazards in public procurement: A study of Swedish local authorities	2008	Construction Management and Economics	4			4	Bance P.
Opening up Public Services to Competition by Putting Them Out to Tender: An Evaluation	2003	Annals of Public and Cooperative Economics	4			4	Bance P.
Public sector comparators for UK PFI roads: Inside the black box	2010	Transportation	3	3	3	3	Bain R.
An ANP- and AHP-based approach for weighting criteria in public works bidding	2010	Journal of the Operational Research Society	3	2	2.5	2.5	Pastor-Ferrando, JP, Aragones-Beltran, P, Hospitaler-Perez, A, Garcia-Melon, M

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Title	Year	Journal	Selection – continued from previous page			Mean citations	Authors
			Scopus	Citations	WoS		
			3	2	2.5		
A multiattribute sealed-bid procurement auction with multiple budgets for government vendor selection	2011	Decision Analysis	2	2	2	2	Simon J., Melese F.
The role of the discount rate in tendering highway concessions under the LPVR approach	2010	Transportation Research Part A	2	2	2	2	Vassallo, JM
Public procurement incentives for sustainable design services: Swedish experiences	2009	Architectural engineering and design management	2	2	2	2	Sporrong J., Brochner J.
Towards a pan-european e-procurement platform to aggregate, publish and search public procurement notices powered by linked open data: The moldreas approach	2012	International Journal of Software Engineering and Knowledge Engineering	3	1	2	2	Alvarez J.M., Labra J.E., Cifuentes F., Alor-Hernandez G., Sanchez C., Luna J.A.G.
Reputation, competition, and entry in procurement	2012	International Journal of Industrial Organization	1	2	1.5	2	Spagnolo G.
Regulating joint bidding in public procurement	2009	Journal of Competition Law and Economics	2	1	1.5	1.5	Albano G.L., Spagnolo G., Zanza M.
A public procurement combinatorial auction mechanism with quality assignment	2011	Decision Support Systems	3	0	1.5	1.5	Chen, J., Huang, H., Kauffman, R.J.

Continued on next page

Title	Year	Journal	Citations	WoS	Mean citations	Authors
			Scopus	2	1	
Balancing the additional costs of purchasing and the vendor set dimension to reduce public procurement costs	2012	Journal of Purchasing and Supply Management	1	1	1.5	Costantino, N., Dotoli, M., Falagario, M., Sciancalepore, F.
Government concession contracts in Chile: The role of competition in the bidding process	2004	Economic Development and Cultural Change	1	2	1.5	Paredes, RD, Sanchez, JM
Best value concessionaire selection through a fuzzy logic system	2009	Expert Systems with Applications	1	1	1	Zhang, XQ
Public Procurement at the Local Level in Austria: The Economic Consequences of Compulsory Competitive Tendering for Public Services	2003	Expert Systems with Applications	1	1	1	Obermann G., Kostal T.
Public procurement design: Lessons from the private sector	2012	International Journal of Industrial Organization	2	0	1	Tadelis, S
Are public sector procurement models and practices hindering small and medium suppliers?	2011	Public Money & Management	1	1	1	Loader K.
Combinatorial auctions in public procurement: Experiences from Sweden	2012	Journal of Public Procurement	1	1	1	Lumander A., Lundberg S.

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Selection – continued from previous page						
Title	Year	Journal	Citations	Citations WoS	Mean citations	Authors
			Scopus	1	1	Mardas D.
Tendering procedures and buy-national policies	1999	International Advances in Economic Research	1	1	1	Neupane A., Soar J., Vaidya K., Heifetz, KR
Perceived benefits related to anti-corruption from e-tendering system in Nepal	2012	Asian Journal of Information Technology	1	1	1	
Striking a balance between government efficiency and fairness to contractors: Past performance evaluations in government contracts	1998	Administrative Law Review	1	1	1	
Publishing construction contracts to improve efficiency and governance	2012	Civil Engineering Special Issue	1	1	1	Kenny, C
Correlating Bid Price with the Number of Bidders and Final Construction Cost of Public Street Projects	2010	Transportation Research Record	1	1	1	Shrestha, PP, Pradhananga, N
Determinants of the number of bidders in the competitive procurement of electricity supply contracts in the Japanese public sector	2010	Energy Economics	1	1	1	Hattori, T
Public Procurement Auctions and Competition in Turkey	2012	Review of Industrial Organization	1	0	0.5	Onur, I, Ozcan, R, Tas, BKO
How does Government Procurement Law affect bidding price competition in Taiwan?	2004	Building Research & Information	1	0	0.5	Peng, YH, Chang, CL

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Title	Year	Journal	Selection – continued from previous page			Mean citations	Authors
			Scopus	Citations	WoS		
Risk assessment of competitive procurement on Alabama highway projects with Texas comparisons Free Riding in Combinatorial First-Price Sealed-Bid Auctions	1998	Transportation Research Record	1649	1	0	0.5	Crowley L.G., Madewell J.L.
The Politics of Transaction Costs Is Competitive Contracting Really Competitive? Exploring Government Nonprofit Collaboration in China	2009	B E Journal Of Theoretical Economics	1	0	0	0.5	Marechal, F, Morand, PH
An Optimization Modeling Approach to Awarding Large Fire Support Wildfire Helicopter Contracts from the US Forest Service Selection of contractors for middle-sized projects in Turkey	2012	Forest Science	0	0	0	0	Choi Y.-C.
Environmental impacts and the most economically advantageous tender in public procurement Quality or Price? Evidence from ODA-Financed Public Procurement	2011	Gazi University Journal of Science	0	0	0	0	Jing, YJ, Chen, B
	2012	Journal of Public Procurement	0	0	0	0	Parikka-Alhola K., Nissinen A.
	2012	Public Finance Review	0	0	0	0	Estache A., Iimi A.

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Selection – continued from previous page						
Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
Welfare loss in linear price-preference procurement auctions	2007	International Game Theory Review	0	0	0	Koh W.T.H.

#### C.15.4 Contracting

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
	2005	International Journal of Project Management	135	135	135	
The allocation of risk in PPP/PFI construction projects in the UK	2003	Public Administration Review	68	61	64.5	intoye A., Edwards P.J., Hardcastle C., Brown, TL, Potoski, M
Contract-management capacity in municipal and county governments	2006	International Journal of Project Management	53	53	53	Abednego M.P., Ogunlana S.O.
Good project governance for proper risk allocation in public-private partnerships in Indonesia	2004	Public Administration Review	36	35	35.5	Brown, TL, Potoski, M Ke, YJ, Wang, SQ, Chan, APC, Lam, PTI Heinrich, CJ, Choi, Y
Managing the public service market	2010	International Journal of Project Management	34	24	29	
Preferred risk allocation in China's public-private partnership (PPP) projects	2007	The American Review of Public Administration	27	28	27.5	
Performance-based contracting in social welfare programs	2002	The American Review of Public Administration	27	23	25	Dicke, LA
Ensuring accountability in human services contracting						- Can stewardship theory fill the bill?

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Contracting – continued from previous page						
Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
Contracting for management: Assessing management capacity under alternative service delivery arrangements	2006	Journal of Policy Analysis and Management	21	21	21	Brown, T, Potoski, M
The practice of contracting in public private partnerships: Transaction costs and relational contracting in the Irish schools sector	2008	Public Administration	18	15	16.5	Reeves E.
Transacting under a performance-based contract: The role of negotiation and competitive tendering	2008	Transportation Research Part A	22	11	16.5	Hensher, DA, Stanley, J
Contracts in the real world: Case studies from Southern Africa	2005	Social Science & Medicine	14	16	15	Palmer N., Mills A.
Performance measurement: A remedy for increasing the efficiency of public services?	2006	International Journal of Productivity and Performance Management	15	15	15	Greiling D.
The role of contract design in privatization of child welfare services: the Kansas experience	2004	Children Youth and Services Review	15	12	13.5	Umruh, JK, Hodgkin, D
Trust and contract completeness in the public sector	2007	Local Government Studies	13	10	11.5	Brown, TL, Potoski, M, Van Slyke, DM

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Title	Year	Journal	Contracting – continued from previous page			Mean	Authors
			Citations	WoS	citations		
			Scopus	11	10		
Rediscovering implementation: Public sector contracting and human services	2001	Australian Journal of Public Administration	9				Chalmers J., Davis G.
Outcome-orientation in performance contracts: empirical evidence from Swiss local governments	2007	International Review of Administrative Sciences	9	9	9		Proeller, I
Performance-based contracting in Wisconsin public health: Transforming state-local relations	2002	Milbank Quarterly	9	8	8.5		Chapin, J, Fetter, B
Contracting and negotiation: Effective practices of successful human service contract managers	1998	Public Administration Review	9	8	8.5		Gooden, V
Contracting capacity and perceived contracting performance: Nonlinear effects and the role of time	2009	Public Administration Review	8	8	8		Yang, K., Hsieh, J.Y., Li, T.S.
Public procurement as an innovation policy tool: The role of institutions	2009	Science and Public Policy	8			8	Rolfstam M.
Proactive contracting in Finnish PPP projects	2009	International Journal Of Strategic Property Management	9	7	8		Tieva, A, Junnonen, JM
Contract renewal and incentives in public procurement	2006	International Journal of Industrial Organization	9	4	6.5		Dalen, DM, Moen, ER, Riis, C

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Contracting – continued from previous page							
Title	Year	Journal	Citations	WoS	Mean citations	Authors	
			Scopus	7	6	6.5	
Government-to-government contracting: Stewardship, agency, and substitution Applying principles for outcomes-based contracting in a public health program.	2008	International Public Management Journal	7	6	6.5	Marvel, MK, Marvel, HP	
Complex management contracts: the case of customs administration in Mozambique	2004	Journal of public health management and practice	7	6	6	Honore P.A., Simoes E.J., Moonesinghe R., Kirby H.C., Renner M. Hubbard, M., Delay, S., Devas, N	
SHAPING THE PROVISION OF OUTSOURCED PUBLIC SERVICES Incentive Efficacy and Service Delivery	1999	Public Administration and Development	5	5	5	Marvel, MK, Marvel, HP	
Long term risk sharing contracts as an approach to establish public-private partnerships for investment into next generation access networks	2010	Telecommunications Policy		5	5	Fredebeul-Krein, W, Knoben, W	
Modeling offset policy in government procurement Contracting-out in urban green-space management: Instruments, approaches and arrangements	2003 2009	Journal Of Policy Modeling Urban Forestry & Urban Greening	7 4	2 4	4.5 4	Taylor, TK Lindholst A.C.	

Continued on next page

Title	Year	Journal	Contracting – continued from previous page			Mean citations	Authors
			Scopus	Citations	WoS		
The changing nature of contracting and trust in public-private partnerships: The case of Victorian PPP prisons	2010	Abacus	4	3	3	3.5	English L., Baxter J.
Green public procurement: Analysis on the use of environmental criteria in contracts	2010	Review of European Community & International Environmental Law	3	3	3	3	Palmujoki, A., Parikka-Alhola, K., Ekroos, A.
Flexible build-operate-transfer contracts for road franchising under demand uncertainty	2012	Transportation Research Part B	3	3	3	3	Tan, ZJ., Yang, H.
Risk management in public procurement for innovation: the case of Nordic-Baltic Sea cities	2010	Innovation: The European Journal of Social Science Research	4	2	2	3	Kalvet, T., Lember, V.
Breaking Down the Silos: Lessons Learned From the Expansion of Performance-Based Contracting to Residential Treatment Services in Illinois	2012	Journal of Public Child Welfare	3	3	3	3	Kearney K.A., Bloom-Ellis B., Thompson R.
Government concession contracts in Chile: The role of competition in the bidding process	2004	Economic Development and Cultural Change	1	2	1.5	1.5	Paredes, RD., Sanchez, JM

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Contracting – continued from previous page						
Title	Year	Journal	Citations	WoS	Mean citations	Authors
			Scopus	2	1.5	Zaidi S., Mayhew S.H., Palmer N.
Bureaucrats as purchasers of health services: Limitations of the public sector for contracting	2011	Public Administration and Development				
The implication of open contract to emergency planning	2012	Disaster Prevention Management	1	1	1	Wang, J.-J.
Effectiveness of safety-based incentives in Public Private Partnerships: Evidence from the case of Spain	2012	Transportation Research Part A	1	1	1	Rangel, T., Vasallo, JM, Arenas, B
Public goods and the hold-up problem under asymmetric information	2012	Economics Letters	1	1	1	Schmitz, PW
Public procurement design: Lessons from the private sector	2012	International Journal of Industrial Organization	2	0	1	Tadelis, S
Shared services: An outline of key contractual issues	2010	Computer Law and Security Review: The International Journal of Technology and Practice	1	1	1	Turle M.
Government and the reverse-holdup problem	2007	Journal of Public Economic Theory	1	0	0.5	Wickelgren, A.L.
Government contracting options: A model and application	1999	Defence and Peace Economics	1	0	0.5	Keating, EG

Continued on next page

Title	Year	Journal	Contracting – continued from previous page			Mean citations	Authors
			Scopus	Citations	WoS		
Reforming social services in Hong Kong: The role of contracting and performance management in the non-profit sector	2008	Australian Journal of Public Administration	0	0	0	0	Wong, H.K.
How Hollow Can We Go? A Case Study of the Florida's Efforts to Outsource Oversight of Privatized Child Welfare Services	2012	The American Review of Public Administration	0	0	0	0	Yang, KF, Van-Landingham, G
Good Rules or bad rules in public procurement of innovation: But is it really the (right) question?	2012	Halduskultur - Administrative Culture	-	0	-	0	Rolfstam M.
Allocation of control rights and cooperation efficiency in public-private partnerships: theory and evidence from the Chinese pharmaceutical industry	2009	International Journal Of Health Care Finance & Economics	0	0	0	0	Zhang, Z, Jia, M, Wan, DF
Contractual uncertainty, power and public contracting	2005	Journal of Public Policy	0	0	0	0	Lonsdale C.
Sharing Contracts Contracting: The Queensland Housing Commission experience, 1945-1957	2012	Australian Economic Papers	0	0	0	0	Dalen, DM, Moen, ER Hollander, R

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Contracting – continued from previous page						
Title	Year	Journal	Citations	WoS	Mean citations	Authors
			Scopus	Scopus	0	Demirag, I, Khadaroo, I, Stapleton, P, Stevenson, C Le Y.
The diffusion of risks in public private partnership contracts	2012	Accounting Audit- ing & Accountabil- ity Journal	0	0	0	
Purchasing public services: The contract-oriented model for cooperation between government and civil organizations - The case of shanghai dapuqiao community culture services center	2009	The China Non- profit Review	0	0	0	
Managerial challenges in public service contracting: Lessons in green-space management	2011	Public Administra- tion	0	0	0	Lindholst A.C., Bogetoft P.

