



**THE ATTRACTIVENESS OF THE PUBLIC PROCUREMENT AND ITS IMPACT  
ON FINNISH SUPPLIERS' WILLINGNESS TO IMPLEMENT GREEN  
INNOVATIONS**

Lappeenranta–Lahti University of Technology LUT

Master's Programme in Supply Management, Business Administration, Master's thesis

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## ABSTRACT

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### **The attractiveness of the public procurement and its impact on Finnish suppliers' willingness to implement green innovations**

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Professor Katrina Lintukangas

Keywords: public procurement, ecological responsibility, social responsibility, innovation, public sector, EU directive, law of procurement, social exchange theory (SET)

Public procurement refers to a process where public organizations like cities purchase goods and services from companies that exceeds the national thresholds. The principle of public procurement is to be transparent, equal, relative, and non-discriminate.

The aim of this research was to investigate what factors affect positively and negatively to the attractiveness of public procurement. In addition, the aim was to investigate how the emphasis on ecological criteria in comparison affect Finnish suppliers' willingness to innovate. This research was conducted as a qualitative survey research and the survey was send to companies that have already participated in the public tenders in southern part of Finland.

Value of the contract, location of the contract, clarity of documents and public procurement unit's reputation are factors that affect positively to the attractiveness. Negatively affect factors are preferring a specific vendor, unrealistic requirements, price competition, unclear documents and too high reference requirements. The biggest negative factor is pre-pegged prices used in public procurement. Only thirty-three percent of the respondents of the survey thinks that the situation in Ukraine has reduced the attractiveness of the public procurement.

## TIIVISTELMÄ

Lappeenrannan–Lahden teknillinen yliopisto LUT

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Kauppätieteet

Noora Löytömäki

### **Julkisten hankintojen houkuttelevuus ja sen vaikutus suomalaisten toimittajien halukkuutteen toteuttaa vihreitä innovaatioita**

Kauppätieteiden pro gradu -tutkielma

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Professori Katrina Lintukangas

Avainsanat: julkiset hankinnat, ekologinen vastuullisuus, sosiaalinen vastuullisuus, innovaatiot, julkinen sektori, EU-direktiivi, hankintalaki, sosiaalisen vaihdon teoria (SET)

Julkiset hankinnat tarkoittaa prosessia, jossa julkiset organisaatiot, kuten kaupungit ostavat tavaroita ja palveluita yrityksiltä, joiden arvo ylittää kansalliset kynnyksarvot. Julkisten hankintojen periaatteena on olla avoin, tasa-arvoinen, suhteellinen ja syrjimätön.

Tämän tutkimuksen tarkoituksena oli selvittää mitkä asiat vaikuttavat julkisten hankintojen houkuttelevuuteen negatiivisesti ja positiivisesti. Tarkoitus oli myös tutkia, kuinka ekologisten kriteerien painotus vertailussa edistää suomalaisten toimittajien innovointihalukkuutta. Tutkimus toteutettiin laadullisena kyselylomake tutkimuksena, joka lähetettiin jo julkisiin hankintoihin osallistuneille yrityksille Etelä-Suomessa.

Positiivisesti houkuttelevuuteen vaikuttaa hankinnan arvo, hankinnan sijainti, asiakirjojen selkeys ja julkisen hankintayksikön maine. Negatiivisina tekijöinä julkisissa hankinnoissa nähdään tietyn toimittajan suosiminen, epärealistiset vaatimukset, hintakilpailu, epäselvät asiakirjat ja liian korkeat referenssivaatimukset. Suurimpana negatiivisena tekijänä nähdään ennalta sidotut hinnat, joita käytetään julkisissa hankinnoissa. Vain kolmekymmentäkolme prosenttia kyselyyn vastaajista ajattelee, että Ukrainan tilanne on vähentänyt julkisten hankintojen kiinnostavuutta.

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# 1 Introduction

Public procurement refers to a process where public organizations like government departments and cities purchase goods and services from companies (European Commission 2017). Public procurement differs from private sector procurement in volumes which means that a purchase needs to exceed the national threshold to be classified as a public procurement. National threshold is 60 000 euros in goods and services, 150 000 euros in construction contracts and 400 000 euros in healthcare. (Pekkala, Pohjonen, Huikko & Ukkola 2022,18.)

Every year around 2 trillion euros are spent in public purchases by over 250 000 public authorities in the EU area. Public procurement has huge volumes and thus huge potential to influence on market and society. Public procurement can be used to employ the unemployed people and thus positively influence on state revenue. In addition, resource and energy efficiency can be boost by public procurement and companies can be encourages to be innovative. (European Commission 2022.)

When the volumes are large, competition between bidder companies is extreme important to obtain a competitive price for a good or service for the contract season. For example, according to Pekkala et al. (2022) in healthcare the national threshold is 400 000 euros, so it is important obtain competition between companies and to receive multiple tenders to get as low-price tender as possible which, however, meets at least the minimum requirements of quality. To obtain multiple tenders, it is important to investigate which factors affect to the companies' decisions to take part of the tender competition or to be not participating in the competition. In 2019, more than 10 percent of the contracts awarded were single bidders in almost all EU countries (Karttunen, Matela, Hallikas & Immonen 2022). That is an evocatively high share of all contracts which makes research even more important in order to solve the problem and reduce the share of single bidder procures.

In addition to price comparison, public procurement should also contribute to sustainable development, thereby encourage companies to implement green innovations and thus develop their businesses towards greener future. With innovations companies have the potential to solve environmental problems. (Saunila, Ukko & Rantala 2017.)

## 1.1 Structure of the study

This study is structured into five different main chapters and their supportive sub-chapters. At the end, there is a list of used references and appendix that includes the questions of the electric survey interview send to the selected seventy companies.

First chapter is an introduction chapter that gives an overview to the topic and tells a reader the purpose of this research and the way that this research will fill existing research gap in the public procurement research area. The research questions are presented, and the conceptual framework and main key concepts are introduced shortly in this chapter.

Second chapter presents the theory of this thesis, and it is the theory that gives a reader a solid theory background information before the empirical part starts. Chapter two introduces public procurement, its features and phases and different strategies that can used in public procurement. In addition, the environmental perspective and social exchange theory is presented.

Third chapter introduces the research design. In that chapter the chosen research methodology and data collection method are presented, and the reliability and validity of this empirical research are analysed. Chapter four presents the empirical findings of the research that has been conducted and illustrate results also in figures in aim to give a better understanding of the results to the reader.



The last, chapter five, includes conclusions of this thesis and answers to the research questions. It is important to be aware of the limitations of this research so the limitations are also presented in the final chapter. There is never enough research, so the suggestions for further research are presented last in chapter five in this master's thesis.

## 1.2 Literature review

This subchapter takes a glance to an existing literature related to public procurement, innovations in public procurement and the attractiveness of public procurement. Literature review makes a strong basis for the empirical research and shows the research gap that this thesis will partly fill. A literature review has been carried out extensively and the following is a presentation of the key findings of four different scientific articles.

Sönnichsen & Clement (2020) have examined green and sustainable public procurement and its path towards circular public procurement. They stated that procurer's values and beliefs have a huge influence in a transformation towards circular economy. It means that the public organizations procurers cannot always choose the lowest price because they need to also value eco-labels and more expensive but more ecological products or services. (Sönnichsen & Clement 2020.) Without an emphasis on quality criteria, it is harder to achieve ecological products because unecological products are often cheaper.

Karttunen et al. (2022) have studied from a supplier perspective the attractiveness of a public procurement as a customer. Public organization is attractive to the supplier if it brings positive expectation of future relationship with public organization. It is important to research customer attractiveness to aim better customer attractiveness of public procurement and thus get more bids from suppliers in tender competitions. If there is not enough competition between suppliers, suppliers are not that much interested to innovate and develop their operations. (Karttunen et al. 2022.)

According to Edler & Georghiou (2007) the major potential source of innovation is demand. Public procurement gives usually bigger amount of demand to the companies than private sector in typical areas like healthcare, which gives driver for companies to fulfil the requirements. There are rationales for using the public procurement as a booster of innovations which are the facts that public procurement is a major part of local demand and purchasing innovative solutions offer an opportunity for improved public services. (Edler & Georghiou 2007.)