### C.15.5 Legal aspects

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Making the market work for the environment: Acceptance of (some) 'green' contract award criteria in public procurement	2003	Journal of Environmental Law	11	11	9.5	Gordon H., Rimmer S., Arrowsmith S.
The economic impact of the European Union regime on public procurement:	1998	World Economy	8	11	9.5	Bolton P.
Lessons for the WTO Protecting the environment through public procurement: The case of South Africa	2008	Natural Resources Forum	11	7	9	
Public procurement directives in the European union: A study of local authority purchasing	1999	Public Administration	9	7	8	Martin S., Hartley K., Cox A.
Full disclosure of tender evaluation models: Background and application in Portuguese public procurement	2010	Journal of Purchasing and Supply Management	6	5	5.5	Mateus, R, Ferreira, JA, Carreira, J
Privatization, public goods, and the ironic challenge of free trade agreements	2007	Administration & Society	5	6	5.5	Gerbasi, J, Warner, ME

Continued on next page

Title	Year	Journal	Legal aspects – continued from previous page				Authors
			Citations	Scopus	WoS	Mean citations	
Public-private partnerships in Slovenia: Recent developments and perspectives	2010	Review Of Central And European Law	5	5	5	5	Ticar B., Zajc K.
Developing public procurement regulation: Jurisprudence and its influence on law making	2006	Common Market Law review	6	2	2	4	Bovis, CH
Contract compliance: sub-national and European influences in Northern Ireland	2002	Journal of European Social Policy	3	3	3	3	Fee, R
Public-Private Partnerships Law, economics, and the reinvention of public administration: Using relational agreements to reduce the cost of procurement regulation and other forms of government intervention in the economy	2010	The American Journal of Comparative Law Administrative Law Review	1	5	5	3	Custos, D, Reitz, J Kovacic, WE
Public functions and private services: A gap in human rights protection	2008	International Journal of Constitutional Law	2	2	2	2	Palmer, S.
The transformation of transparency - On the act on public procurement and the right to appeal in the context of the war on corruption	2007	Journal of Business Ethics	2	2	2	2	Lennertors T.T.

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Title	Year	Journal	Legal aspects – continued from previous page				Mean citations	Authors
			Scopus	Citations	WoS	citations		
Effects of the law reforming public works contracts on the Italian building process	2000	Building & Information Research	2	1	1	1.5	Bologna, R, Dell'Nord, R	
Corruption and public procurement: Example from Croatia	2010	Journal of Balkan and Near Eastern Studies	3	0	0	1.5	Ateljevic J., Budak J.	
Evidence from public procurement in Bulgaria Contracting out: Dutch municipalities reject the solution for the VAT distortion	2011	Public Management Review	1	1	1	1	Pashov, K.V.	
Green public procurement in practice - The case of Norway	2010	Local Government Studies	1	1	1	1	Wassenaar M.C., Dijkgraaf E., Gradus R.H.J.M. Fet A., Michelsen O., Boer L. Heifetz, KR	
Striking a balance between government efficiency and fairness to contractors: Past performance evaluations in government contracts	1998	Society and Economy	1	1	1	1	Tadelis, S	
Public procurement design: Lessons from the private sector	2012	International Journal of Industrial Organization Building Research & Information	2	0	0	1	Tadelis, S	
How does Government Procurement Law affect bidding price competition in Taiwan?	2004		1	0	0	0.5	Peng, YH, Chang, CL	

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Title	Legal aspects – continued from previous page				Mean citations	Authors
	Year	Journal	Citations	WoS		
	2011	World Trade Review	Scopus	0	0	Shingal, A
Services procurement under the WTO's Agreement on Government Procurement: whether market access? Stabilization and Association Agreements (SAAs), and Europe Agreements, and public procurement	2010	Atlantic Economic Journal	0	0	0	Mardas D.
A reflection on the Dutch Sustainable Public Procurement Programme and the EU Enlargement and the Emboldening of Institutional Integrity in Central and Eastern Europe: The 'Tough Test' of Public Procurement	2012	Journal of Integrative Environmental Sciences	0	0	0	Melissen, F, Reinders, H
Bypassing public procurement regulation: A study of rationality in local decision making	2011	Regulation & Governance	0	0	0	Hansson L., Holmgren J.

### C.15.6 Procurement strategy

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
The allocation of risk in PPP/PFI construction projects in the UK	2005	International Journal of Project Management	135	135	135	Bing L., Akintoye A., Edwards P.J., Hardcastle C., Hefetz, A., Warner, M
Privatization and its reverse: Explaining the dynamics of the government contracting process	2004	Journal of Public Administration Research and Theory	117	99	108	
The mythology of privatization in contracting for social services	2003	Public Administration Review	115	92	103.5	Van Slyke, DM
Contracting out by the public sector: theory, evidence, prospects	1997	Oxford Review of Economic Policy	111	94	102.5	Domberger S., Jensen P.
Agents or stewards: Using theory to understand the government-nonprofit social service contracting relationship	2007	Journal of Public Administration Research and Theory	100	90	95	Van Slyke, DM
Managing public service contracts: Aligning values, institutions, and markets	2006	Public Administration Review	84	67	75.5	Brown T.L., Pototski M., Van Slyke D.M. Edler J., Georghiou L.
Public procurement and innovation - Resurrecting the demand side	2007	Research Policy	85	61	73	

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Title	Year	Journal	Citations				Mean	Authors
			Scopus	Citations	WoS	citations		
Public-private partnerships: from contested concepts to prevalent practice	2004	International Review of Administrative Sciences	76	57	66.5	Bovard, T		
Contract-management capacity in municipal and county governments	2003	Public Administration Review	68	61	64.5	Brown, TL, Potoki, M		
Relationship management in the management of PFI/PPP projects in the UK	2007	International Journal of Project Management	55		55	Smyth H., Edkins A.		
The formation of public-private partnerships: Lessons from nine transport infrastructure projects in the Netherlands	2005	Public Administration	65	42	53.5	Koppenjan, JFM		
Good project governance for proper risk allocation in public-private partnerships in Indonesia	2006	International Journal of Project Management	53		53	Abednego M.P., Ogunlana S.O.		
The challenging business of long-term public-private partnerships: Reflections on local experience	2006	Public Administration Review	55	47	51	Bloomfield, P		
Transaction costs, relational contracting and public private partnerships: A case study of UK defence	2003	Journal of Purchasing and Supply Management	51		51	Parker D.		

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Title	Year	Journal	Citations				Mean	Authors
			Scopus	WoS	Citations	Mean		
Developing new forms of partnership with the 'Market' in the procurement of public services	2006	Public Administration	55	44	49.5	49.5	Bovard T.	
An e-procurement system for governmental purchasing	2004	International Journal of Production Economics	56	36	46	46	Panayiotou, NA, Gayialis, SP, Tatsiopoulos, IP, Brudney, JL, Fernandez, S, Ryu, JE, Wright, DS, Warner M.E., Hefetz A.	
Exploring and explaining contracting out: Patterns among the American states	2005	Journal of Public Administration Research and Theory	49	43	46	46		
Managing markets for public service: The role of mixed public-private delivery of city services	2008	Public Administration Review	48	29	38.5	38.5		
Public-private partnerships and contract negotiations: An empirical study	2004	Construction Management and Economics	38	38	Ahadzi M., Bowles G.	38		
Using public procurement to achieve social outcomes	2004	Natural Resources Forum	47	27	37	37	McCradden C.	
Using bargaining-game theory for negotiating concession period for BOT-type contract	2007	Journal Of Construction Engineering And Management	28	30	29	29	Shen, LY, Bao, H, Wu, YZ, Lu, WS	
Exploring success factors for Taiwan's government electronic tendering system: behavioral perspectives from end users	2004	Government Information Quarterly	36	22	29	29	Chu, PY, Hsiao, N, Lee, FW, Chen, CW	

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**Procurement strategy – continued from previous page**

Title	Year	Journal	Citations	WoS citations	Mean	Authors
			Scopus	Scopus		
Preferred risk allocation in China's public-private partnership (PPP) projects Build-operate-transfer-type procurement in Asian megaprojects	2010	International Journal of Project Management Journal Of Construction Engineering And Management Technovation	34 20 36 36	24 20 36 19	29 28 27.5 27.5	Ke, YJ, Wang, SQ, Chan, APC, Lam, PTI Kumaraswamy, MM, Morris, DA Canayannis E.G., Popescu D.
Profiling a methodology for economic growth and convergence: Learning from the EU e-procurement experience for central and eastern European countries Performance-based contracting in social welfare programs Paving the way for public-private partnerships in infrastructure development Partnering on defense contracts	2005	The American Review of Public Administration Journal Of Construction Engineering And Management Journal Of Construction Engineering And Management The American Review of Public Administration	27 28 28 29	28 23 25.5 21	27.5 25.5 25 25	Heinrich, CJ, Choi, Y Zhang, XQ 'CR, Sheedy, WM Dicke, LA
Ensuring accountability in human services contracting - Can stewardship theory fill the bill? The economics of public-private partnerships	2002	Canadian Public Policy	27	23	25	de Bettignies, JE, Ross, TW Continued on next page

Title	Year	Journal	Citations				Mean	Authors
			Scopus	WoS	Citations	Mean		
E-government policy and practice: A theoretical and empirical exploration of public e-procurement	2008	Government Information Quarterly	30	19	24.5	Hardy C.A., Williams S.P.		
Addressing sustainable development through public procurement: The case of local government PPPs: The passage of time permits a sober reflection. The hurdle analysis. A self-evaluation tool for municipalities to identify, analyse and overcome hurdles to green procurement	2009	Supply Chain Management: An International Journal	28	18	23	Preuss L.		
Fostering sustainability through sourcing from small businesses: public sector perspectives	2008	Economic Affairs	23		23	Hodge G.A., Greve C. Gunther E., Scheibe L.		
Contracting for management: Assessing management capacity under alternative service delivery arrangements	2006	Corporate Social Responsibility and Environmental Management	22		22			
Survey and risk assessment of recent strategies Contracting out and accountability	2007	Journal of Cleaner Production	25	18	21.5	Walker, H., Preuss, L.		
Urban rail transit PPPs: Survey and risk assessment of recent strategies Contracting out and accountability	1997	Transport Policy	25	15	20	Phang S.-Y.		
		Australian Journal of Public Administration	21	19	20	Mulgan, R		

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Procurement strategy – continued from previous page						
Title	Year	Journal	Citations	Citations WoS	Mean citations	Authors
			Scopus	19	21	20
Incentives and the efficiency of public sector-outsourcing contracts	2005	Journal of Economic Surveys				Jensen, PH, Stonecash, RE
Towards an e-Government efficiency agenda: the impact of information and communication behaviour on e-Reverse auctions in public sector procurement	2007	European Journal Of Information Systems	26	13	19.5	Hackney, R, Jones, S, Losch, A
Procurement protocols for public-private partnered projects	2001	Journal Of Construction Engineering And Management	24	13	18.5	Zhang X.Q., Kumaraswamy M.M.
Sustainable procurement in practice: Lessons from local government	2007	Journal Of Environmental Planning And Management	21	15	18	Thomson, J, Jackson, T
Contracting for health services in a public health system: the New Zealand experience	2004	Health policy	19	16	17.5	Ashton, T, Cumming, J, McLean, J
Purchase-of-service contracting, voluntary organizations, and civil society – Dissecting the goose that lays the golden eggs?	1998	American Behavioral Scientist	18	17	17.5	Nowland- Foreman, G

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Title	Year	Journal	Citations			Mean	Authors
			Scopus	WoS	citations		
The practice of contracting in public private partnerships: Transaction costs and relational contracting in the Irish schools sector	2008	Public Administration	18	15		16.5	Reeves E.
Buying into our future: Sustainability initiatives in local government procurement	2007	Business Strategy and the Environment	16			16	Preuss L.
Developing priorities for greener state government purchasing: a California case study	2005	Journal Of Cleaner Production	19		13	16	Swanson, M, Weissman, A, Davis, G, Socolof, ML, Davis, K, Hurst C., Reeves E.
An economic analysis of Ireland's first public private partnership Experiences with greening suppliers. The Universitat Autònoma de Barcelona Governance of public-private partnerships: lessons learnt from an Australian case?	2004	International Journal of Public Sector Management	15			15	
Innovation on demand-Can public procurement drive market success of innovations?	2009	Research Policy	14		13	13.5	Aschhoff, B, Sofka, W

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			Scopus	WoS	citations		
The role of contract design in privatization of child welfare services: the Kansas experience	2004	Children and Youth Services Review	15	12	13.5	Unruh, JK, Hodgkin, D	
Comparative performance of PPPs and traditional procurement in Australia: Implications of private-public partnerships on the development of urban public transit infrastructure: The case of Vancouver, Canada	2010	Construction Management and Economics	13		13	Raisbeck P., Duffield C., Xu M., Siemiatycki M.	
Contract service firms in local authorities: Evolving geographies of activity Understanding the Innovation Impacts of Public Procurement	2006	Journal of Planning Education and Research	10	16	13		
Contracting-out health care services: a conceptual framework	1999	Regional Studies	15	10	12.5	Reimer, S	
Green procurement in Norway; a survey of practices at the municipal and county level	2009	European Planning Studies	16	9	12.5	Uyarra, E., Flanagan, K	
	1999	Health policy	15	9	12	Vining, AR, Globerman, S	
	2009	Journal of Environmental Management	13	11	12	Michelsen, O, de Boer, L	

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**Procurement strategy – continued from previous page**

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Auction procedures and competition in public services: The case of urban public transport in France and London	2009	Utilities Policy	16	8	12	Amara, M., Saussier, J.M., Varez Yvrande-Billon, A.
Contractual management in PPP projects: Evaluation of legal versus relational contracting for service delivery	2006	Journal of Professional Issues in Engineering Education and Practice	18	6	12	Edkins, A.J., Smyth H.J.
Getting the fundamentals wrong: woes of public-private partnerships in solid waste collection in three Ghanaian cities	2004	Public Administration and Development	14	9	11.5	Awortwi, N.
Making the market work for the environment: Acceptance of (some) 'green' contract award criteria in public procurement	2003	Journal of Environmental Law	11	11	Kunzlik, P.	
Traffic revenue risk management through Annuity Model of PPP road projects in India	2006	International Journal of Project Management	11		11	Boeing Singh L., Kalidindi S.N.
Cost efficiency in primary care contracting: a stochastic frontier cost function approach	2004	Health Economics	11	10	10.5	Puig-Junoy, J., Ortun, V.