Uyarra, Edler, Garcia-Estevez, Georghiou & Yeow (2014) have studied the barriers to innovation through public procurement from supplier perspective. The main finding was that the lack of interaction between supplier and public procurement organization is one of the main barriers to innovation. In addition, the over-specified tenders are a barrier for innovation because they limit a lot of suppliers and defines too specifically what a supplier can offer in its bid. In large organisations, the size of the contract matters and affect to the willingness to innovate. (Uyarra et al. 2014.)

This study will fulfil the research gap of customer attractiveness in public procurement. There have been previous studies of attractiveness of public procurement for example made by Karttunen et al. (2022). They studied the attractiveness of public procurement and sent a survey to the suppliers that had a contract with the national government in 2017. The data were collected in 2019. (Karttunen et al. 2022) A lot of has happened between the years 2017-2022 and it is relevant to research the topic again and further. This thesis will continue researching the topic further via survey that includes for example questions about the situation in Ukraine and its influence on suppliers and their interest rate for public procurement that have not asked in the previous studies.

This thesis' survey will send to the suppliers that has participated in a tender competition of an anonymous city located in Finland. Karttunen et al. (2022) said that their research findings do not represent the group of suppliers that have a contract only with local government and not the national government. This study will fill that gap and research the public

procurements' attractiveness of a suppliers that have a contract with cities or has participated in the tender competition before.

### 1.3 Research questions and objectives

The aim of this study is to find out the current companies' opinion of the public procurement and what factors affect negatively and positively to the attractiveness of public procurement. In addition, this study focuses on investigate and analyse how different emphasis on ecological criteria in comparison affect Finnish suppliers' willingness to innovate and be better version of themselves. The objective is to find out how much the emphasis on sustainable development criteria affect and how much, for example, the value of the procurement affects to the companies' interest in developing their own operations to become a contractual partner with public organizations like cities. This study focused only on companies operating in the southern part of Finland. Many questions of the survey are related to the inquiry as it is a very central part of the entire public procurement.

The perspective of this study is a supplier perspective. By researching suppliers' thoughts of an attractiveness of a public procurement, this study tries to get valuable information of suppliers' thoughts and behaviour of the public purchasers like cities in Finland. This research has one main research question and two sub research questions that can be seen below.

Main research question:

*What factors have a positive and negative impact on the attractiveness of public procurement?*

Sub research questions:

*Does the emphasis on environmental criteria and other quality criteria increase the attractiveness of public procurement?*

*How the emphasis on innovative solutions in scoring affects companies' willingness to innovate?*

#### 1.4 Theoretical framework

Theoretical framework combines the key concepts of this research and explains how they connect with each other. The theoretical framework of this research is presented in the figure one below.

Theoretical framework includes five different entities which are public sector, companies, state of Finland, European union, and consumers / citizens. On the left you can see two dark blue circles that demonstrates public sector and public procurement that works inside the public sector. Public sector includes central government, municipalities, joint municipal authorities, as well as social security funds (STTK 2022). The public sector produces around one-fifth and the private sector about four-fifths of GDP in Finland (STTK 2022). European Union regulate public procurement units through EU directive in the procurement that goes above the EU threshold and the state of Finland regulate public procurement through the law of procurement (Pekkala et al. 2022, 18-21). On the other hand, the citizens of Finland give pressure for public procurement units to consider ecological and social responsibilities.

On the right-hand side, companies are a unit that produces services and goods to public sector and businesses are also driven by EU's directive and state of Finland's law of procurement and ecological and social responsibility pressure from consumers (Pekkala et al. 2022, 18-21). External influences between the two parties (public procurement units and companies) give rise to an emphasis on ecological and social sustainability and a willingness to innovate.

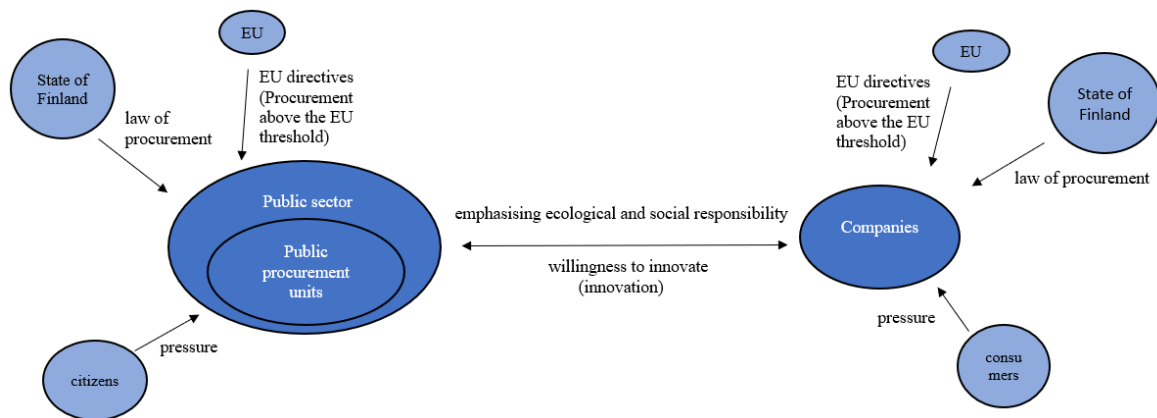


Figure 1. The theoretical framework

The key concepts of this study are public sector, public procurement, ecological responsibility, social responsibility, innovation, law of procurement and EU directive and social exchange theory. These concepts are shortly defined next in the subchapter 1.3 and some of those explained in more detail in the chapter two called public procurement.

### 1.5 Defining key concepts

*Public sector* includes central government, municipalities, joint municipal authorities, as well as social security funds (STTK 2022). The public sector produces around one-fifth and the private sector about four-fifths of GDP in Finland (STTK 2022) Public sector units are owned by the state of Finland or municipalities. Public sector units and activities are mainly financed buy tax revenue. Other financing choices are client fees, central government capital income and loans. (Elinkeinoelämän keskusliitto 2018.)

*Public procurement* means a process where public organizations buy services, goods, and construction contract. Public procurement means procurement that exceeds the national threshold which is 60 000 euros in goods and services, 150 000 euros in construction contracts and 400 000 euros in healthcare. (Pekkala et al. 2022, 18.) Public procurement is financed by taxpayers' money and thus there are a lot of regulations for public procurement units (Sandi, P.V, Rohman, M.A & Utomo, C 2020; Murray 2007). According to Pekkala et

al. (2022, 21-26) public procurement includes fourteen different stages that are implemented in accordance with the law of procurement.

*Ecological responsibility* is one element of the famous triple bottom line triangle that includes ecological, social, and economic dimensions. Ecological responsibility is better if in addition to mandatory statutory matters a company considers its own practices and develop them to be more eco-friendly. Ecological responsibility examines how effectively companies uses natural resources, how they prevent pollution and what kind of environmental management practices they have. (Zak 2015.) In Public procurement public units can mind ecological responsibility by adding ecological criteria to the minimum requirements of a service or a product and to give a better quality comparison score for example for a company that offers lower-emission truck (Pekkala et al. 2022,71).

*Social responsibility* covers the impact of the company's activities on people, to company's own employees as well as employees of subcontractors. The role of social responsibility is, for example, to guarantee fair working conditions, occupational safety, non-discriminatory organisation, and the respect of human rights. To meet social sustainability, the company must at least not cause negative impacts on their stakeholders. In the best-case scenario, the company will produce positive impact on their stakeholders, for example by distributing donations to charities and showing other companies a model of good work culture. (Liappis et al. 2019, 129-131.)

*Innovation* are new ideas that needs a further development to get from normal idea to an innovation (Ukko, Saunila, Parjanen, Rantala, Salminen, Pekkola & Mäkimattila 2016). Innovation includes commercialization, implementation and novelty and an economy with competitive organizations needs an innovation to exist (Ukko et al. 2016; Haga, 2005). Innovation is a process where opportunities offer new ideas and in practice those ideas turn out to new innovative products or services (Ukko et al. 2016). Public procurement is an important factor in promoting innovation (Pekkala et al. 2022, 99). Traditional concept of innovation relates to the generation of new materials, products, and services, whereas green

innovation refers to develop new ideas, services and goods that can be used to deal with environmental issues (Saunila et al. 2017; Li, Zheng, Cao, Chen, Ren & Huang 2017).