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Title	Year	Journal	Citations			Mean	Authors
			Scopus	WoS	citations		
Centralized vs. decentralized procurement: Does dispersed information call for decentralized decision-making?	2000	International Journal of Industrial Organization	12	9	10.5	Ilican, O'Connor, SM, Oliver ML, van Asselt, H, van der Grijp, N, Oosterhuis, F	Vagstad, S
Contract governance and the Canadian public sector	2003	Industrial Relations	12	9	10.5	Ilican, O'Connor, SM, Oliver ML, van Asselt, H, van der Grijp, N, Oosterhuis, F	Vagstad, S
Greener public purchasing: opportunities for climate-friendly government procurement under WTO and EU rules	2006	Climate Policy	11	9	10	Lyon, TP	
Does dual sourcing lower procurement costs? Public-private partnerships? Development of long-term relationships in public procurement in Germany Rediscovering implementation: Public sector contracting and human services	2006	The Journal of Industrial Economics	10	10	10	Lyon, TP	
The role of nonprofit human service organizations in providing social services: A prefatory essay	2005	Journal of Purchasing and Supply Management	10	10	10	Essig M., Batran A.	
Rediscovering implementation: Administration in Social Work	2001	Australian Journal of Public Administration	9	11	10	Chalmers J., Davis G.	
The role of nonprofit human service organizations in providing social services: A prefatory essay	2004	Administrative Science Quarterly	5	14	9.5	Schmid, H	
Procurement methods for US infrastructure: Historical perspectives and recent trends	2002	Building Research & Information	13	6	9.5	Pietroforte, R, Miller, JB	

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Procurement strategy – continued from previous page							
Title	Year	Journal	Citations	Citations	Mean	Authors	
			Scopus	WoS	citations		
Environmental criteria in the public purchases above the EU threshold values by three Nordic countries: 2003 and 2005 Transaction costs in transport public-private partnerships: Comparing procurement procedures	2009	Ecological Economics	Eco-12	7	9.5	Nissinen A., Parikka-Alhola K., Rita H.	
The 'externalisation' of local public service delivery: Experience in Italy and Sweden Protecting the environment through public procurement: The case of South Africa Innovative practices in public procurement partnerships: The case of the United States Problems with contracting out government services: lessons from orderly services at SCGH Contracting and negotiation: Effective practices of successful human service contract managers	2010	Transport Reviews	11	7	9	Solhno A.S., de Santos P.G.	
	2010	International Journal of Public Policy	9		9	Argento D., Grossi G., Tagesson T., Collin S.-O., Bolton P.	
	2008	Natural Resources Forum	11	7	9		
	2005	Journal of Purchasing and Supply Management	9		9	Lawther W.C., Martin L.L.	
	2004	Industrial and Corporate Change	10	7	8.5	Boardman, AE, Hewitt, ES	
	1998	Public Administration Review	9	8	8.5	Gooden, V	

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Title	Year	Journal	Citations				Mean	Authors
			Scopus	WoS	Citations	Mean		
A life cycle approach to Green Public Procurement of building materials and elements: A case study on windows	2011	Energy	10	6	8	8	Tarantini, M., Loprieno, AD, Porta, PL	
Government Contracts and “Managing the Market”: Exploring the Costs of Strategic Management Responses to Weak Vendor Competition	2012	Administration & Society	9	7	8	8	Johnston, JM, Girth, AM	
Contracting-in management to strengthen publicly financed primary health services: The experience of Punjab, Pakistan	2009	Health policy	8	8	8	8	Loevinsohn, B., ul Haq, I., Couffignal, A., Pande, A.	
Contracting-out in public health and water services in Ghana	1998	International Journal of Public Sector Management	8	8	8	8	Larki G.A.	
Contracting capacity and perceived contracting performance: Nonlinear effects and the role of time	2009	Public Administration Review	8	8	8	8	Yang, K., Hsieh, J.Y., Li, T.S.	
Public procurement as an innovation policy tool: The role of institutions	2009	Science and Public Policy	8	8	8	8	Rolfstam M.	
Privatization morphs into ‘publicization’: Businesses look a lot like government	2003	Public Administration	7	8	7.5	7.5	Sellers, MP	

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			Scopus	WoS	Citations	Mean		
Impact of the market collapse on public-private partnership infrastructure projects	2011	Journal Of Construction Engineering And Management	8	6	7	Regan M., Smith J., Love P.E.D.		
An empirical analysis of the acceptance of e-procurement in the German public sector	2010	International Journal of Public Administration	7		7	Wirtz B., Lutje S., Schierz P.G.		
Enabling development of the transportation public-private partnership market in the United States	2010	Journal Of Construction Engineering And Management	9	5	7	Garvin M.J.		
Life cycle approach in the procurement process: The case of defence materiel	2006	The International Journal of Life Cycle Assessment	8	6	7	Hochschorner, E., Finnveden, G		
The Effectiveness of Non-profit Lead-Organization Networks for Social Service Delivery	2010	Nonprofit Management and Leadership		7	7	Chen, B., Graddy, EA		
The effects of administrative professionals on contracting out	2009	Governance	6	7	6.5	Bhatti Y., Olsen A.I., Pedersen L.H., Murphy, TJ		
The case for public-private partnerships in infrastructure	2008	Canadian Public Administration	8	5	6.5			
The challenges of contracting and accountability across the federal system: From ambulances to space shuttles	2004	The Journal of Federalism	8	5	6.5	Johnston, JM, Romzek, BS, Wood, CH		

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**Procurement strategy – continued from previous page**

Title	Year	Journal	Citations	Scopus	WoS	Mean citations	Authors
Procurement of design-build services: Two-phase selection for highway projects	2009	Journal of Public Child Welfare	7	6	6.5	Migliaccio G.C., Gibson G.E., O'Connor J.T.	
Legal issues associated with emergent actor roles in innovative U.K. procurement: Prime contracting case study	2006	Journal of Professional Issues in Engineering Education and Practice	9	4	6.5	Pryke S.D.	
Applying principles for outcomes-based contracting in a public health program.	2004	Journal of public health management and practice	7	6	6.5	Honore P.A., Simoes E.J., Moonesinghe R., Kirby H.C., Renner M., Rolfstam M., Phillips W., Bakker E., Rom, MC	
Public procurement of innovations, diffusion and endogenous institutions From welfare state to Opportunity, Inc.	2011	International Journal of Public Sector Management	6	6	6		
Public-private partnerships in welfare reform Outsourced services and 'imbalanced' supply markets	2006	European Management Journal	6	6	6	Walker H., Knight L., Harland C.M., Murray J.G., Rentell P.G., Geere D., Assar S., Boughzala I.	
Procurement as a shared service in English local government Empirical evaluation of public e-procurement platforms in France	2008	International Journal of Public Sector Management	6	6	6		
	2008	International Journal of Value Chain Management	6	6	6		

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Title	Year	Journal	Citations	WoS	Mean	Authors
			Scopus	Citations	citations	
Public-private partnerships Task interdependence and contractibility Is there a future for contracting in the Australian public sector?	2010	International Journal of Industrial Organization	6	6	6	Chen, BR, Chiu, YS
Public sector e-procurement: A study of benefits from e-markets in the local government sector	1998	Australian Journal of Public Administration	6	6	6	Davis G., Wood T.
The politics and administration of privatization: Contracting out for corrections management in the United States	2004	Policy Studies Journal	9	3	6	Nicholson-Crotty, S
Contracting in ten English local authorities: Preferences and practices	2000	International Journal of Public Sector Management	6	6	6	Johnson P., Darwin J., Dubberley J., Rangel, T; Galende, J
Innovation in public-private partnerships (PPPs): the Spanish case of highway concessions	2010	Public Money & Management	6	5	5.5	
Piloting public-private partnerships: Expensive lessons from Ireland's schools' sector	2007	Administration & Society	8	3	5.5	Reeves E., Ryan J.
Privatization, public goods, and the ironic challenge of free trade agreements	2007	Administration & Society	5	6	5.5	Gerbasi, J., Warner, ME

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**Procurement strategy – continued from previous page**

Title	Year	Journal	Citations	Scopus	WoS	Mean citations	Authors
A structure for government requirements in public-private partnerships	2001	Canadian Journal of Civil Engineering	4	5	5	5	Abdel-Aziz, AM, Russell, AD
Private operation with public supervision: evidence of hybrid modes of governance in prisons	2010	Public Choice	5	5	5	5	Cabral, S, Lazarini, SG, de Azevedo, PF
Suitability of procuring large public works by PPP in Hong Kong	2010	Engineering, Construction and Architectural Management	5	5	5	5	Cheung E., Chan A.P.C., Kajewski S.
The impact of the austalian government job network contracting on not-for-profit service providers	2007	Australian Journal of Public Administration	5	5	5	5	Rogers, C
Inter-organisational information systems as simulation: An empirical evaluation in light of the diffusion of innovation theory	2011	Int. J. of Business Information Systems	5	5	5	5	Vaidya K., Hyde M.
Economic culture and quasi-markets in local government: The case of contracting for social care	1997	Local Government Studies	3	7	5	5	Mackintosh, M
Reasons for implementing public private partnership projects: Perspective from Hongkong, Australian and British practitioners	2009	Journal of Property Investment & Finance	5	5	5	5	Cheung E., Chan A.P.C., Kajewski S.

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Title	Year	Journal	Citations	WoS	Mean	Authors
			Scopus	Citations	5	
The public sector's perspective on procuring public works projects - Comparing the views of practitioners in Hong Kong and Australia	2010	Journal of Civil Engineering and Management	6	4	5	Cheung E., Chan A.P.C., Kajewski S.
Complex management contracts: the case of customs administration in Mozambique	1999	Public Administration and Development	5	5	5	Hubbard, M., Delay, S., Devas, N
SHAPING THE PROVISION OF OUTSOURCED PUBLIC SERVICES Incentive Efficacy and Service Delivery	2009	Public Performance & Management Review	5	5	5	Marvel, MK, Marvel, HP
Long term risk sharing contracts as an approach to establish public-private partnerships for investment into next generation access networks	2010	Telecommunications Policy	5	5	5	Fredebeul-Krein, M., Knoben, W
Insourcing and outsourcing: The dynamics of privatization among U.S. Municipalities 2002-2007	2012	Journal of the American Planning Association	6	3	4.5	Warner M.E., Hefetz A.
Competing agendas in public procurement: an empirical analysis of opportunities and limits in the UK for SMEs	2011	Environment and Planning C: Government and Policy	6	3	4.5	Pickernell, D, Kay, A, Packham, G, Miller, C

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Title	Year	Journal	Citations				Mean	Authors
			Scopus	WoS	Citations	Mean		
Release the power of the public purse	2006	Energy Policy	5	4	4.5	Borg N., Blume Y., Thomas S., Irrek W., Fanning-Lund H., Lund P., Loader, K.		
Is local authority procurement 'lean'? An exploration to determine if 'lean' can provide a useful explanation of practice	2010	Journal of Purchasing and Supply Management	7	2	4.5			
Modeling offset policy in government procurement infrastructure procurement: Learning from private-public partnership experiences 'down under'	2003	Journal Of Policy Modeling	7	2	4.5	Taylor, TK		
Public-private partnerships in micro-finance: Should NGO involvement be restricted?	2011	Environment and Planning C: Government and Policy	4	4	4	Regan M., Smith J., Love P.E.D.		
Urban competitiveness and public procurement for innovation	2009	Journal of Development Economics	4	4	4	Roy, J., Chowdhury, PR		
Opening up Public Services to Competition by Putting Them Out to Tender: An Evaluation	2003	Annals of Public and Cooperative Economics	6	2	4	Lember V., Kalvet T., Kattel R.		
Public-private partnerships in the Netherlands: Policy, projects and lessons	2009	Economic Affairs	4	4	4	Bance P.		
						Klijn E.-H.		

Continued on next page

Title	Year	Journal	Citations			Mean	Authors
			Scopus	WoS	citations		
Contracting-out in urban green-space management: Instruments, approaches and arrangements	2009	Urban Forestry & Urban Greening	4	4	3	3.5	Ugboro I.O., Obeng K., Talley W.K.
Motivations and impediments to service contracting, consolidations, and strategic alliances in public transit organizations	2001	Administration & Society	4	4	3	3.5	Witt E., Liias R.
Comparing Risk Transfers under Different Procurement Arrangements	2011	International Journal Of Strategic Property Management	4	3	3.5	Ormsby, MJ	
The provider/purchaser split: A report from New Zealand	1998	Governance	5	2	3.5	Berrios, R	
Government contracts and contractor behavior	2006	Journal of Business Ethics	4	3	3.5	Nigenda G.H., Gonzalez L.M.	
Contracting private sector providers for public sector health services in Jalisco, Mexico: Perspectives of system actors	2009	Human resources for health	3	4	3.5	English L., Baxter J.	
The changing nature of contracting and trust in public-private partnerships: The case of Victorian PPP prisons	2010	Abacus	4	3	3.5	Continued on next page	

**Procurement strategy – continued from previous page**

Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
Eminent Domain versus Purchase of Land Given Imperfect Information about Owners' Valuations	2010	The Journal of Law and Economics	3	3	3	Shavell, S.
Early contractor involvement in Dutch infrastructure development: Initial experiences with parallel procedures for planning and procurement	2012	Journal of Public Procurement	3	3	3	Lenferink S., Arts J., Tillema T., van Valkenburg M., Nijsten R.
Demand-orientated policy on leading-edge industry and technology: Public procurement for innovation	2010	Int. J. of Technology Management	3	3	3	Myoken Y.
Market-Based Government and the Decline of Organizational Ethics	2010	Administration & Society	2	4	3	Adams, GB, Balfour, DL
Public libraries and the consortium purchase of electronic resources	2003	Electronic Library	5	1	3	Ball, D
Contracting out public service provision to not-for-profit firms	2010	Oxford Economic Papers	3	3	3	Bennett J., Iossa E.
Evaluation model for assessing the suitability of public-private partnership projects	2011	Journal of Management in Engineering	4	2	3	Cheung E., Chan A.P.C.