*Law of procurement* and special sectors provision of law of procurement are used to procurement procedures that have been initiated after the law in 2017. Before 2017 procurement procedures have been implemented with previous law of procurement and special sectors provisions of the law of procurement. (Pekkala et al. 2022, 57.) Law of procurement for example determines that public procurement needs to be transparency, non-discriminatory, proportionality, and equal (Usai 2014).

*EU directives* aims to get a more competitive European internal market. The first directives were created back in the 1970s and nowadays the Finnish procurement legislation is based on five different EU's directives. These directives are Procurement Directive (24/2014/EU), 1<sup>st</sup> the Control Directive or 1<sup>st</sup> the Legal Protection Directive (665/1989/ETY), the Specific Sectors Procurement Directive (2004/17/EY), 2<sup>nd</sup> the Control Directive or 2<sup>nd</sup> the Legal Protection Directive (92/13/ETY) and a directive on services concessions (25/2014/EU). (Pekkala et al. 2022, 26-27.)

*Social exchange theory (SET)* is a theory which states that relationship is a series of social exchanges and attraction is a fundamental construct of SET theory (Karttunen et al. 2022). Attraction level is expected rewards minus costs of being in a relationship (Tanskanen & Aminoff 2015). According the Tanskanen & Aminoff (2015) article companies should first list all the factors that affect the attractiveness and then focus on those factors that have the best cost-benefit ratio.

## 2 Public procurement

As stated before, public procurement is a process where public organizations like government departments and cities purchase goods and services from companies (European Commission 2017). Public procurement differs from private sector procurement in volumes which means that a purchase needs to exceed the national threshold to be classified as a public procurement (Pekkala et al. 2022,18). Instead of private sector, public procurement is financed by taxpayers' money (Sandi et al 2020). National threshold in Finland is 60 000 euros in goods and services, 150 000 euros in construction contracts and 400 000 euros in healthcare (Pekkala et al. 2022,18).

This chapter two presents the theory of this thesis that gives us a good understanding of public procurement and its features. First the general facts of public procurement as its features and thresholds are presented. The second sub-chapter is about strategies of public procurement and after that the most relevant part, public procurement phases, is introduced. The fourth sub-chapter is about environmental perspective of public procurement, and the last two-point five sub-chapter is about SET-theory and attractiveness. After these chapters a reader has keys to define and understand public procurement and thus are more ready to dive into the thesis' empirical part.

### 2.1 Features of public procurement

There are four common features of public procurement which are the principle of non-discrimination, the principle of transparency, the principle of relativity and the principle of equality (Julkisten hankintojen neuvontayksikkö 2016a). These features are illustrated in the figure two below.



The principle of non-discrimination means that public procurement cannot discriminate anyone, and it should be as open as possible to participate for everyone. It means that public procurement unit needs to treat everyone the same and for example, a bidder cannot be excluded just because of one's own preferences. (Julkisten hankintojen neuvontayksikkö 2016.) If the tenderer is excluded, there must be comprehensive reasons for this (Pekkala et al. 2022). More information on the exclusion criteria is found in the subchapter 2.2. The principle of non-discrimination demand that the decision of a purchase needs to base on pre-established selection and comparison criteria and those are used in the same way for every bidder.

The principle of equality is almost the same than the principle of non-discrimination. The main idea of this principle is that everyone is treated the same way (Julkisten hankintojen neuvontayksikkö 2016a). The offer comparison should only be based on offers that have arrived on time and rules that have informed in advance (Usai 2014). Tenderers may not improve their tender after the deadline and bribery is forbidden. The principle of equality demands that the tender cannot put providers in an unequal position. (Julkisten hankintojen neuvontayksikkö 2016a.)

The principle of transparency is the key to public procurement. The name includes the word "public", and it means that information on the procurement procedure shall not be a secret. The principle of transparency demands that information of procurement procedure is not private, the procurement is announced publicly, the tenderers are informed of the results of the tender competition and that the procurement documents are, in principle, public. (Julkisten hankintojen neuvontayksikkö 2016a; Sandi et al. 2020.) New invitations to tender will also be announced in public channels Hilma and TED depending on the feature of the tender. If the procurement is above the national threshold, then it will publish in Hilma channel and if its value exceeds the EU threshold it will publish also in TED channel (Julkisten hankintojen neuvontayksikkö 2022a.)

The principle of relativity means that the requirements of the procurement procedure are proportionate to the objective pursued (Julkisten hankintojen neuvontayksikkö 2016a). For example, if the unit's goal is to purchase sewing machine the requirement of offer company's turnover cannot be as high as what it would be when purchasing doctors to the local health station. Purchasing unit needs to carefully consider what requirements are relevant to ensure good quality of a wanted service or goods.

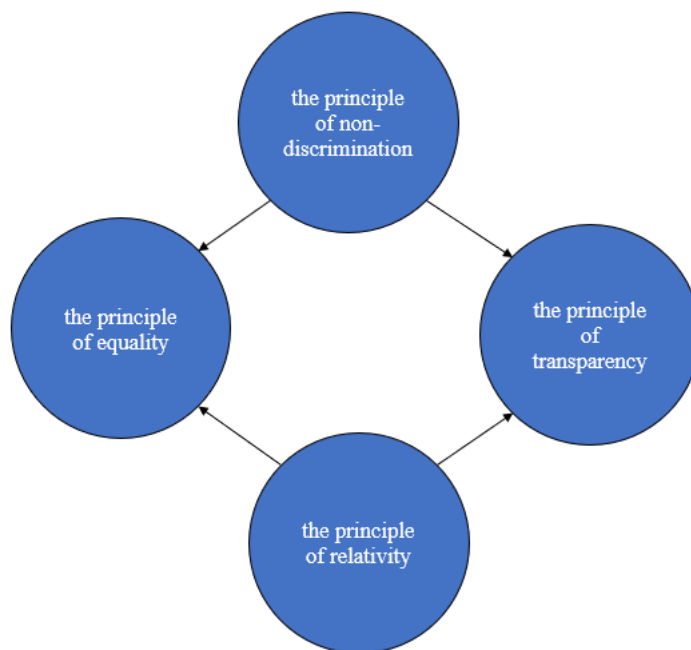


Figure 2. The four principles of public procurement (paraphrase information of Julkisten hankintojen neuvontayksikkö 2016a)

### 2.1.1 Thresholds

One big feature is the value of the procurement. A purchase must exceed the national threshold to be classified as a public procurement (Pekkala et al. 2022, 18; Julkisten hankintojen neuvontayksikkö 2022b). In the table one below the different values of public procurement are illustrated. The threshold value differs depending on the purchasing unit. This thesis focusses on other contracting authorities like cities and cities national threshold on goods and most of the services are 60 000 euros (Julkisten hankintojen neuvontayksikkö 2022b). If the value exceeds 215 000 euros, the purchase is classifying as EU purchase and

must announced in the information channel called TED (Pekkala et al. 2022, 32-33). Other values can be seen in the table below.

Table 1. Thresholds of public procurement

| Type of procurement                                 | Threshold (€)                |          |                               |          |
|---|------------------------------|----------|-------------------------------|----------|
|   | Central government authority |          | Other contracting authorities |          |
|   | EU                           | National | EU                            | National |
| Goods and most of the services                      | 140 000                      | 60 000   | 215 000                       | 60 000   |
| Building contracts                                  | 5 382 000                    | 150 000  | 5 382 000                     | 150 000  |
| Works concessions                                   | 5 382 000                    | 500 000  | 5 382 000                     | 500 000  |
| Design contests                                     | 140 000                      | 60 000   | 215 000                       | 60 000   |
| Health and social services (Appendix E procurement) |                              | 400 000  |                               | 400 000  |
| Another special services (Appendix E procurement)   |                              | 300 000  |                               | 300 000  |

Figure 3 below illustrates the categorization of procurement by value. There are three categories: small-scale procurement, national procurement, and EU procurement. Small-scale procurements are usually done with the procurement's units' own principles and instructions. Small-scale procurements are procurements that's value is below 60 000 euros and thus there are less bureaucracy and notification obligations. (Pekkala et al.2022, 32-33; Julkisten hankintojen neuvontayksikkö 2022b.)

The second level is national procurement which includes purchases between 60 000 euros and 215 000 euros in cities. National procurement has more bureaucracy and notification obligations. (Pekkala et al. 2022, 32-33; Julkisten hankintojen neuvontayksikkö 2022b.) Cities needs to inform everyone from their tender competitions in HILMA information channel if the 60 000 euros threshold is exceeded. Hilma is an electronic public procurement notification channel owned by the Ministry of Finance and maintained by Hansel. All notices of EU-wide and national procurements are notified in Hilma and small-scale procurements can be notified in Hilma. Third and the highest level is EU procurement that's threshold is 215 000 euros in goods and services. Eu procurement has the highest bureaucracy and highest values. EU tender competitions must be informed in Hilma and in TED channel which is EU-wide information channel. (Julkisten hankintojen neuvontayksikkö 2022a.)

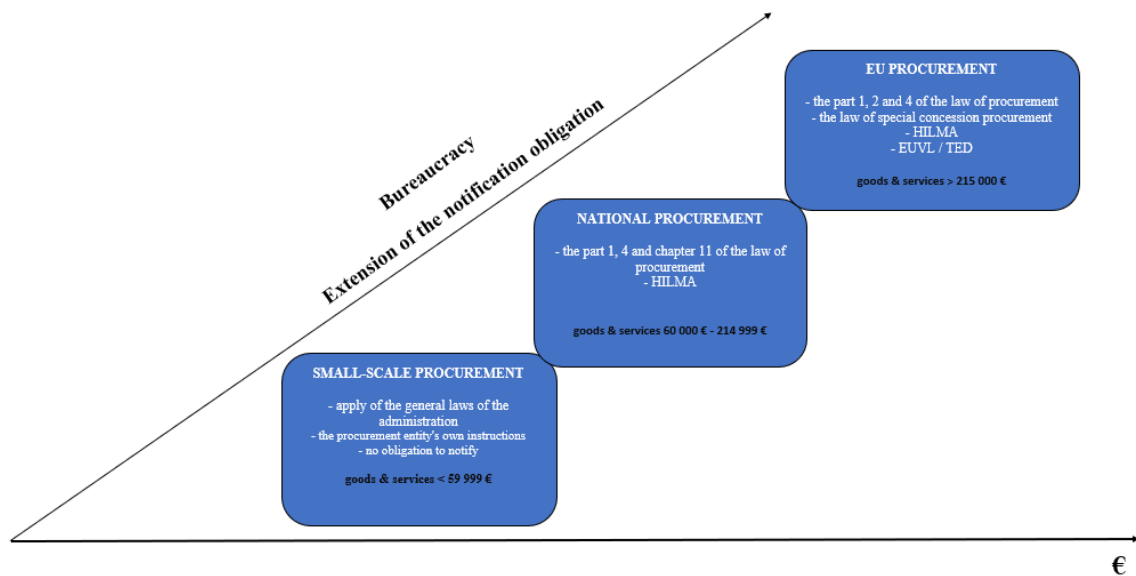


Figure 3. Categorization of public procurement (referring to Pekkala et al.2022)

## 2.2 Strategies of public procurement

There are different strategies to choose when doing EU public procurement (Pekkala et al. 346-352.) All the strategies are shown in the figure four below. The most used procedures are on the left and more rare procedures on the right.

Perhaps the most used EU procurement procedure is open procedure. It means that there is a published notification of the procurement with all the tender material available on the internet. Anyone can make a bid, and it is not negotiated afterwards. (Heijboer & Telgen 2002; Pekkala et al. 2022.) Procurement unit compare tenders, check that suitability criteria are filled and make a procurement decision. After the 14 days complaining time, procurement unit make the contract with the winner company. The open procedure can be used both in goods and service tender's competitions. (Pekkala et al. 346.) In the limited procedure, the invitation to tender and its appendices are published online, and companies can submit a request to participate. A procurement unit select the most suitable tenderers to the official tender competition and after this, the final steps will be the same as in the open procedure. (Pekkala et al. 2022, 346-348; Heijboer, G.J & Telgen, J. 2002.)

A framework agreement is a form of contract which means a contract between one or many suppliers. The framework agreement is not a procedure for an individual procurement, but a kind of pre-selected supplier register. The framework agreement can be conducted for example by using open procedure method. Framework agreement consist of two stages. In the first stage invitation to the tender is published, tenders made a bids, suitability criteria checked and the winners tenderers are accepted into the framework agreement. In the second stage is the actual procurement stage that is called lightening tendering phase. Those admitted to the framework agreement will be sent a detailed invitation to tender, and tenderers will submit their revised tenders. In a lightened tendering process, written tenders are submitted and the best will be chosen according to pre-announced criteria. If the content and terms of the procurement have already been decided in binding manner in the first stage, separate competitive tendering is no longer needed, but the product or service is ordered directly from those selected to the framework agreement in accordance with the order of priority or other pre-announced determining conditions. It can mean for example that the orders from zero to 10 000 euros can be ordered directly from the supplier that is in the first place in priority order and if the order value exceed 10 000 euros, the lightening tendering is conducted with all suppliers within the framework agreement. Framework agreement may be valid for up to four years. (Julkisten hankintojen neuvontayksikkö 2022c; Pekkala et al. 349-350; Pekkala et al. 464-466.) Framework agreement can be used to achieve administrative efficiency because with that procedure the procurement unit can get multiple contracts at the same time instead of needing to repeat the similar or exactly same tendering process (Giosa 2020).

Dynamic purchasing system reminds of framework agreement and is two stages procedure (Pekkala et al. 2022, 544-545). Dynamic purchasing system is good procedure for bulk goods or services (Giosa 2020). In the first phase all eligible bidders will be accepted into the register and after the register is being conducted, the procurement unit can ask more specific offers from the companies and chose the best offer. Dynamic purchasing system differs from framework agreement in a way where new companies can be accepted during the duration of the register meanwhile when in a framework agreement new companies cannot be accepted during the contract season. (Pekkala et al.2022 544-545.)

Planning competition is being informed with the procurement notification and the procurement unit can choose whether they allow everyone to participate or whether they restrict the participating number. The winner of planning competition is chosen by impartial jury and participants may be awarded with money. (Pekkala et al. 350.)

The possibilities of using direct procurement are very limited and its use must always be justified. The procurement procedure used depends on the value, subject matter and complexity of the contract, the criteria for selecting the contract and the number of tenderers on the market. (Pekkala et al. 2022, 351.) The direct procurement can be used for example in the situation where a procurement unit have not got any offers in the public tender competition (Parikka & Pökkylä 2011). In direct procurement, offer can be made for as many companies as the unit wants and terms can be discussed (Pekkala et al. 2022, 351).

Electronic catalogue is usually used in bulk products where a tenderer can for example list all their online shop products as a offer (Pekkala et al.2022, 542-543; Varney 2011). Cost reductions can be achieved when using e-catalogues in bulk products purchasing processes (Varney 2011). A procurement unit needs to inform tenderers in the procurement notification if they are going to use electronic catalogue. For example, the lightening competition can be conducted as electronic catalogue inside the framework agreement. (Pekkala et al. 556-557.)

Electronic auction is a two stage procedure where the number of participants is restricted. For example, electronic auction can be used when purchasing bulk food products. In that situation, chosen tenderers send a procurement unit their electronic catalogue and in the day of the electronic auction, tenderers make their bids within the terms and predetermined time frame. (Pekkala et al. 2022 542-543.) According to Varney (2011) the electronic auction can be based either solely on price or on prices and values of features in tenders that have been submitted. Usually, the cheapest price is the chosen method. It means that at the end of the electronic auction, the cheapest price wins the competition, and the procurement unit makes the purchasing decision of making a contract with the supplier that offered the cheapest price. (Varney 2011.)

Innovation partnership is two stages procedure that can be used if there is not a ready solution in the market. It should be informed, when creating innovation partnership and the procedure prolongs the same way than negotiated procedure. First a single or couple companies are chosen to be innovation partners and the development work begins. If the development work produces a functional product or a service, it can be purchased directly from the innovation partner. (Pekkala et al. 2022, 349.)