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Title	Year	Journal	Citations			Mean	Authors
			Scopus	WoS	citations		
Developing an analytical framework for analysing and assessing public-private partnerships: A hospital case study	2009	The Economic and Labour Relations Review	3	3	3	3	Chung D.
E-Government procurement observatory, maturity model and early measurements	2012	Government Information Quarterly	4	2	3	Concha, G., Astudillo, H., Porrua, M., Pimenta, C., Custos, D., Reitz, J.	
Public-Private Partnerships	2010	The American Journal of Comparative Law	3	3	3		
Contracting out and trust in the public sector: Cases of management from Hong Kong	2005	Public Organization Review	3	3	3	Huque A.S.	
A study of e-market adoption barriers in the local government sector	2012	Journal of Enterprise Information Management	3	3	3		
Outsourcing Public Service Delivery: Management Responses in Noncompetitive Markets	2012	Public Administration Review	3	3	3	Girth, AM., Hefetz, A., Johnston, JM., Warner, ME., Rosnick, M.	
Building public health goals into the purchasing process: Managed care perspective	1998	American Journal of Preventive Medicine	3	3	3		

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Procurement strategy – continued from previous page						
Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
Sustainable partnerships for a green economy: A case study of public procurement for home-grown school feeding	2011	Natural Resources Forum	3	3	3	Otsuki K.
Green public procurement: Analysis on the use of environmental criteria in contracts	2010	Review of European Community & International Environmental Law	3	3	3	Palmujoki, A, Parikka-Alhola, K, Ekroos, A
Flexible build-operate-transfer contracts for road franchising under demand uncertainty	2012	Transportation Research Part B	3	3	3	Tan, ZJ, Yang, H
Risk management in public procurement for innovation: the case of Nordic-Baltic Sea cities	2010	Innovation: The European Journal of Social Science Research	4	2	3	Kalvret, T, Lember, V
Breaking Down the Silos: Lessons Learned From the Expansion of Performance-Based Contracting to Residential Treatment Services in Illinois	2012	Journal of Public Child Welfare	3	3	3	Kearney K.A., Bloom-Ellis B., Thompson R
The new public management of security: the contracting and managerial state and the private military industry	2010	Public Money & Management	3	2	2.5	Ortiz, C.

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Title	Year	Journal	Citations from previous page				Authors
			Scopus	Citations	WoS	Mean citations	
			2	3	2.5	2.5	Park, SJ
Contracting out in Korean local governments: current situation and challenges ahead	2004	International Review of Administrative Sciences					
Psychological barriers in the road to sustainable development: Evidence from public sector procurement	2011	Business Strategy and the Environment	3	2	2	2.5	Preuss L., Walker H.
An institutional approach to research on public procurement of innovation	2012	Innovation: The European Journal of Social Science Research	2	3	2.5	2.5	Rolfstam, M
The relationship between sustainable procurement and e-procurement in the public sector	2012	International Journal of Production Economics	3	2	2	2.5	Walker H., Brammer S.
Public-private partnership and regional productivity in the UK	2011	The Service Industries Journal	3	2	2	2.5	Navarro-Espigares J.L., Martin-Segura J.A., Karjalainen, K
Estimating the cost effects of purchasing centralization-Empirical evidence from framework agreements in the public sector	2011	Journal of Purchasing and Supply Management	3	2	2	2.5	
Public Procurement for Innovation as mission-oriented innovation policy	2012	Research Policy	3	2	2	2.5	Edquist, C; Zabala-Iturriagagoitia, JM

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Procurement strategy – continued from previous page						
Title	Year	Journal	Citations	WoS	Mean	Authors
			Scopus	Scopus	citations	
Private-Public Partnerships as Strategic Alliances Concession Contracts for Port Infrastructures	2008	Transportation Research Record	3	2	2.5	Juan, C, Olmos, F, Johnston, JM, Ashkeboussi, R
Satisfaction of contract provider agencies with a State's Child Welfare Agency	2006	Children and Youth Services Review	4	1	2.5	Barton, WH, Folaron, GLamothe, M, Busch, M, Hostetter, C Palmer, S.
Public functions and private services: A gap in human rights protection	2008	International Journal of Constitutional Law	2	2	2	Vassallo, JM
The role of the discount rate in tendering highway concessions under the LPVR approach	2010	Transportation Research Part A	2	2	2	
Public-private agreements, institutions, and competition: When economic theory meets facts	2009	Review of Industrial Organization	4	0	2	Sauzier, S., Staropoli, C., Yvrande-Billon A.
Barriers to addressing sustainable construction in public procurement strategies	2011	Proceedings of the Institution of Civil Engineers: Engineering Sustainability	3	1	2	Sourani, A, Sohail, M
Public procurement incentives for sustainable design services: Swedish experiences	2009	Architectural engineering and design management	2	2	2	Sporrong, J., Brochner J.

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Procurement strategy – continued from previous page						
Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
Developing Key Indicators for Public-Private Partnership Projects: Questionnaire Survey and Analysis	2012	Journal of Management in Engineering	3	1	2	Bayley M.
Channel Tunnel Rail Link: Financing and risk transfer E-procurement: Myth or reality?	2003	Civil Engineering	3	1	2	McCue C., Ro-man A.V. Fenwick, P., Jes-sett, C., Ding-wall, D., Hailey, N
Promoting, developing and procuring the New Tyne Crossing	2012	Journal of Public Procurement Transport	2	2	2	Alvarez J.M., Labra J.E., Cifuentes F., Alor-Hernandez G., Sanchez C., Luna J.A.G.
Towards a pan-european e-procurement platform to aggregate, publish and search public procurement notices powered by linked open data: The moldreas approach	2012	International Journal of Software Engineering and Knowledge Engineering	3	1	2	Cabras I.
Use of E-procurement in local authorities' purchasing and its effects on local economies: Evidence from Cumbria, UK	2010	European Planning Studies	2	2	2	Cabras I.

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**Procurement strategy – continued from previous page**

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Institutional sources of distrust in government contracting: A comparison between home-based and residential social services in Spain	2009	Public Management Review	2	1	1.5	Al-Abbadia, I., Qawwas, A., Jaafreh, M., Abosamen, T., Saz-Carranza A., Serra A.
One-Year assessment of joint procurement of pharmaceuticals in the public health sector in Jordan	2009	Clinical Therapeutics	2	1	1.5	
Simultaneous public and private provision of services, asymmetric information and innovation	2003	International Tax and Public Finance	1	2	1.5	Saket M. Boardway, R., Marchand, M., Tremblay, J.F.
Bureaucrats as purchasers of health services: Limitations of the public sector for contracting	2011	Public Administration and Development	2	1	1.5	Zaidi S., Mayhew S.H., Palmer N.
Public-private partnerships: A Canadian hospital's perspective	2007	Healthcare management Forum	1	1	1	Philpott T.G.
Best value concessionaire selection through a fuzzy logic system	2009	Expert Systems with Applications	1	1	1	Zhang, XQ
State and Local Government Procurement and the Winter Commission	2008	Public Administration Review	2	0	1	Potoski, M

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Title	Year	Journal	Citations	Citations Scopus	Citations WoS	Mean citations	Authors
What factors influence the uptake of GPP (green public procurement) practices? New evidence from an Italian survey	2012	Ecological Economics	1	1	1	1	Testa F., Traldo F., Frey M., Daddi T.
Development and Distortion of Malaysian Public-Private Partnerships - Patronage, Privatised Profits and Pitfalls	2010	Australian Journal of Public Administration	2	0	0	1	Beh, LS
Procurement for sustainable local economic development	2012	International Journal of Public Sector Management	1	1	1	1	Nijaki L.K., Worrel G.
Value for money analysis in U.S. transportation public-private partnerships	2009	Transportation Research Record	1	1	1	1	Morallos D., Amekudzi A., Ross C., Meyer M.
An integrated approach in healthcare e-procurement: The case-study of the ASL of Viterbo	2005	Lecture Notes in Artificial Intelligence	1	1	1	1	Federici, T
Sustainability and local food procurement: a case study of Finnish public catering	2012	Food Journal	2	0	0	1	Lehtinen, U
Public-private partnerships in the 21st century	2010	ERA Forum	1	1	1	1	Bovis C.

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Procurement strategy – continued from previous page						
Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Government Supports in Public-Private Partnership Contracts: Metro Line 4 of the Sao Paulo Subway System	2012	Journal of Infrastructure Systems	1	1	1	Brandao, LE, Bastian-Pinto, C, Gomes, LL, Labes, M
Green public procurement in practice - The case of Norway Emergency contracting strategies for federal projects	2011	Society and Economy	1	1	1	Fet, A., Michelsen O., Boer L. Jeffrey, JT, Menches, CL
The impact of sustainable public procurement on supplier management - The case of French public hospitals	2012	Industrial Marketing Management	2	0	1	Oruezabala G., Rico J.-C.
Effectiveness of safety-based incentives in Public Private Partnerships: Evidence from the case of Spain	2012	Transportation Research Part A	1	1	1	Rangel, T, Vasallo, JM, Arenas, B
Shared services: An outline of key contractual issues	2010	Computer Law and Security Review: The International Journal of Technology and Practice	1	1	1	Turle M.

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**Procurement strategy – continued from previous page**

Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
Harnessing market competition in PPP procurement: The importance of periodically taking a strategic view	2010	Australian Journal of Public Administration	1	0	0.5	Choi Y.-C.
The Politics of Transaction Costs	1999	Public Money & Management	1	0	0.5	da Cruz, NF, Marques, RC
Delivering Local Infrastructure through PPPs: Evidence from the School Sector	2012	Journal Of Construction Engineering And Management	1	0	0.5	Diggs S.N., Roman A.V.
Understanding and tracing accountability in the public procurement process: Interpretations, performance measurements, and the possibility of developing public-private partnerships	2012	Public Performance & Management Review	0	1	0.5	Koontz, TM, Thomas, CW
Measuring the performance of public-private partnerships A Systematic Method for Distinguishing Outputs from Outcomes	2012	Public Performance & Management Review	1	0	0.5	Nasr, EB
Cost performance comparison of two public sector project procurement techniques	2007	Journal of Management in Engineering	1	0	0.5	Kupremas, JA,

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Procurement strategy – continued from previous page						
Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
Initial success and substantial government savings may mandate prime vendor contracts for table of organization and equipment units and deployment support	1997	Military Medicine	0	0	0	Rembold, JM, Berry, TR
Public finance expenditure and awarding work to external contractors - Case of Slovenia	2011	Journal of Applied Business Research	0	0	0	Setnikar-Cankar S., Seljak J., Petkovsek V.
Innovation procurement as projects	2012	Journal of Public Procurement	0	0	0	Yeow J., Edler J.
Environmental impacts and the most economically advantageous tender in public procurement	2012	Journal of Public Procurement	0	0	0	Parikka-Alhola K., Nissinen A.
Lean thinking within public sector purchasing department: The case of the U.K public service	2012	Journal of Public Procurement	0	0	0	Waterman J., McCue C.
Sustainable procurement in health and social care in Northern Ireland	2012	Public Money & Management	0	0	0	Erridge A., Hennigan S.
Purchase-of-service contracting in Estonia	2010	Halduskultuur - Administrative Culture	-	0	0	Lember V., Kriz K.A.
A reflection on the Dutch Sustainable Public Procurement Programme	2012	Journal of Integrative Environmental Sciences	0	0	0	Melissen, F., Reinders, H

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**Procurement strategy – continued from previous page**

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Evaluating the anti-corruption capabilities of public eprocurement in a developing country	2012	The Electronic Journal on Information Systems in Developing Countries	0	0	0	Neupane A., Soar J., Vaidya K.
The Northern Line train service contract	2000	Proceedings of the Institution of Mechanical Engineers Part F: Journal of Rail and Rapid Transit	0	0	0	Harding, Watts, P
Let's stick together: Collaborative purchasing of electronic journals in the National Health Service Contracting out at local government level in Slovakia and the Czech Republic	2008	Health Information & Libraries Journal	0	0	0	Marriott R.
Cost impact of purchasing pharmaceuticals jointly in the public health sector in Jordan After Katrina: Comparisons of post-disaster public procurement approaches and outcomes in the New Orleans area	2007	Public Management Review	0	0	0	Nemec J., Menickova B., Sumpikova M.F. Alabbadi I.
	2011	Jordan Journal of Pharmaceutical Sciences	0	0	0	
	2012	Journal of Public Procurement	0	0	0	Atkinson C.L., Sapat A.K.

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**Procurement strategy – continued from previous page**

Title	Year	Journal	Citations	WoS	Mean	Authors
			Scopus	Citations	Mean	
Comparison of Public-Private Partnerships and Traditional Procurement Methods in North American Highway Construction	2012	Transportation Research Record: Journal of the Transportation Research Board Structural Survey	0	0	0	Chasey, AD, Maddex, WE, Bansal, A
The researcher's perspective on procuring public works projects	2010		0	0	0	Cheung E., Chan A.P.C., Kajewski S., Eriksson, M., Pettersson, T
Adapting to liberalization: government procurement of interregional passenger transports in Sweden, 1989-2008	2012	Journal of Transport Geography	0	0	0	
Contract Management Capacity Breakdown? An Analysis of U.S. Local Governments	2012	Public Administration Review	0	0	0	Joaquin, ME, Greitens, TJ
The Neoliberal Transformation of Local Government in Turkey and the Contracting Out of Municipal Services: Implications for Public Accountability	2012	Mediterranean Politics	0	0	0	Kadirbeyoglu, Z, Sumer, B
Delivery of Public Services by Non-Government Organisations To Trust or Not to Trust? What Matters in Local Government-Vendor Relationships?	2012	Australian Journal of Public Administration Journal of Public Administration Research and Theory	0	0	0	Housego, A, O'Brien, T Lamothe, M, Lamothe, S

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Title	Year	Journal	Citations				Mean	Authors
			Scopus	WoS	Citations	Mean		
Reforming social services in Hong Kong: The role of contracting and performance management in the non-profit sector	2008	Australian Journal of Public Administration	0	0	0	0	0	Yang, KF, Van-Landingham, G
How Hollow Can We Go? A Case Study of the Florida's Efforts to Outsource Oversight of Privatized Child Welfare Services	2012	The American Review of Public Administration	0	0	0	0	0	Rolfstam M.
Good Rules or bad rules in public procurement of innovation: But is it really the (right) question? Contracting: The Queensland Housing Commission experience, 1945-1957 The diffusion of risks in public private partnership contracts	2012	Halduskultur - Administrative Culture	-	0	0	0	0	Hollander, R
Purchasing public services: The contract-oriented model for cooperation between government and civil organizations - The case of Shanghai Dapuqiao community culture services center	2009	The China Non-profit Review	0	0	0	0	0	Demirag, I, Khadaroo, I, Stapleton, P, Stevenson, C Le Y.

Procurement strategy – continued from previous page						
Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
Managerial challenges in public service contracting: Lessons in green-space management	2011	Public Administration	0	0	0	Lindholt A.C., Bogetoft P.