Negotiated procedure is used in non-bulk products or services, for example in the procurement of an ICT system. The procurement notification is published with specific requirements that can not be fixed during negotiations. Tenderers send a require participating and procurement unit choose the best tenderers into negotiation phase. A procurement unit send on invitation to negotiation stage for the best tenderers and tenderers send their preliminary offer. Negotiations are taking place and in the negations the content and terms of the procurement are discussed, and bidders can be dropped gradually until the winner is clear. Then a procurement unit sign a contract with the winner. (Julkisten hankintojen neuvontayksikkö 2016b; Pekkala et al. 348-349.) Competitive negotiated procedure differs from negotiated procedure in a way where the primary objective of competitive negotiated procedure is to find a solution model for the needs of a procurement unit. (Pekkala et al. 349.)

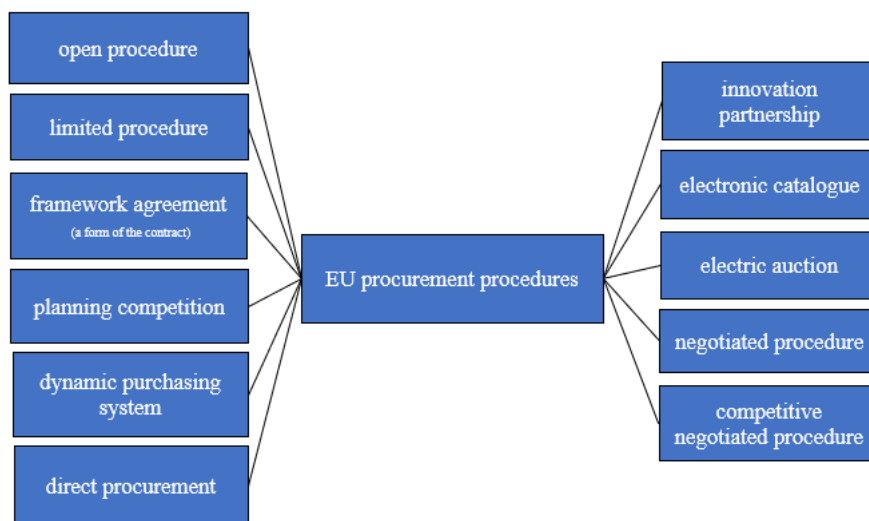


Figure 4. EU procurement procedures

Every year around 2 trillion euros are spent in public purchases by over 250 000 public authorities in the EU area. Public procurement has huge volumes and thus huge potential to influence on market and society. (European commission 2022.) Green public procurement is an important policy instrument towards more sustainable production and consumption (Blome, Hollos & Paulraj 2014).

### 2.3 Public procurement phases

Public procurement is a project that can approximately last five to nine months from start to the beginning of the contract season. The process includes a lot of bureaucracy and predetermined periods of the time that prolong the process.

Pekkala et al. (2022) have introduced fourteen different public procurement phases in their book that were released in 2022. According to Pekkala et al. (2022, 21-27) public procurement phases are:

- 1) procurement strategy and guidelines
- 2) mapping of procurement needs (technical dialogue) and procurement planning
- 3) selection of the procurement procedure
- 4) preparation of the inquiry
- 5) publication of the procurement notices and publication of the inquiry
- 6) preparation of tenders
- 7) receiving and opening the tenders
- 8) verification of the suitability of tenderers
- 9) comparing offers
- 10) making a procurement decision
- 11) informing the companies that have offered
- 12) creating and signing the contract
- 13) publication of the contract award notice
- 14) performance of the contract / contract season



According to Holma, Vesalainen, Söderman & Sammalmaa (2020) public procurement is generally divided only into three different main phases which are pre-tender, tender, and post-tender phases. This thesis will deal the public procurement process as a process with five different main phases and thus more easily gain for the reader an understanding of the process. These five main titles of different phases are planning, preparation, competitive tendering, finalisation of the contract and contract management. Further on, the five steps of the public procurement process are introduced.

The first phase is planning. Planning includes settling the work order, selecting procurement strategy and procurement procedure, and getting to know the upcoming procurement project (Patras & Banacu 2016; Pekkala et al. 2022, 20-21). In addition, it is important to identify whether there are potential partners who want to be involved in the procurement project for example another city or subsidiary (Pekkala et al. 2022, 20-21).

The second phase is called preparation where purchasing unit is preparing materials for invitation for tender. These materials are for example the description of the wanted procurement good or service that includes the defined specifications including technical as well as functional specifications, different forms like contact information forms and subcontractor form and the document of the terms and conditions of the contract. (Patras & Banacu 2016; Pekkala et al. 2022,22.) In this phase it is important also conduct a market dialogue whether face-to-face or via email to gain information from potential companies (Pekkala et al. 2022, 22.) Market dialogue can be also for example supplier conference, annual supplier days or technical dialogue. With the market dialogue, suppliers have a chance to influence on procurement unit's planned requirements for the tender and bring out their own perspectives. (Holma, Østensen, Holmen & de Boer 2022.)

This preparation phase ends into the point where the tender is published and then the competitive tendering phase starts (Pekkala et al. 2022, 23). In the normal good or services tender competition where the open procedure is used, the time limit for receipt of tenders is 35 days from the date on which the contract notice was sent (Finlex 2016). It demands that all the tender materials are available on the internet (Pekkala et al. 2022, 23). During the

offer period there are stage called questions and answers where companies can ask questions of the tender invitation and the procurement unit needs to give an answer to those questions. This is an opportunity to get clarifications, but the changes themselves will no longer be made unless the tender invitation is taken into repair mode which is not recommend. (Upphandlings myndigheten 2022.)

In the third phase the offer period passes. The offer period must be at least thirty-five days in open procedure. The time for applying for participation in limited procedure and at the stage of setting up a dynamic purchasing system must be at least thirty days. After the offer period, the offers or applications have come, they are opened after the deadline and compared in open procedure and checked in limited and dynamic purchasing system procedure. After comparing the offers in open procedure, the companies that will win this competition will checked that they meet all the suitability requirements. In limited procedure and dynamic purchasing system all the applications are checked that they fulfil the requirements. These suitability requirements can be for example empty procurement criminal records, taxes paid, occupational health organized and for example different requirements of employees working experience and education. (Finlex 2016.) Usually, procurement units checks that all the winning companies fulfil the suitability requirements before making and publishing the procurement decision, but the procurement decision can be made also as conditional. (Pekkala et al. 2022, 25.) The contract cannot be signed before it has been checked that all the suitability requirements are met. For contracts above the EU threshold and for Annex E services or concessions above the national threshold, the contract may be sign no earlier than fourteen days after the candidate or tenderer has received or is deemed to have received the decision and address for appeal. If complaints do not arrive within the deadline, contracts can be signed with selected companies. (Finlex 2016.)

The fourth phase is finalisation of the contract which includes things like making ordering instructions, updating contract information in systems and publication of the contract award notice. A contract award notice is a notice published after the award of a contract for a contract that exceeds the EU threshold. (Pekkala et al. 2022, 579.) The main purpose of the contract award notice is statistical, and it informs the names of the winning companies, the

price of the contract awarded, the information of what was purchased, which procedure was used and what were the settled criteria (Yu, Morotomi & Yu 2020). The fifth phase is contract management that lasts usually four to seven years. During the contract management phase activities like buying goods and services are made and perhaps meetings with the supplier depending on the procurement type. In addition, the contract management tasks like price increases calculations and company arrangements are investigated in the contract season. All the procurement phases can be seen in the figure five below. (Pekkala et al. 2022, 26.)

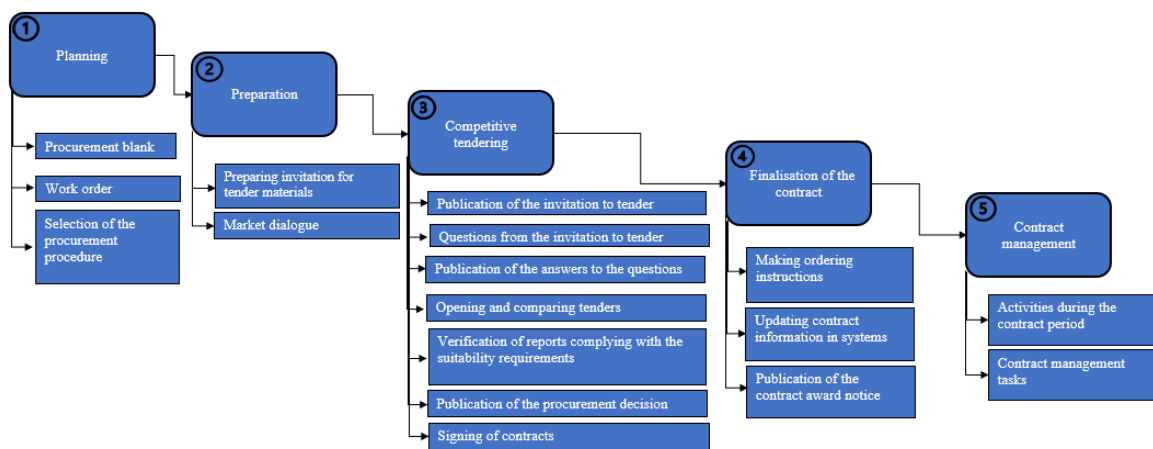


Figure 5. Public procurement phases (According to own working experience & Pekkala et al. (2022))

## 2.4 Environmental perspective

Every year around two trillion euros are spent in public purchases by over 250 000 public authorities in the EU area. Public procurement has huge volumes and thus huge potential to influence on market and society. (European commission 2022.) Green public procurement is an important policy instrument to gain more sustainable production and consumption. The emphasis of environmental criteria has gained importance in public procurement competitions because with it the efficient use of natural resources and better quality of life can be promoted. (Pacheco-Blanco & Bastante-Ceca 2016.) According to Bala & Ysern (2008) public procurement units need to point a way in green management and in changes of products and services to greener ones.

Public procurement can be called green public procurement (GPP) if the environmental perspective is taken account well and then GPP is an environmental policy tool for sustainability. Green public procurement can be used to reduce environmental pollution, encouraging companies to implement green production and innovations, and guiding green consumption by the public. (Liu, Shi, Xue & Wang (2019.)

Green public procurement requires that environmental criteria is emphasised in the tender competition which requires that technical specifications are considered, and the procurement specialists are trained and aware of environmental issues. A procurement unit can for example require eco-labels for the products that they are purchasing but meanwhile they need to treat all tenderers equally, which means that the requirements cannot be too specific. Including environmental criteria in the purchasing of services and goods can be called also as sustainable public procurement. (Stritch, Bretschneider, Darnall, Hsueh & Chen 2020.)

The easiest way is to set up sustainability criteria for product that all tenderers must have to ensure that the winning company will be at least in that sustainability level. (Caranta 2013.) Sustainability criteria can include for example a rule that a certain harmful substance must not be present in the product, or the services cars must be hybrid or electric cars. In addition, sustainability criteria can be for example the requirement that the purchased lights are energy-efficient lights above a certain energy-efficiency level (Stritch et al. 2020).

Money is an obstacle to a stronger emphasis on environmental criteria. Often the more ecological products or services are expensive than other products or services and thus under the guise of economic reasons, the cheapest product is chosen instead of the ecological product. (Testa, Annunziata, Iraldo & Frey 2014.)

## 2.5 The SET theory and buyer attractiveness

Social exchange theory (SET) is a theory which states that relationship is a series of social exchanges and attraction is a fundamental construct of SET theory. If the supplier sees the future with the public organization in positive light, it means that the supplier thinks that public organization is attractive as a customer. (Karttunen et al. 2022; Schiele, Calvi & Gibbert 2012.) Attraction is based on expectations and beliefs (Schiele et al. (2012). Attraction level is expected rewards minus costs of being in a relationship (Tanskanen & Aminoff 2015). Attraction is crucially influencing how investments are made in the relationship (Harris, O'Malley & Patterson 2003).

The buyer attractiveness aims to increase supplier dedication to the buyer in relation to supplier's other customers (Tóth, Thiesbrummel, Henneberg & Maude 2014; Hald, Cordón & Vollman 2009). In the article written by Makkonen, Vuori & Puranen (2016), supplier satisfaction, value and the preferred customer status are the buyer's actions outcomes to create better attractiveness in the eyes of suppliers. According to the Tanskanen & Aminoff (2015) article, companies should first list all the factors that affect the attractiveness and then focus on those factors that have the best cost-benefit ratio.

### 3 Research design

In this chapter the research design is being presented. First this thesis introduces the chosen methodology that are being used to analyse the collected data. Then the data collection plan is being introduced. There are different methodologies that can be used for different kind of studies. This study is conducted as a qualitative study.

#### 3.1 Empirical research process

This thesis has first an introduction part and then the theoretical part where all the common thing related to public procurement are presented. Leaning on the theory part, this thesis can move on to the empirical part and the figure six below presents the nine process stages of this empirical research. Empirical research starts with market research and understanding of the current situation that is presented in this thesis in the chapters one and two. After theory, the most suitable research design and data analysis method can be chosen. This research is conducted as qualitative research using content analysis. It is also important to evaluate reliability and validity to get a better understanding of the research and its implications.

Step four is creating survey questions. This step needs enough time to consider the questions and think about what this research wants to find out with these questions. After carefully conducted survey questions, the survey can be sent to the chosen interviewees. Step seven is the part where survey answers are gathered, analysed, and summarized in the chapter four called empirical findings. Last, the conclusions are drawn, and research questions are answered.

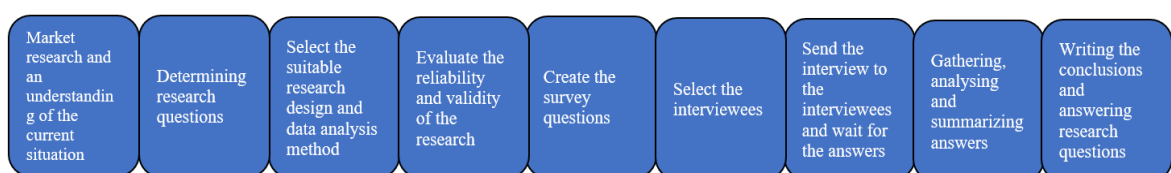


Figure 6. The empirical research process

### 3.2 Methodology

This study is conducted as a qualitative study with qualitative data. Instead of analysing numbers and different test results, it is typical to investigate and analyse different kind of texts like interview transcripts and fieldnotes, and documents while creating new ideas and perspectives from them. Also pictures and videos can be analysed by qualitative research. (Saldana 2011, 3-4.)

The goal of a qualitative research depends on the character of an individual research and the results of qualitative research can be an evaluation of effectiveness, new insights, observations and better understanding about society and individuals. (Saldana 2011, 3-4.) Qualitative research aims to expand current knowledge and to create better understanding of and phenomena (Andriopoulos & Slater 2013; Tuomi & Sarajärvi, 2018, 25). Qualitative research is used in many disciplines including sociology, education, business, journalism, and health care. (Saldana 2011, 3-4.)

Qualitative research has different genres which are a literary genre, ethnography, grounded theory, phenomenology, case study, content analysis, mixed methods, narrative inquiry, poetic inquiry, arts-based research, autoethnography, evaluation research, action research, investigate journalism and critical inquiry. (Saldana 2011, 4-21.) All these genres are not now present but for example grounded theory tries to create usually via interviews a new theory and not just confirm the already existing theories while mixed methods uses both qualitative method and quantitative method (Saldana 2011, 4-21; Mello & Flint 2009).

### 3.3 Data collection method

Interviews, observations, and queries are three most used methods for collecting data in qualitative research (Metsämuuronen 2001). In this thesis, the primary data is collected by using structured interviews in a written form via email. Most of the qualitative research uses interview to gather qualitative data that can be used to get a deep understanding of the case (Farquhar 2012).