### C.15.7 Procurement strategy: PPP

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
The allocation of risk in PPP/PFI construction projects in the UK	2005	International Journal of Project Management	135	135	66.5	Bing L., Akintoye A., Edwards P.J., Hardcastle C., Bovard, T.
Public-private partnerships: from contested concepts to prevalent practice	2004	International Review of Administrative Sciences International Journal of Project Management	76	57	55	Smyth H., Edkins A.
Relationship management in the management of PFI/PPP projects in the UK	2007	Public Administration	65	42	53.5	Koppenjan, JFM
The formation of public-private partnerships: Lessons from nine transport infrastructure projects in the Netherlands	2005	International Journal of Project Management	53	53	Abednego M.P., Ogunlana S.O.	
Good project governance for proper risk allocation in public-private partnerships in Indonesia	2006	Public Administration Review	55	47	51	Bloomfield, P
The challenging business of long-term public-private partnerships: Reflections on local experience	2006					Continued on next page

Title	Year	Journal	Procurement strategy: PPP – continued from previous page			Mean citations	Authors
			Scopus	Citations	WoS		
Transaction costs, relational contracting and public private partnerships: A case study of UK defence Public-private partnerships and contract negotiations: An empirical study	2003	Journal of Purchasing and Supply Management	51	51	51	38	Ahadzi M., Bowles G.
Using bargaining-game theory for negotiating concession period for BOT-type contract	2004	Construction Management and Economics Journal Of Construction Engineering And Management	38	30	29	29	Shen, LY, Bao, H.J, Wu, YZ, Lu, WS
Preferred risk allocation in China's public-private partnership (PPP) projects Build-operate-transfer-type procurement in Asian megaprojects	2007	Journal Of Construction Engineering And Management International Journal of Project Management	28	34	24	29	Ke, YJ, Wang, SQ, Chan, APC, Lam, PTI Kumaraswamy, MM, Morris, DA
Paving the way for public-private partnerships in infrastructure development	2010	Journal Of Construction Engineering And Management	28	23	23	25.5	Zhang, XQ
The economics of public-private partnerships PPPs: The passage of time permits a sober reflection Urban rail transit PPPs: Survey and risk assessment of recent strategies	2002	Canadian Public Policy Economic Affairs Transport Policy	36	20	20	28	
	2004	Canadian Public Policy	27	22	22	24.5	de Bettignies, JE, Ross, TW Hodge G.A., Greve C. Phang S.-Y.
	2009	Economic Affairs	23			23	
	2007	Transport Policy	25	15	15	20	

Continued on next page

Title	Year	Journal	Procurement strategy: PPP – continued from previous page				Authors
			Citations	Scopus	WoS	Mean citations	
Procurement protocols for public-private partnered projects	2001	Journal Of Construction Engineering And Management	24	13	18.5	Zhang X.Q., Kumaraswamy M.M.	
The practice of contracting in public private partnerships: Transaction costs and relational contracting in the Irish schools sector An economic analysis of Ireland's first public private partnership Governance of public-private partnerships: lessons learnt from an Australian case? Comparative performance of PPPs and traditional procurement in australia Implications of private-public partnerships on the development of urban public transit infrastructure: The case of Vancouver, Canada Auction procedures and competition in public services: The case of urban public transport in France and London	2008	Public Administration	18	15	16.5	Reeves E.	
	2004	International Journal of Public Sector Management	15		15	Hurst C., Reeves E.	
	2007	International Review of Administrative Sciences	20	9	14.5	Johnston, J., Gudergan, SP	
	2010	Construction Management and Economics	13		13	Raisbeck P., Duffield C., Xu M. Siemiatycki M.	
	2006	Journal of Planning Education and Research	10	16	13		
	2009	Utilities Policy	16	8	12	Amaral, M., Saussier, S., Yvrande-Billon, A	

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Procurement strategy: PPP – continued from previous page						
Title	Year	Journal	Citations	Citations Scopus	Mean WoS citations	Authors
Contractual management in PPP projects: Evaluation of legal versus relational contracting for service delivery	2006	Journal of Professional Issues in Engineering Education and Practice	18	6	12	Edkins A.J., Smyth H.J.
Getting the fundamentals wrong: woes of public-private partnerships in solid waste collection in three Ghanaian cities	2004	Public Administration and Development	14	9	11.5	Awotwi, N.
Traffic revenue risk management through Annuity Model of PPP road projects in India	2006	International Journal of Project Management	11	11	Boeing Singh L., Kalidindi S.N.	
Public-private partnership: Development of long-term relationships in public procurement in Germany	2005	Journal of Purchasing and Supply Management	10	10	Essig M., Batran A.	
Procurement methods for US infrastructure: Historical perspectives and recent trends	2002	Building Research & Information	13	6	9.5	Pietroforte, R., Miller, JB
Transaction costs in transport public-private partnerships: Comparing procurement procedures	2010	Transport Reviews	11	7	9	Sollno A.S., de Santos P.G.
Impact of the market collapse on public-private partnership infrastructure projects	2011	Journal Of Construction Engineering And Management	8	6	7	Regan M., Smith J., Love P.E.D.

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Procurement strategy: PPP – continued from previous page						
Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
Enabling development of the transportation public-private partnership market in the United States	2010	Journal Of Construction Engineering And Management	9	5	7	Garvin M.J.
The case for public-private partnerships in infrastructure	2008	Canadian Public Administration	8	5	6.5	Murphy, T.J
Procurement of design-build services: Two-phase selection for highway projects	2009	Journal of Public Child Welfare	7	6	6.5	Migliaccio G.C., Gibson G.E., O'connor J.T.
From welfare state to Opportunity, Inc. Public-private partnerships in welfare reform	1999	American Behavioral Scientist	4	8	6	Rom, MC
Public-private partnerships Task interdependence and contractibility	2010	International Journal of Industrial Organization	6	6	6	Chen, BR, Chiu, YS
Innovation in public-private partnerships (PPPs): the Spanish case of highway concessions	2010	Public Money & Management	6	5	5.5	Rangel, T; Galende, J
Piloting public-private partnerships: Expensive lessons from Ireland's schools' sector	2007	Public Money & Management	8	3	5.5	Reeves E., Ryan J.
A structure for government requirements in public-private partnerships	2001	Canadian Journal of Civil Engineering	4	6	5	Abdel-Aziz, AM, Russell, AD

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Procurement strategy: PPP – continued from previous page						
Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Suitability of procuring large public works by PPP in Hong Kong	2010	Engineering, Construction and Architectural Management	5	5	5	Cheung E., Chan A.P.C., Kajewski S.
Reasons for implementing public private partnership projects: Perspective from Hongkong, Australian and British practitioners	2009	Journal of Property Investment & Finance	5	5	5	Cheung E., Chan A.P.C., Kajewski S.
The public sector's perspective on procuring public works projects - Comparing the views of practitioners in Hong Kong and Australia	2010	Journal of Civil Engineering and Management	6	4	5	Cheung E., Chan A.P.C., Kajewski S.
Long term risk sharing contracts as an approach to establish public-private partnerships for investment into next generation access networks	2010	Telecommunications Policy	5	5	5	Fredebeul-Krein, M., Knoben, W
Infrastructure procurement: Learning from private-public partnership experiences 'down under'	2011	Environment and Planning C: Government and Policy	4	4	4	Regan M., Smith J., Love P.
Public-private partnerships in micro-finance: Should NGO involvement be restricted?	2009	Journal of Development Economics	4	4	4	Roy, J, Chowdhury, PR

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Title	Year	Journal	Procurement strategy: PPP – continued from previous page			Authors
			Scopus	Citations WoS	Mean citations	
Public-private partnerships in the netherlands: Policy, projects and lessons	2009	Economic Affairs	4	3	3.5	Witt E., Liias R.
Comparing Risk Transfers under Different Procurement Arrangements	2011	International Journal Of Strategic Property Management	4	3	3	Klijn E.-H.
The changing nature of contracting and trust in public-private partnerships: The case of Victorian PPP prisons	2010	Abacus	4	3	3.5	English L., Baxter J.
Evaluation model for assessing the suitability of public-private partnership projects	2011	Journal of Management in Engineering	4	2	3	Cheung E., Chan A.P.C.
Developing an analytical framework for analysing and assessing public-private partnerships: A hospital case study	2009	The Economic and Labour Relations Review	3	3	3	Chung D.
Public-Private Partnerships	2010	The American Journal of Comparative Law	3	3	3	Custos, D, Reitz, J
Flexible build-operate-transfer contracts for road franchising under demand uncertainty	2012	Transportation Research Part B	3	3	3	Tan, ZJ, Yang, H

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Procurement strategy: PPP – continued from previous page						
Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Breaking Down the Silos: Lessons Learned From the Expansion of Performance-Based Contracting to Residential Treatment Services in Illinois	2012	Journal of Public Child Welfare	3	2	2.5	Navarro-Espigares J.L., Martin-Segura J.A.
Public-private partnership and regional productivity in the UK	2011	The Service Industries Journal	3	2	2.5	Juan, C, Olmos, F, Ashkeboussi, R
Private-Public Partnerships as Strategic Alliances Concession Contracts for Port Infrastructures	2008	Transportation Research Record	3	2	2.5	Saussier S., Staropoli C., Yvrande-Billon A.
Public-private agreements, institutions, and competition: When economic theory meets facts	2009	Review of Industrial Organization	4	0	2	Yuan, JF, Wang, C, Skibniewski, MJ, Li, QM
Developing Key Performance Indicators for Public-Private Partnership Projects: Questionnaire Survey and Analysis	2012	Journal of Management in Engineering	3	1	2	
Channel Tunnel Rail Link: Financing and risk transfer Promoting, developing and procuring the New Tyne Crossing	2003 2011	ICE Civil Engineering Transport	3 2	1 2	2 2	Bayley M. Fenwick, P, Jessett, C, Dingwall, D, Hailey, N

Continued on next page

Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
Public-private partnerships: A Canadian hospital's perspective	2007	Healthcare management Forum	1	1	1	Philpott T.G.
Best value concessionaire selection through a fuzzy logic system	2009	Expert Systems with Applications	1	1	1	Zhang, XQ
Development and Distortion of Malaysian Public-Private Partnerships - Patronage, Privatised Profits and Pitfalls	2010	Australian Journal of Public Administration	2	0	1	Beh, LS
Value for money analysis in U.S. transportation public-private partnerships	2009	Transportation Research Record	1	1	1	Morallos D., Amekudzi A., Ross C., Meyer M. Bovis C.
Public-private partnerships in the 21st century Government Supports in Public-Private Partnership Contracts: Metro Line 4 of the Sao Paulo Subway System	2010	ERA Forum	1	1	1	Brandao, LE, Bastian-Pinto, C, Gomes, LL, Labes, M
Effectiveness of safety-based incentives in Public-Private Partnerships: Evidence from the case of Spain	2012	Transportation Research Part A	1	1	1	Rangel, T, Vasallo, JM, Arenas, B

Continued on next page

Title	Year	Journal	Procurement strategy: PPP – continued from previous page				Authors
			Citations	Scopus	WoS	Mean citations	
Harnessing market competition in PPP procurement: The importance of periodically taking a strategic view Delivering Local Infrastructure through PPPs: Evidence from the School Sector	2010	Australian Journal of Public Administration	1	0	0	0.5	da Cruz, NF, Marques, RC
Understanding and tracing accountability in the public procurement process: Interpretations, performance measurements, and the possibility of developing public-private partnerships	2012	Journal Of Construction Engineering And Management	1	0	0	0.5	Diggs S.N., Roman A.V.
Measuring the performance of public-private partnerships A Systematic Method for Distinguishing Outputs from Outcomes	2012	Public Performance & Management Review	0	1	1	0.5	Koontz, TM, Thomas, CW
Cost performance comparison of two public sector project procurement techniques	2007	Journal of Management in Engineering	1	0	0	0.5	Kuprenas, JA, Nasr, EB

Continued on next page

Procurement strategy: PPP – continued from previous page		Year	Journal	Citations	Citations	Mean	Authors
Title				Scopus	WoS	citations	
The Northern Line train service contract	2000	Proceedings of the Institution of Mechanical Engineers Part F: Journal of Rail and Rapid Transit	0	0	0	0	Chasey, AD, Maddex, WE, Bansal, A
Comparison of Public-Private Partnerships and Traditional Procurement Methods in North American Highway Construction	2012	Transportation Research Record: Journal of the Transportation Research Board Structural Survey	0	0	0	0	Cheung E., Chan A.P.C., Kajewski S.
The researcher's perspective on procuring public works projects	2010	0	0	0	0	0	Demirag, I, Khadaroo, I, Stapleton, P, Stevenson, C Le Y.
The diffusion of risks in public private partnership contracts	2012	Accounting Auditing & Accountability Journal	0	0	0	0	
Purchasing public services: The contract-oriented model for cooperation between government and civil organizations - The case of shanghai dapuqiao community culture services center	2009	The China Non-profit Review	0	0	0	0	

### C.15.8 Procurement strategy: Innovation procurement

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Public procurement and innovation-Resurrecting the demand side Innovation on demand-Can public procurement drive market success of innovations?	2007	Research Policy	85	61	73	Edler J., Georgiou L., Aschhoff, B., Sofka, W
Understanding the Innovation Impacts of Public Procurement	2010	European Planning Studies	16	9	12.5	Uyarra, E., Flanagan, K
Public procurement as an innovation policy tool: The role of institutions	2009	Science and Public Policy	8	8	8	Rolfstam M.
Public procurement of innovations, diffusion and endogenous institutions	2011	International Journal of Public Sector Management	6	6	6	Rolfstam M., Phillips W., Bakker E., Lember V., Kalvet T., Kattel R.
Urban competitiveness and public procurement for innovation	2011	Urban Studies	6	2	4	
Demand-orientated policy on leading-edge industry and technology: Public procurement for innovation	2010	Int. J. of Technology Management	3	3	3	Myoken Y.
Risk management in public procurement for innovation: the case of Nordic-Baltic Sea cities	2010	Innovation: The European Journal of Social Science Research	4	2	3	Kalvet, T, Lember, V

Continued on next page

Procurement strategy: Innovation procurement – continued from previous page						
Title	Year	Journal	Citations	Scopus	WoS	Mean citations Authors
An institutional approach to research on public procurement of innovation	2012	Innovation: European Journal of Social Science Research Policy	The 2	2	3	2.5 Rolfstam, M
Public Procurement for Innovation as mission-oriented innovation policy	2012		3	2	2	2.5 Edquist, C; Zabala- Iturriagagoitia, JM Yeow J., Edler J.
Innovation procurement as projects Good Rules or bad rules in public procurement of innovation: But is it really the (right) question?	2012	Journal of Public Procurement Halduskultur Administrative Culture	0 - 0	0 -	0	0 Rolfstam M.

### C.15.9 Procurement strategy: Contracting-out

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Privatization and its reverse: Explaining the dynamics of the government contracting process	2004	Journal of Public Administration Research and Theory	117	99	108	Hefetz, A, Warner, M
The mythology of privatization in contracting for social services	2003	Public Administration Review	115	92	103.5	Van Slyke, DM
Contracting out by the public sector: theory, evidence, prospects	1997	Oxford Review of Economic Policy	111	94	102.5	Domberger S., Jensen P.
Agents or stewards: Using theory to understand the government-nonprofit social service contracting relationship	2007	Journal of Public Administration Research and Theory	100	90	95	Van Slyke, DM
Managing public service contracts: Aligning values, institutions, and markets	2006	Public Administration Review	84	67	75.5	Brown T.L., Pototski M., Van Slyke D.M. Brown, TL, Pototski, M
Contract-management capacity in municipal and county governments Exploring and explaining contracting out: Patterns among the American states	2003	Public Administration Review	68	61	64.5	
	2005	Journal of Public Administration Research and Theory	49	43	46	Brudney, JL, Fernandez, S, Ryu, JE, Wright, DS

Continued on next page

Procurement strategy: Contracting-out – continued from previous page						
Title	Year	Journal	Citations	WoS citations	Mean	Authors
			Scopus	Scopus	27.5	
Performance-based contracting in social welfare programs	2007	The American Review of Public Administration Of Construction Engineering And Management	27	28	Heinrich, CJ, Choi, Y	
Partnering on defense contracts	2002	Journal Of Construction Engineering And Management	29	21	Glagola, CR, Sheedy, WM	
Ensuring accountability in human services contracting - Can stewardship theory fill the bill?	2002	The American Review of Public Administration	27	23	Dicke, LA	
Contracting for management: Assessing management capacity under alternative service delivery arrangements	2006	Journal of Policy Analysis and Management	21	21	Brown, T, Potoski, M	
Contracting out and accountability	1997	Australian Journal of Public Administration	21	19	Mulgan, R	
Incentives and the efficiency of public sector-outsourcing contracts	2005	Journal of Economic Surveys	19	21	Jensen, PH, Stonecash, RE	
Contracting for health services in a public health system: the New Zealand experience	2004	Health policy	19	16	Ashton, T, Cumming, J, McLean, J	

Continued on next page

**Procurement strategy: Contracting-out – continued from previous page**

Title	Year	Journal	Citations	WoS	Mean	Authors
			Scopus	Scopus	citations	
Purchase-of-service contracting, voluntary organizations, and civil society – Dissecting the goose that lays the golden eggs?	1998	American Behavioral Scientist	18	17	17.5	Nowland-Foreman, G
The role of contract design in privatization of child welfare services: the Kansas experience	2004	Children Youth and Services Review	15	12	13.5	Umruh, JK, Hodgkin, D
Contract service firms in local authorities: Evolving geographies of activity	1999	Regional Studies	15	10	12.5	Reimer, S
Contracting-out health care services: a conceptual framework	1999	Health policy	15	9	12	Vining, AR, Globerman, S
Cost efficiency in primary care contracting: a stochastic frontier cost function approach	2004	Health Economics	11	10	10.5	Puig-Junoy, J, Ortun, V
Contract governance and the Canadian public sector	2003	Industrial Relations	12	9	10.5	Ilean, SM, O'Connor, DM, Oliver, ML Chalmers J., Davis G.
Rediscovering implementation: Public sector contracting and human services	2001	Australian Journal of Public Administration	9	11	10	
The role of nonprofit human service organizations in providing social services: A prefatory essay	2004	Administration in Social Work	5	14	9.5	Schmid, H

Continued on next page

Title	Year	Journal	Citations	Scopus	WoS	Mean citations	Authors
The 'externalisation' of local public service delivery: Experience in Italy and Sweden	2010	International Journal of Public Policy	9	9	9	9	Argento D., Grossi G., Tagesson T., Collin S.-O. Boardman, AE, Hewitt, ES
Problems with contracting out government services: lessons from orderly services at SCGH	2004	Industrial and Corporate Change	10	7	8.5		
Contracting and negotiation: Effective practices of successful human service contract managers	1998	Public Administration Review	9	8	8	8.5	Gooden, V.
Contracting-in management to strengthen publicly financed primary health services: The experience of Punjab, Pakistan	2009	Health policy	8	8	8	8	Loevinsohn, B, ul Haq, I, Couffinhal, A, Pande, A
Contracting-out in public health and water services in Ghana	1998	International Journal of Public Sector Management	8	8	8	8	Larbi G.A.
Contracting capacity and perceived contracting performance: Nonlinear effects and the role of time	2009	Public Administration Review	8	8	8	8	Yang, K., Hsieh, J.Y., Li, T.S.
Privatization morphs into 'publicization': Businesses look a lot like government	2003	Public Administration	7	8	7.5	7.5	Sellers, MP

Continued on next page

Title	Year	Journal	Procurement strategy: Contracting-out – continued from previous page			Authors
			Citations	WoS	Mean citations	
			Scopus	7	7	, B, Graddy, EA
The Effectiveness of Non-profit Lead-Organization Networks for Social Service Delivery	2010	Nonprofit Management and Leadership				
The effects of administrative professionals on contracting out	2009	Governance	6	7	6.5	Bhatti Y., Olsen A.L., Pedersen L.H.
The challenges of contracting and accountability across the federal system: From ambulances to space shuttles	2004	The Journal of Federalism	8	5	6.5	Johnston, JM, Romzek, BS, Wood, CH
Applying principles for outcomes-based contracting in a public health program.	2004	Journal of public health management and practice	7	6	6.5	Honore P.A., Simoes E.J., Moonesinghe R., Kirby H.C., Renner M. Walker H., Knight L., Harland C.M. Davis G., Wood T.
Outsourced services and 'imbalanced' supply markets	2006	European Management Journal	6		6	
Is there a future for contracting in the Australian public sector?	1998	Australian Journal of Public Administration	6	6	6	
The politics and administration of privatization: Contracting out for corrections management in the United States	2004	Policy Studies Journal	9	3	6	Nicholson-Crotty, S

Continued on next page

Procurement strategy: Contracting-out – continued from previous page						
Title	Year	Journal	Citations	Scopus	WoS	Mean citations
			6	6	6	Authors
Contracting in ten English local authorities: Preferences and practices	2000	International Journal of Public Sector Management	6	6	6	Darwin J., Du- berley J., John- son P.
Privatization, public goods, and the ironic challenge of free trade agreements	2007	Administration & Society	5	6	5.5	Gerbasi, J., Warner, ME
Private operation with public supervision: evidence of hybrid modes of governance in prisons	2010	Public Choice	5	5	5	Cabral, S., Laz- zarini, SG, de Azevedo, PF
The impact of the Australian government job network contracting on not-for-profit service providers	2007	Australian Journal of Public Administration	5	5	5	Rogers, C
Economic culture and quasi-markets in local government: The case of contracting for social care	1997	Local Government Studies	3	7	5	Mackintosh, M
Complex management contracts: the case of customs administration in Mozambique	1999	Public Administra- tion and Develop- ment	5	5	5	Hubbard, M., Delay, S., Devas, N
SHAPING THE PROVISION OF OUTSOURCED PUBLIC SERVICES Incentive Efficacy and Service Delivery	2009	Public Performance & Management Review	5	5	5	Marvel, MK, Marvel, HP

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Procurement strategy: Contracting-out – continued from previous page								
Title	Year	Journal	Citations	Scopus	WoS	Citations	Mean	Authors
Insourcing and outsourcing: The dynamics of privatization among U.S. Municipalities 2002-2007 Opening up Public Services to Competition by Putting Them Out to Tender: An Evaluation Contracting-out in urban green-space management: Instruments, approaches and arrangements Motivations and impediments to service contracting, consolidations, and strategic alliances in public transit organizations The provider/purchaser split: A report from New Zealand Government contracts and contractor behavior Contracting private sector providers for public sector health services in Jalisco, Mexico: Perspectives of system actors Market-Based Government and the Decline of Organizational Ethics	2012 2003 2009 2001 1998 2006 2009 2010	Journal of the American Planning Association Annals of Public and Cooperative Economics Urban Forestry & Urban Greening Administration & Society Governance Journal of Business Ethics Human resources for health Administration Society	6 4 4 4 5 4 3 2	6 4 4 4 5 4 3 2	3 4 4 3 5 3 4 2	4.5 4 4 3.5 3.5 3 3.5 3	Warner M.E., Hefetz A. Bance P. Lindholst A.C. Ugboro I.O., Obeng K., Talley W.K. Ormsby, MJ Berrios, R Nigenda G.H., Gonzalez L.M. Adams, GB, Balfour, DL	

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Procurement strategy: Contracting-out – continued from previous page							
Title	Year	Journal	Citations	Scopus	WoS	Mean citations	Authors
Contracting out public service provision to not-for-profit firms	2010	Oxford Papers	3	3	3	3	Bennett J., Tossa E.
Contracting out and trust in the public sector: Cases of management from Hong Kong	2005	Public Organization Review	3			3	Huque A.S.
Outsourcing Public Service Delivery: Management Responses in Noncompetitive Markets	2012	Public Administration Review	3	3	3	3	Girth, AM, Hefetz, A, Johnston, JM, Warner, MF Rosnick, M
Building public health goals into the purchasing process: Managed care perspective	1998	American Journal of Preventive Medicine	3	3	3	3	
The new public management of security: the contracting and managerial state and the private military industry	2010	Public Money & Management	3	2	2	2.5	Ortiz, C.
Contracting out in Korean local governments: current situation and challenges ahead	2004	International Review of Administrative Sciences	2		3	2.5	Park, SJ
Satisfaction of contract provider agencies with a State's Child Welfare Agency	2006	Children and Youth Services Review	4		1	2.5	Barton, WH, Folaron, G, Busch, M, Hostetter, C
Public functions and private services: A gap in human rights protection	2008	International Journal of Constitutional Law			2	2	Palmer, S.

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Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
The role of the discount rate in tendering highway concessions under the LPVR approach	2010	Transportation Research Part A	2	2	2	Vassallo, JM
Institutional sources of distrust in government contracting: A comparison between home-based and residential social services in Spain	2009	Public Management Review	2	2	2	Saz-Carranza A., Serra A.
Bureaucrats as purchasers of health services: Limitations of the public sector for contracting	2011	Public Administration and Development	2	1	1.5	Zaidi S., Mayhew S.H., Palmer N.
The Politics of Transaction Costs	1999	Public Money & Management Journal of Applied Business Research	1	0	0.5	Choi Y.-C.
Public finance expenditure and awarding work to external contractors - Case of Slovenia	2011	Journal of Applied Business Research	0	0	0	Setnikar-Cankar S., Seljak J., Petkovsek V.
Purchase-of-service contracting in Estonia	2010	Halduskultuur - Administrative Culture	-	0	0	Lember V., Kriz K.A.
Contracting out at local government level in Slovakia and the Czech Republic	2007	Public Management Review	0	0	0	Nemec J., Merickova B., Sumpikova M.F.

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Procurement strategy: Contracting-out – continued from previous page						
Title	Year	Journal	Citations	Scopus	WoS	Mean citations
			0	0	0	Authors
Adapting to liberalization: government procurement of interregional passenger transports in Sweden, 1989-2008	2012	Journal of Transport Geography	0	0	0	Eriksson, M., Pettersson, T
Contract Management Capacity Breakdown? An Analysis of U.S. Local Governments	2012	Public Administration Review	0	0	0	Joaquin, ME, Greitens, TJ
The Neoliberal Transformation of Local Government in Turkey and the Contracting Out of Municipal Services: Implications for Public Accountability	2012	Mediterranean Politics	0	0	0	Kadirbeyoglu, Z, Sumner, B
Delivery of Public Services by Non-Government Organisations To Trust or Not to Trust? What Matters in Local Government-Vendor Relationships?	2012	Australian Journal of Public Administration	0	0	0	Housegoo, A., O'Brien, T
Reforming social services in Hong Kong: The role of contracting and performance management in the non-profit sector	2008	Australian Journal of Public Administration	0	0	0	Lamothe, M., Lamothe, S
						Wong, H.K.

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Procurement strategy: Contracting-out – continued from previous page						
Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
How Hollow Can We Go? A Case Study of the Florida's Efforts to Outsource Oversight of Privatized Child Welfare Services Contracting: The Queensland Housing Commission experience, 1945-1957 Managerial challenges in public service contracting: Lessons in green-space management	2012	The American Review of Public Administration	0	0	0	Yang, KF, Van Landingham, G
	1997	Australian Economic History Review	0	0	0	Hollander, R
	2011	Public Administration	0	0	0	Lindholt A.C., Bogetoft P.

### C.15.10 Procurement strategy: Green Public Procurement

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
			28	18	23	Preuss L.
Addressing sustainable development through public procurement: The case of local government	2009	Supply Chain Management: An International Journal				
The hurdle analysis. A self-evaluation tool for municipalities to identify, analyse and overcome hurdles to green procurement	2006	Corporate Social Responsibility and Environmental Management	22		22	Günther Scheibe L., E.,
Fostering sustainability through sourcing from small businesses: public sector perspectives	2008	Journal of Cleaner Production	25	18	21.5	Walker, Preuss, L., H,
Sustainable procurement in practice: Lessons from local government	2007	Journal Of Environmental Planning And Management	21	15	18	Thomson, Jackson, T., J,
Buying into our future: Sustainability initiatives in local government procurement	2007	Business Strategy and the Environment	16		16	Preuss L.
Developing priorities for greener state government purchasing: a California case study	2005	Journal Of Cleaner Production	19	13	16	Swanson, Weissman, M, A, Davis, G, Socolof, ML, Davis, K

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Procurement strategy: GPP – continued from previous page						
Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Experiences with greening suppliers. The Universitat Autònoma de Barcelona Green procurement in Norway; a survey of practices at the municipal and county level	2008	Journal of Cleaner Production	17	12	14.5	Bala A., Mmooz P., Rieradevall J., Ysern P., Michelsen, O., de Boer, L
Making the market work for the environment: Acceptance of (some) 'green' contract award criteria in public procurement	2003	Journal of Environmental Law	11	11	11	Kunzlik, P.
Greener public purchasing: opportunities for climate-friendly government procurement under WTO and EU rules	2006	Climate Policy	11	9	10	van Asselt, H., van der Grijp, N., Oosterhuis, F
Environmental criteria in the public purchases above the EU threshold values by three Nordic countries: 2003 and 2005	2009	Ecological Economics	12	7	9.5	Nissinen A., Parikka-Alhola K., Rita H.
Protecting the environment through public procurement: The case of South Africa	2008	Natural Resources Forum	11	7	9	Bolton P.