Interviewee process includes steps five to nine in figure six presented above. First the survey questions are created based on the problems that occur in the theory and in the practical working life. Then the data is collected from the selected interviewees via email. The selected interviewees are companies with different backgrounds. This survey was sent to the different size of companies, with different volumes, turnovers, rate of employees and the business in different disciplines. In total, the survey was sent to seventy different companies via email. All participating companies have participated in public procurement tender competitions. The collected survey answers are gathered and analysed anonymously via Microsoft Forms tool.

The survey consisted of seventeen questions. There were four multiple selection questions and thirteen open questions. At the end there were a box for companies to leave their message and open opinion of the topic, if wanted. The survey was sent to Finnish companies operating in the southern part of Finland and the questions were asked and the answers were gathered in Finnish. The first two questions were multiple choice questions that gave the background information of the respondents which included the turnover of the company and the number of employees of the company. These were easy questions to the responder and thus gave an easy start for them.

Third question jumped right to the topic, and it asked the general opinion of the companies whether it is easy or not to bidder in tender competitions. The questions asked also that which factors affect most to the attractiveness of public procurement and what is the biggest reason why the company is not interested in a certain tender competition. In addition, there was a question about equity between companies in tender competitions and general question of the nature of the requirements that has imported in the tender. The emphasis level of quality and price were discussed in the question ten and question nine asked companies' opinion of the situation where procurement unit could give more points of bidder company's ecological choices in quality comparison.



Questions eleven and twelve addressed innovation and companies' willingness to innovate in different situations. Question eleven were more general and asked about innovations in general whereas question twelve limited the term innovation to mean a new technology. Question thirteen and fourteen were multiple selection questions that aims to get a general knowledge of companies' opinion of option periods and on the number of clients that order via one contract. Question fifteen was a question about procurement methods and companies' opinions of them. The question fifteen aimed to understand which method is companies' favourite and what are the reasons behind the choices. Question number sixteen allowed respondents to give development ideas on how to develop tenders to gain bigger attractiveness for public procurement tender competitions. The last specific question was about the situation of Ukraine and how it effects on companies' businesses and the attractiveness of public procurement. The last question, eighteen, was a free word on the subject where respondents had the opportunity to say anything related to the topic. All the questions are shown in the appendix one.

### 3.4 Data analysis method

Data is analysed by content analysis. Content analysis is a family of procedures which are used to analyse systematically the content of different texts. The source of data in content analysis can be open-ended questions, interviews, books, articles, and newspapers. (Klenke 2016.) This thesis uses interviews with multiple selection questions and open-ended questions to get a deeper understanding of companies' thoughts related to public procurement.

Content analysis is objective and systematic research method that aims to quantifying and describing phenomena and the research questions specifies what to analyse and create (Schreier, 2012; Elo & Kyngäs 2008). Content analysis can be conducted inductively or deductively (Klenke 2016; Elo, Kääriäinen, Kanste, Pölkki, Utriainen & Kyngäs 2014). Deductively generated content analysis tests a theory by collecting and investigating empirical data. Inductively generated content analysis collects and analysis data and after that tries to generalization specific answers to larger group and to explain the observations

in real working life. (Naumovska & Zajac J. 2022.) Inductively content analysis is used in this thesis.

### 3.5 Reliability, validity, and limitations

Reliability tells us how reliably and repeatable used research method measures the desired phenomenon. The research has good reliability if it can be done again with the same indicator and lead us to same results if other relevant factors does not change. (Abowitz & Toole 2010; Koppa 2022.) In this research, the research process is openly told and the questions of the questionnaire can be found in the appendices, so the research is repeatable and reliably.

Validity is another evaluation criteria. Validity evaluates how well a researchers' conclusions match the conducted research (Koppa 2022). Validity could be better if the sample would be larger, but the qualitative analysis and content analysis method is accurate to measure answers and drawn conclusions to the research questions. Only the generalising will suffer a bit.

This research as every research has its limitations. This research is conducted only in Finland, and it is investigating only the Finnish companies' thoughts and manners related to Finnish public procurement. In addition, the survey is sent only to the companies that has participated into public procurement tender competition here in Southern Finland. This challenges the reliability of generalising the results to the other part of Finland. The sample is quite small including twelve answers and it also effects to the reliability of generalising the results. On the other hand, twelve responses are quite good number because the survey was sent only for companies operating in the southern part of Finland and the survey included a lot of open questions and thus it is more like an interview than normal surveys are. However, there could be more distribution in the answers if the sample would be larger. The results cannot be generalized fully to other countries.

## 4 Research findings and discussion

In this chapter the research findings are illustrated and explained. Research findings are based on the collected answers of the survey that was sent to seventy companies operating in the southern part of Finland. Twelve responses were gathered. The survey contained seventeen questions and next, the seventeen questions are told, and the answers illustrated with figures and explained in sentences. At the end of this chapter four there is a paragraph of recommendations to the firms in the light of these results.

The qualitative survey was sent to all kind of companies in all kinds of fields to obtain as general answers as possible. Twelve answers were gotten and mostly from companies that have 10-250 employees (total 8 answers). Three answers came from micro companies with only 0-9 employees and one answer came from large company with over 250 employees. You can see the distribution of the size of the company from figure seven below.

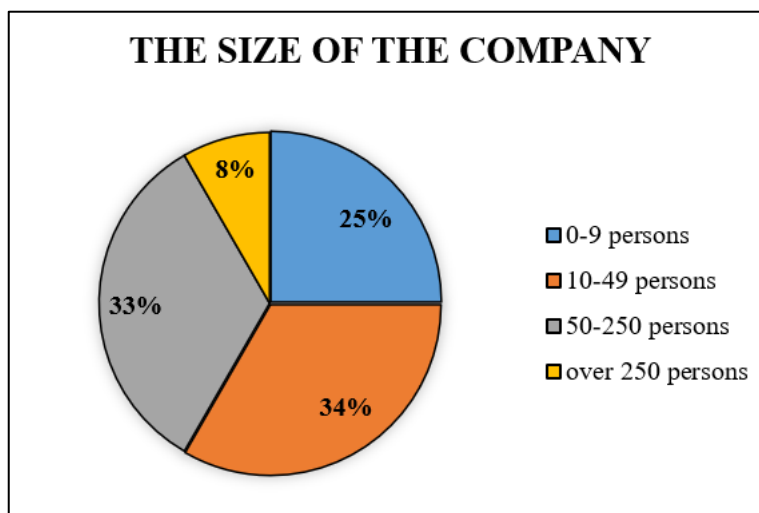


Figure 7. The size of the company

The distribution of turnover is small. Eleven companies that responded have over 2 million euros annual turnover and one respondents' turnover is one million – 2 million euros. The distribution of turnover of the respondents can be seen in the figure eight below. Couple of smaller companies contact persons contacted me and told me that they would not answer the survey due their small business. They though that they do not know enough about the subject to be relevant responders.

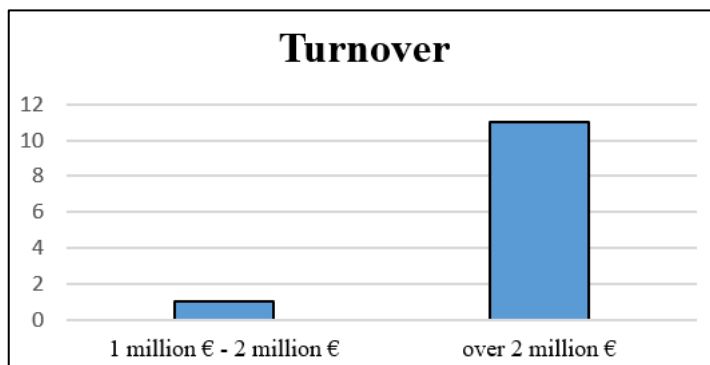


Figure 8. Turnover of the respondents

The third question of the survey was a general question that aims to survey the overall companies' opinion of the level of complexity of bidding for tenders. The distribution of opinions can be seen in the figure nine below. Forty-two percent of the answerers said that it is relatively easy to bid for tenders while forty-two percent finds it difficult. Sixteen percent of the answerers (two companies of twelve companies) thinks that it varies according to the procurement unit. One company thinks that relatively the tenders are clear, and it is easy to bid for them if the company puts in a little effort and learns the basics of public procurement. Some companies think that bidding for tenders is technically easy and only the unrealistic or unclear requirements makes it a little hard. In addition, unclear comparison criteria, came up in the responses as complicating factor.