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Title	Year	Journal	Procurement strategy: GPP – continued from previous page			Authors
			Citations	WoS	Mean citations	
			Scopus	10	8	
A life cycle approach to Green Public Procurement of building materials and elements: A case study on windows	2011	Energy				Tarantini, M., Loprieno, AD, Porta, PL
Life cycle approach in the procurement process: The case of defence materiel	2006	The International Journal of Life Cycle Assessment	8	6	7	Hochschorner, E, Finnveden, G
Release the power of the public purse	2006	Energy Policy	5	4	4.5	Borg N., Blume Y., Thomas S., Irrek W., Fanninger-Lund H., Lund P., Pindar A. Otsuki K.
Sustainable partnerships for a green economy: A case study of public procurement for home-grown school feeding	2011	Natural Resources Forum	3	3	3	
Green public procurement: Analysis on the use of environmental criteria in contracts	2010	Review of European Community & International Environmental Law	3	3	3	Palmujoki, A, Parikka-Alhola, K, Elkroos, A
Psychological barriers in the road to sustainable development: Evidence from public sector procurement	2011	Business Strategy and the Environment	3	2	2.5	Preuss L., Walker H.

Continued on next page

Title	Year	Journal	Procurement strategy: GPP – continued from previous page			Mean	Authors
			Citations	Scopus	WoS		
The relationship between sustainable procurement and e-procurement in the public sector	2012	International Journal of Production Economics	3	3	2	2.5	Walker H., Brämer S.
Barriers to addressing construction procurement in public strategies	2011	Proceedings of the Institution of Civil Engineers: Engineering Sustainability	3	1	2	2	Sourani, A., Sohail, M.
Public procurement incentives for sustainable design services: Swedish experiences	2009	Sustainable Architectural engineering and design management	2	2	2	2	Sporrong J., Brochner J.
What factors influence the uptake of GPP (green public procurement) practices? New evidence from an Iranian survey	2012	Ecological Economics	1	1	1	1	Testa F., Iraldo F., Frey M., Daddi T.
Procurement for sustainable local economic development	2012	International Journal of Public Sector Management	1	1	1	1	Nijaki L.K., Worrel G.
Sustainability and local food procurement: a case study of Finnish public catering	2012	British Food Journal	2	0	1	1	Lehtinen, U
Green public procurement in practice - The case of Norway	2011	Society and Economy	1	1	1	1	Fet A., Michelsen O., Boer L.

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Title	Procurement strategy: GPP – continued from previous page	Year	Journal	Citations	Citations	Mean	Authors
				Scopus	WoS	citations	
The impact of sustainable public procurement on supplier management - The case of French public hospitals	Industrial Market-ing Management	2012	Journal of Public Procurement	0	0	0	Parikka-Alhola K., Nissinen A.
Environmental impacts and the most economically advantageous tender in public procurement	2012	Public Money & Management	0	0	0	0	Erridge A., Hennigan S.
Sustainable procurement in health and social care in Northern Ireland	2012	Journal of Integrative Environmental Sciences	0	0	0	0	Melissen, F., Reinders, H
A reflection on the Dutch Sustainable Public Procurement Programme	2012						

### C.15.11 Procurement strategy: e-Procurement

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
An e-procurement system for governmental purchasing	2004	International Journal of Production Economics	56	36	46	Panayiotou, NA, Gayialis, SP, Tatsiopoulos, IP Chu, PY, Hsiao, N, Lee, FW, Chen, CW
Exploring success factors for Taiwan's government electronic tendering system: behavioral perspectives from end users	2004	Government Information Quarterly	36	22	29	
Profiling a methodology for economic growth and convergence: Learning from the EU e-procurement experience for central and eastern European countries	2005	Technovation	36	19	27.5	Carayannis E.G., Popescu D.
E-government policy and practice: A theoretical and empirical exploration of public e-procurement Towards an e-Government efficiency agenda: the impact of information and communication behaviour on e-Reverse auctions in public sector procurement	2008	Government Information Quarterly	30	19	24.5	Hardy C.A., Williams S.P.
	2007	European Journal Of Information Systems	26	13	19.5	Hackney, R, Jones, S, Losch, A

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Procurement strategy: e-Procurement – continued from previous page						
Title	Year	Journal	Citations	WoS	Mean citations	Authors
			Scopus	7	7	Wirtz B., Lutje S., Schierz P.G.
An empirical analysis of the acceptance of e-procurement in the German public sector	2008	International Journal of Public Administration	6	6	Assar Boughzala	S., I. Johnson M.
Empirical evaluation of public e-procurement platforms in France	2011	Management International Journal of Services Technology and Management	6	6	Vaidya K., Hyde M.	
Public procurement: A study of benefits from e-markets in the local government sector	2011	Int. J. of Business Information Systems	5	5	Vaidya K., Hyde M.	
Inter-organisational information systems as-simulation: An empirical evaluation in light of the diffusion of innovation theory	2012	Government Information Quarterly	4	2	Concha, Astudillo, G., H., Porrua, M., Pimenta, C. Johnson M.	
E-Government procurement observatory, maturity model and early measurements	2012	Journal of Enterprise Information Management	3	3		
A study of e-market adoption barriers in the local government sector	2012	Journal of Public Procurement	2	2	McCue C., Roman A.V.	
E-procurement: Myth or reality?						Continued on next page

Title	Year	Journal	Citations	Scopus	WoS	Mean citations	Authors
Towards a pan-european e-procurement platform to aggregate, publish and search public procurement notices powered by linked open data: The moldas approach	2012	International Journal of Software Engineering and Knowledge Engineering	3	1	2	Alvarez J.M., Labra J.E., Cifuentes F., Alor-Hernandez G., Sanchez C., Luna J.A.G.	
Use of E-procurement in local authorities' purchasing and its effects on local economies: Evidence from Cumbria, UK	2010	European Planning Studies	2	2	2	Cabras I.	
An integrated approach in healthcare e-procurement: The case-study of the ASL of Viterbo	2005	Lecture Notes in Artificial Intelligence	1	1	1	Federici, T	
Evaluating the anti-corruption capabilities of public eprocurement in a developing country	2012	The Electronic Journal on Information Systems in Developing Countries	0	0	0	Neupane A., Soar J., Vaidya K.	

### C.15.12 Procurement strategy: Early contractor involvement

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Early contractor involvement in dutch infrastructure development: Initial experiences with parallel procedures for planning and procurement	2012	Journal of Public Procurement	3	3	3	Arts J., Tillema T., van Valkenburg M., Nijsten R.

### C.15.13 Procurement strategy: Lean PP

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Is local authority procurement 'lean'? An exploration to determine if 'lean' can provide a useful explanation of practice	2010	Journal of Purchasing and Supply Management	7	2	4.5	Loader, K
Lean thinking within public sector purchasing department: The case of the U.K public service	2012	Journal of Public Procurement	0	0	0	Waterman J., McCue C.

### C.15.14 Procurement strategy: Shared services

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Shared services: An outline of key contractual issues	2010	Computer Law and Security Review: The International Journal of Technology and Practice	1	1	1	Turle M.

### C.15.15 Procurement strategy: Joint procurement

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Procurement as a shared service in English local government	2008	International Journal of Public Sector Management	6	6	6	Murray J.G., Rentell P.G., Geere D.
Public libraries and the consortium purchase of electronic resources	2003	Electronic Library	5	1	3	Ball, D.
One-Year assessment of joint procurement of pharmaceuticals in the public health sector in Jordan	2009	Clinical Therapeutics	2	1	1.5	Al-Abbadia I., Qawwas A., Jaafreh M., Abosamen T., Saket M., Marriott R.
Let's stick together: Collaborative purchasing of electronic journals in the National Health Service	2008	Health Information & Libraries Journal	0	0	0	
Cost impact of purchasing pharmaceuticals jointly in the public health sector in Jordan	2011	Jordan Journal of Pharmaceutical Sciences	0	0	0	Alabbdia I.

### C.15.16 Procurement strategy: Prime contracting

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Legal issues associated with emergent actor roles in innovative U.K. procurement: Prime contracting case study	2006	Journal of Professional Issues in Engineering Education and Practice	9	4	6.5	Pryke S.D., JM, Berry, TR

### C.15.17 Procurement strategy: Market-based PP

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Developing new forms of partnership with the 'Market' in the procurement of public services	2006	Public Administration	55	44	49.5	Bovaird T.
Government Contracts and “Managing the Market”: Exploring the Costs of Strategic Management Responses to Weak Vendor Competition	2012	Administration & Society	9	7	8	Johnston, JM, Girth, AM

### C.15.18 Procurement strategy: Emergency contracting

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Emergency contracting strategies for federal projects	2008	Journal of Professional Issues in Engineering Education and Practice	1	1	1	Jeffrey, JT, Menches, CL
After Katrina: Comparisons of post-disaster public procurement approaches and outcomes in the New Orleans area	2012	Journal of Public Procurement Practice	0	0	0	Atkinson C.L., Sapat A.K.

### C.15.19 Procurement strategy: De- / centralization

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Centralized vs. decentralized procurement: Does dispersed information call for decentralized decision-making?	2000	International Journal of Industrial Organization	12	9	10.5	Vagstad, S
Estimating the cost effects of purchasing centralization-Empirical evidence from framework agreements in the public sector	2011	Journal of Purchasing and Supply Management	3	2	2.5	Karjalainen, K
State and Local Government Procurement and the Winter Commission	2008	Public Administration Review	2	0	1	Potoski, M

## C.15.20 Procurement strategy: PP Partnerships

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Innovative practices in public procurement partnerships: The case of the United States	2005	Journal of Purchasing and Supply Management	9	9	9	Lawther W.C., Martin L.L.

### C.15.21 Procurement strategy: Social procurement

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Using public procurement to achieve social outcomes	2004	Natural Resources Forum	47	27	37	McCrudden C.

C.15.22 Procurement strategy: Eminent domain versus purchase of land

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Eminent Domain versus Purchase of Land Given Imperfect Information about Owners' Valuations	2010	The Journal of Law and Economics	3	3	3	Shavell, S

### C.15.23 Procurement strategy: Mixed service delivery

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Managing markets for public service: The role of mixed public-private delivery of city services	2008	Public Administration Review	48	29	38.5	Warner M.E., Hefetz A.
Simultaneous public and private provision of services, asymmetric information and innovation	2003	International Tax and Public Finance	1	2	1.5	Broadway, R, Marchand, M, Tremblay, JF

#### C.15.24 Procurement strategy: Offsets

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Modeling offset policy in government procurement	2003	Journal Of Policy Modeling	7	2	4.5	Taylor, TK

### C.15.25 Procurement strategy: Promoting SMEs

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Competing agendas in public procurement: an empirical analysis of opportunities and limits in the UK for SMEs	2011	Environment and Planning C: Government and Policy	6	3	4.5	Pickernell, D, Kay, A, Packham, G, Miller, C

### C.15.26 Procurement strategy: Dual sourcing

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Does dual sourcing lower procurement costs?	2006	The Journal of Industrial Economics	10	10	10	Lyon, TP

## C.15.27 Public procurement tool

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Using bargaining-game theory for negotiating concession period for BOT-type contract	2007	Journal Of Construction Engineering And Management	28	30	29	Shen, LY, Bao, H.J, Wu, YZ, Lu, WS
Developing priorities for greener state government purchasing: a California case study	2005	Journal Of Cleaner Production	19	13	16	Swanson, M, Weissman, A, Davis, G, Socolof, ML, Davis, K, Boeing Singh L., Kalidindi S.N.
Traffic revenue risk management through Annuity Model of PPP road projects in India	2006	International Journal of Project Management	11		11	
Conditions and benefits of applying decision technological solutions as a tool to curb corruption within the procurement process: The case of Hungary E-Government procurement observatory, maturity model and early measurements	2005	Journal of Purchasing and Supply Management	8		8	Csaki C., Gelleri P.
Data mining for government construction procurement	2004	Building Research & Information	2	0	1	Concha, G, Astudillo, H, Porrua, M, Pimenta, C Peng, Y.-H., Chang, C.-L.

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Public procurement tool – continued from previous page						
Title	Year	Journal	Citations	Citations	Mean	Authors
			Scopus	WoS	citations	
A model of trade restrictive- ness index: Its application and implications in public procurement	2012	Journal of Public Procurement	0	0	0	Demessie D.

## C.15.28 Effect of public procurement

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Public expenditure, international specialisation and agglomeration	2004	European Economic Review	23	17	20	Bruylants F., Trionfetti F.
Contracting out and accountability	1997	Australian Journal of Public Administration	21	19	20	Mulgan, R
Government procurement: Market access, transparency, and multilateral trade rules	2005	European Journal of Political Economy	16		16	Evenett S.J., Hoekman B.M.
Public sector restructuring and regional development: The impact of compulsory competitive tendering in the UK	2000	Regional Studies	15	13	14	Pinch, PL, Patterson, A
The challenge of competitive procurement: Value for money versus small business support	2007	Public Money & Management	11	6	8.5	Loader K.
'Privatization morphs into 'publicization': Businesses look a lot like government	2003	Public Administration	7	8	7.5	Sellers, MP
Public procurement strategy for accelerating the economic recovery	2009	Supply Chain Management: An International Journal	7	3	5	Murray J.G.

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Effect of public procurement – continued from previous page							
Title	Year	Journal	Citations	Scopus	WoS	Mean citations	Authors
The impact of the Australian government job net-work contracting on not-for-profit service providers	2007	Australian Journal of Public Administration	5	5	5	5	Rogers,
Urban competitiveness and public procurement for innovation	2011	Urban Studies	6	2	4	4	Lember V., Kalvet T., Kattel R.
Contract compliance: sub-national and European influences in Northern Ireland Law, economics, and the reinvention of public administration: Using relational agreements to reduce the cost of procurement regulation and other forms of government intervention in the economy	2002	Journal of European Social Policy	3	3	3	3	Fee, R
Eminent Domain versus Government Purchase of Land Given Imperfect Information about Owners' Valuations	1998	Administrative Law Review	1	5	5	3	Kovacic, WE
Market-Based Government and the Decline of Organizational Ethics	2010	Administration & Society	2	2	4	3	Adams, GB, Balfour, DL

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Title	Year	Journal	Effect of public procurement – continued from previous page					
			Citations	Scopus	WoS	Citations	Mean	Authors
			3	2	2.5	C.		
The new public management of security: the contracting and managerial state and the private military industry	2010	Public Money & Management						
Whatever happened to competition in space agency procurement? The case of NASA	2008	Journal of Applied Economics	2	2	2	Zervos, V.		
Mapping the spatial patterns of public procurement: A case study from a peripheral local authority in Northern England	2011	International Journal of Public Sector Management	2		2	Cabras I.		
Public functions and private services: A gap in human rights protection	2008	International Journal of Constitutional Law		2	2	Palmer, S.		
Use of E-procurement in local authorities' purchasing and its effects on local economies: Evidence from Cumbria, UK	2010	European Planning Studies	2	2	2	Cabras I.		
Public Procurement at the Local Level in Austria: The Economic Consequences of Compulsory Competitive Tendering for Public Services	2003	Expert Systems with Applications	1		1	Obermann G., Kostal T.		

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Effect of public procurement – continued from previous page						
Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Are public sector procurement models and practices hindering small and medium suppliers?	2011	Public Money & Management	1	1	1	Loader K.
Tendering procedures and buy-national policies	1999	International Advances in Economic Research	1	1	1	Mardas D.
Strategic procurement, openness and market structure	2008	International Journal of Industrial Organization	0	0	0.5	García-Alonso, MDC, Levine, P

### C.15.29 Effect: Economy

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Public expenditure, international specialisation and agglomeration	2004	European Economic Review	23	17	20	Bruylants M., Trionfetti F.
Government procurement: Market access, transparency, and multilateral trade rules	2005	European Journal of Political Economy	16		16	Evenett S.J., Hoekman B.M.
Public sector restructuring and regional development: The impact of compulsory competitive tendering in the UK	2000	Regional Studies	15		13	Pinch PL, Patterson, A
Public procurement strategy for accelerating the economic recovery	2009	Supply Chain Management: An International Journal	7	3	5	Murray J.G.
Urban competitiveness and public procurement for innovation	2011	Urban Studies	6	2	4	Lember V., Kalvet T., Kattel R.
Use of E-procurement in local authorities' purchasing and its effects on local economies: Evidence from Cumbria, UK	2010	European Planning Studies	2	2	2	Cabras I.

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Title	Effect: Economy – continued from previous page Year Journal	Citations				Mean citations	Authors
		Scopus	WoS	2	2		
Mapping the spatial patterns of public procurement: A case study from a peripheral local authority in Northern England	2011 International Journal of Public Sector Management						Cabras I.
Public Procurement at the Local Level in Austria: The Economic Consequences of Compulsory Competitive Tendering for Public Services	2003 Expert Systems with Applications	1				1	Obermann G., Kostal T.
Tendering procedures and buy-national policies	1999 International Advances in Economic Research	1				1	Mardas D.
Strategic procurement, openness and market structure	2008 International Journal of Industrial Organization	1	0	0.5		0.5	Garcia-Alonso, MDC, Levine, P

### C.15.30 Effect: Human rights, society

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Contract compliance: sub-national and European influences in Northern Ireland Eminent Domain versus Government Purchase of Land Given Imperfect Information about Owners' Valuations Public functions and private services: A gap in human rights protection	2002 2010	Journal of European Social Policy The Journal of Law and Economics	3 3	3 3	3 3	Fee, R Shavell, S.
	2008	International Journal of Constitutional Law	2	2	2	Palmer, S.

### C.15.31 Effect: SMEs

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
The challenge of competitive procurement: Value for money versus small business support	2007	Public Money & Management	11	6	8.5	Loader K.
Are public sector procurement models and practices hindering small and medium suppliers?	2011	Public Money & Management	1	1	1	Loader K.

### C.15.32 Effect: Ethics

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Market-Based Government and the Decline of Organizational Ethics	2010	Administration & Society	2	4	3	Adams, Balfour, DL, GB,

### C.15.33 Effect: Public procurement efficiency

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Law, economics, and the reinvention of public administration: Using relational agreements to reduce the cost of procurement regulation and other forms of government intervention in the economy	1998	Administrative Law Review	1	5	3	Kovacic, WE

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Whatever happened to competition in space agency procurement? The case of NASA	2008	Journal of Applied Economics	2	2	2	Zervos, V

### C.15.34 Effect: Private contractor

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
'Privatization morphs into 'publicization': Businesses look a lot like government The impact of the austalian government job net-work contracting on not-for-profit service providers	2003	Public Administration	7	8	7.5	Sellers, MP

### C.15.35 Effect: Quality

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
The new public management of security: the contracting and managerial state and the private military industry	2010	Public Money & Management	3	2	2.5	Ortiz, C.

### C.15.36 Effect: Government accountability

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Contracting out and accountability	1997	Australian Journal of Public Administration	21	19	20	Mulgan, R

### C.15.37 Anti-corruption

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Corruption in public contracting auctions: The role of transparency in bidding processes	2006	Annals of Public and Cooperative Economics	10	10	Boehm F., Olaya J.	
Conditions and benefits of applying decision technological solutions as a tool to curb corruption within the procurement process: The case of Hungary	2005	Journal of Purchasing and Supply Management	8	8	Csaki C., Gelleri P.	
Bribery and public procurement: an experimental study	2008	Public Choice	5	4	4.5	Buchner, S., Freytag, A., Gonzalez, LG., Guth, W., Tabish S.Z.S., Jha K.N.
Analyses and evaluation of irregularities in public procurement in India	2011	Construction Management and Economics	3	3		
The transformation of transparency - On the act on public procurement and the right to appeal in the context of the war on corruption	2007	Journal of Business Ethics	2	2	2	Lennertors T.T.
Public procurement in the presence of capital taxation	2001	Regional Science And Urban Economics	2	1	1.5	Weichenrieder A.J.

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Anti-corruption – continued from previous page						
Title	Year	Journal	Citations	WoS citations	Mean	Authors
			Scopus	Scopus	1.5	
Corruption and public procurement: Example from Croatia	2010	Journal of Balkan and Near Eastern Studies	3	0	1.5	Ateljevic J., Budak J.
Evidence from public procurement in Bulgaria	2011	Public Management Review	1	1	1	Pashov, K.V.
Perceived benefits related to anti-corruption from e-tendering system in Nepal	2012	Asian Journal of Information Technology	1	1	1	Neupane A., Soar J., Vaidya K.
Evaluating the anti-corruption capabilities of public e-procurement in a developing country	2012	The Electronic Journal on Information Systems in Developing Countries	0	0	0	Neupane A., Soar J., Vaidya K.

### C.15.38 Trade discrimination

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
Discriminatory public procurement policy and cost reduction incentives	1998	Journal of Public Economics	27	15	21	Naegelen F., Mougeot M.
Public expenditure, international specialisation and agglomeration	2004	European Economic Review	23	17	20	Brulhart M., Trionfetti F.
Government procurement: Market access, transparency, and multilateral trade rules	2005	European Journal of Political Economy	16		16	Evenett S.J., Hoekman B.M.
Public procurement directives in the European union: A study of local authority purchasing	1999	Public Administration	9	7	8	Martin S., Hartley K., Cox A.
How costly is affirmative action? Government contracting and California's proposition 209	2009	The Review of Economics and Statistics	7	6	6.5	Marion, J
Utilizing affirmative action in public sector procurement as a local economic development strategy	2009	Economic Development Quarterly	3	4	3.5	Bates T.
Defence procurement of dual-use goods: Is there a single market in the European union?	1999	Defence and Peace Economics	3	3	3	Martin S., Hartley K., Cox A.

Continued on next page

Title	Year	Journal	Trade discrimination – continued from previous page				Authors
			Citations	WoS	Mean	citations	
			Scopus	1	2.5	Van Long, N, Stahler, F	
A contest model of liberalizing government procurements	2009	European Journal Of Political Economy	4	1	1.5	Collie, Hvind, M Rohlfing, I	DR,
International procurement as a signal of export quality Discrimination in international trade: A different perspective	2001	The Economic Journal	2	1	1.5	Collie, Hvind, M Rohlfing, I	
Services procurement under the WTO's Agreement on Government Procurement: whether market access?	2009	Acta Politica	0	0	0		
Europe Agreements, and public procurement	2011	World Trade Review	0	0	0	Shingal, A	
Stabilization and Association Agreements (SAAs),	2010	Atlantic Economic Journal	0	0	0	Mardas D.	
A model of trade restrictiveness index: Its application and implications in public procurement	2012	Journal of Public Procurement	0	0	0	Demessie D.	
Welfare loss in linear price-preference procurement auctions	2007	International Game Theory Review	0	0	0	Koh W.T.H.	

### C.15.39 Public procurement status overview

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
	1997	Oxford Review of Economic Policy	111	94	102.5	Dombberger S., Jensen P.
Contracting out by the public sector: theory, evidence, prospects	2006	Public Administration Review	84	67	75.5	Brown T.L., Pototski M., Van Slyke D.M. Bovard, T
Managing public service contracts: Aligning values, institutions, and markets	2004	International Review of Administrative Sciences	76	57	66.5	
Public-private partnerships: from contested concepts to prevalent practice	1998	Public Administration	56	46	51	Boyne, GA
Competitive tendering in local government: A review of theory and evidence	2004	International Journal of Production Economics	56	36	46	Panayiotou, NA, Gayialis, SP, Tatsiopoulos, IP Warner M., Hefetz A.
An e-procurement system for governmental purchasing	2003	Environment and Planning C: Government and Policy	40	37	38.5	
Rural-urban differences in privatization: Limits to the competitive state	2008	Public Administration Review	48	29	38.5	Warner M.E., Hefetz A.
Managing markets for public service: The role of mixed public-private delivery of city services	2009	Economic Affairs	23	23	23	Hodge G.A., Greve C.
PPPs: The passage of time permits a sober reflection						Continued on next page

Title	Year	Journal	Citations 13	Scopus Citations	WoS citations	Mean citations	Authors
Public procurement of consulting services: Evidence and comparison with private companies	2006	International Journal of Public Sector Management				13	Roodhooft F., Van den Abbeele A.
Professional service acquisition in public sector procurement - A conceptual model of meaningful involvement	2006	International Journal of Operations and Production	16	8	8	12	Schielle, JJ, McCue, CP
Procurement methods for US infrastructure: Historical perspectives and recent trends	2002	Building Research & Information	13	6	6	9.5	Pietroforte, R, Miller, JB
Outcome-orientation in performance contracts: empirical evidence from Swiss local governments	2007	International Review of Administrative Sciences	9	9	9	9	Proeller, I.
Enabling development of the transportation public-private partnership market in the United States	2010	Journal Of Construction Engineering And Management	9	5	5	7	Garvin M.J.
Is there a future for contracting in the Australian public sector? Insourcing and outsourcing: The dynamics of privatization among U.S. Municipalities 2002-2007	1998	Australian Journal of Public Administration	6	6	6	6	Davis G., Wood T.
	2012	Journal of the American Planning Association	6	3	3	4.5	Warner M.E., Hefetz A.

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Public procurement status overview – continued from previous page

Title	Year	Journal	Citations	WoS	Mean citations	Authors
			Scopus	7	4.5	Loader, K
Is local authority procurement 'lean'? An exploration to determine if 'lean' can provide a useful explanation of practice	2010	Journal of Purchasing and Supply Management				
Reforming defense procurement: Lessons from France	2009	Business & Politics	4		4	Kapstein E.B.,
Infrastructure procurement: Learning from private-public partnership experiences 'down under'	2011	Environment and Planning C: Government and Policy	4		4	Oudot J.-M. M., Regan P., Smith J., Love P.
Procurement of construction projects in local government	2005	Municipal Engineer	2	2	2	Wamuziri, S., Seywright, A.
Whatever happened to competition in space agency procurement? The case of NASA	2008	Journal of Applied Economics	2	2	2	Zervos, V
Public Procurement at the Local Level in Austria: The Economic Consequences of Compulsory Competitive Tendering for Public Services	2003	Expert Systems with Applications	1		1	Obermann G., Kostal T.
New paradigms for public procurement of construction projects in the United Kingdom - Potential applicability in Spain	2008	Canadian Journal of Civil Engineering	1	1	1	De La Cruz M.P., Del Cano A., De La Cruz E.

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Public procurement status overview – continued from previous page

Title	Year	Journal	Citations	WoS	Mean citations	Authors
State and Local Government Procurement and the Winter Commission	2008	Public Administration Review	2	0	1	Potoski, M
Public-private partnerships in the 21st century	2010	ERA Forum	1	1	1	Bovis C.
Limits of public procurement: Information systems acquisition	2006	Lecture Notes in Computer Science	1	0	0.5	Moe, CE, Risdvand, A, Sein, MK
Public finance expenditure and awarding work to external contractors - Case of Slovenia	2011	Journal of Applied Business Research	0	0	0	Setnikar-Cankar S., Seljak J., Petkovsek V.
Delivery of Public Services by Non-Government Organisations	2012	Australian Journal of Public Administration	0	0	0	Housegoo, A, O'Brien, T

## C.15.40 Other topics

Title	Year	Journal	Citations Scopus	Citations WoS	Mean citations	Authors
			11	13	12	
Active and Passive Waste in Government Spending: Evidence from a Policy Experiment	2009	The American Economic Review				
Procurement routes in public building and construction projects	2006	Journal Of Construction Engineering And Management	15	8	11.5	Laedre, O, Austeng, K, Haugen, TI, Klakegg, OJ Murray J.G.
Improving the validity of public procurement research	2009	International Journal of Public Sector Management	10		10	
The involvement of small- and medium-sized enterprises in public procurement: Impact of resource perceptions, electronic systems and enterprise size	2008	Management Journal of Purchasing and Supply Management		9	9	Karjalainen K., Kemppainen K.
The Effects of Government Purchases Shocks: Review and Estimates for the EU	2011	The Economic Journal		8	6	Beetsma, R, Giuliodori, M
Organizational design in public procurement: A stakeholder approach	2007	Journal of Purchasing and Supply Management		6	6	Kamann D.-J.F.
Government Purchases and the Real Exchange Rate	2010	Open Economies Review	5	5	5	Kollmann, R

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Other topics – continued from previous page						
Title	Year	Journal	Citations	WoS citations	Mean citations	Authors
			Scopus	2	2.5	Hawkins T.G., Gravier M.J., Powley E.H.
Public Versus Private Sector Procurement Ethics and Strategy: What Each Sector can Learn from the Other	2011	Journal of Business Ethics				
Ethics in government: A survey of misuse of position for personal gain and its implications for developing acquisition strategy	1997	Journal of Business Ethics	1	1	1	McCormick, AS, Rood, TL
Exponential and power laws in public procurement markets	2012	Europhysics Letters	0	0	0	Kristoufek L., Skuhrovec J.
Bypassing public procurement regulation: A study of rationality in local decision-making	2011	Regulation & Governance	0	0	0	Hansson L., Holmgren J.

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- [3] URL <http://www.utwente.nl/mb/pa/staff/telgen/>.
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doi:[10.1016/S0140-6736\(96\)91016-8](https://doi.org/10.1016/S0140-6736(96)91016-8).
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doi:[10.7748/ns2010.08.24.51.47.c7943](https://doi.org/10.7748/ns2010.08.24.51.47.c7943).
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doi:[10.1111/j.1745-493X.2003.tb00152.x](https://doi.org/10.1111/j.1745-493X.2003.tb00152.x).

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