Two companies think that it varies depending on the procurement unit. Some procurement unit makes clear tender materials when other units have made the materials in rush including perhaps even mistakes and things that show the unprofessionalism of the procurement unit in the specific field. Three companies find it hard to bid for tenders because some of them felt that unnecessary things are asked, and too special requirements are inputted. Those

unnecessary things could be perhaps the questions related to corruption and fraud that the law of procurement quantity to ask for, but which may seem unnecessary and irrelevant to the bidder company. In addition, requirements of specific references find hard to fulfil.

Companies want to extend the time frame from which references can be collected and reduce the number of references required. In general, many of the respondents want to have more time to leave the questions and the actual offer. Companies want to have more time to get to know the tender materials before the deadline for questions are and perhaps to have two rounds of questions to get the chance to ask complementary questions. Some tenders require designated persons already at the tendering phase which make pressure for companies to find the relevant persons in a short time in some fields. If companies could name the persons in the later phase, then the procurement unit could get more offers from more companies. Answers to the third question can be seen in the figure nine below.

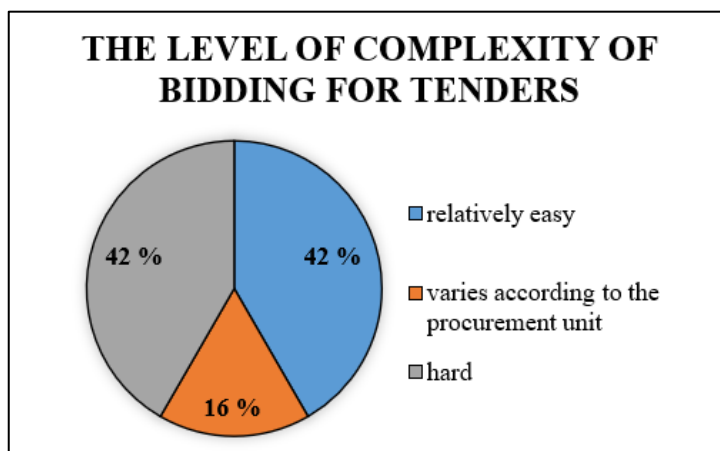


Figure 9. The level of complexity of bidding for tenders

The fourth question asked companies about the reasonableness of the requirements imposed. The distribution of answers can be seen in the figure ten. Combined seventy percent of the answers thinks that the imposed requirements are generally or sometimes unreasonable. That is quite huge percent of all answers and need to be considered. Only eighteen percent thinks that requirements are reasonable or generally reasonable. One participant state that generally the requirements are reasonable but sometimes in relation to the size and complexity of the wanted service, the requirements of for example of turnover and references are too high.

Preferring a unique vendor and too big and rare references stands out in the answers as factors that respondents quantify as unreasonable requirements. Respondent companies think that procurement unit usually tries to make requirements too specific to ensure that their favourite potential offer company wins the tender competition. Companies would like to facilitate reference requirements so that more companies can offer their service. In addition, the time for submitting tenders is also felt to be too short. The setting of ecological requirements is felt to discriminate some bidders.

The requirements regarding the education level and working experience of the personnel are also considered unreasonable. Sometimes inquiry demand too many working experience years of the company's personnel even if the needed job can be done with less experienced persons as well. As a result, offers become unnecessarily expensive, given the complexity of the work. In addition, the price cap and unreasonably high sanctions are also perceived negatively amongst respondent companies. Answers to the fourth question can be seen in the figure ten below.

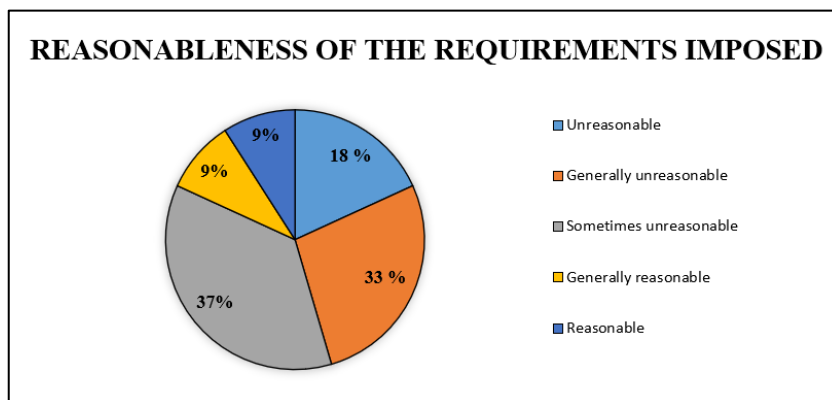


Figure 10. Reasonableness of the requirements imposed

The main research question's purpose is to find out what factors affect the attractiveness of public procurement. Survey's question seven asked that from the companies and the results can be seen in the figure eleven below. Clarity, scope, and the location of the contract affect the most to the attractiveness. Companies want to offer if the service or good which is the

subject of the inquiry is in an area that is favourable to them. For example, area where a lot of people are living is usually a thing that affect positively to the attractiveness of public procurement because in that way a company can expand their market field more easily and recruit employees when needed easier than in sparsely populated areas.

In addition, the scope of the contract or the value of the contract is obviously very important to the companies. Usually, the higher the value of the contract is, the more interested the companies are if we talk about from the view of big companies. Clarity is stated also as important factor. Companies wants clear documents, open and fair rules and inquiries that contain sensible entities.

Bad reputation of public procurement is also mentioned in the answers. Public procurement does not always have the best reputation and procurement units should influence these perceptions to gain better courage for companies to participate in public procurement inquiries. Trainings, seminars, and open interaction would be good ways to improve the reputation of public procurement among companies. Solvent payer and continuity are factors that affect positively. Companies appreciates the fact that they can rely that public procurement units pays bills on time and that the contract, and thus revenue streams, will last, for example, four years. This will give companies financial security.

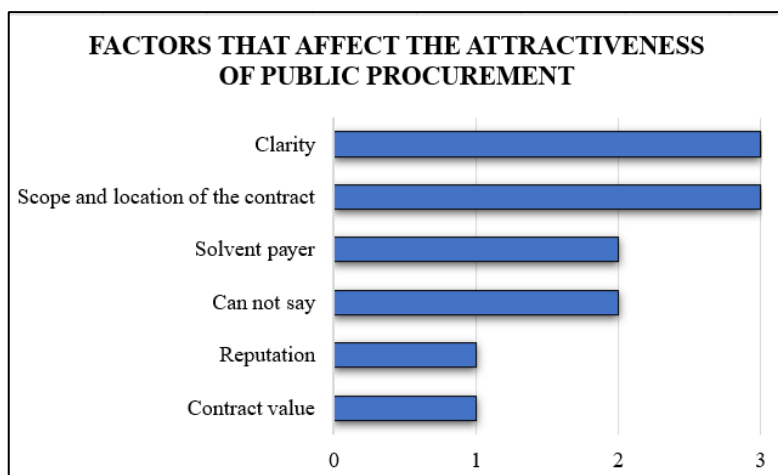


Figure 11. Factors that affect the attractiveness of public procurement

The question about bidders' possible unequal position shared opinions. Fifty percent of the respondents feel that bidders are always or generally in unequal position. Twenty-five percent feel that bidders are sometimes unequally treated and eight percent which means one respondent did not want to take a stand. Seventeen percent is happy with the current situation and felt that bidders are treated equally. Answers are seen in the figure twelve below.

The reasoning behind the responses of those who felt that the position of tenderers is unequal raised the same issues as in previous questions including for example unreasonable reference requirements that put bidders in unequal position. The new insights are the insight of situation where inquiry does not include enough small sectors. As a result, small and medium-sized companies are unable to participate, as the projects and requirements required due to the lack of sub-sectors are too large for their businesses. As a solution to this problem some small companies have started to use subcontracting relationships with other companies or has formed alliances with other companies to ensure their ability to offer to large tender competitions also. Another new insight that raised from answers where situation where procurement unit has accepted a single company's product and reject a similar product from another company without sufficient justification according to the rejected company's opinion. This have made companies to feel unequal.

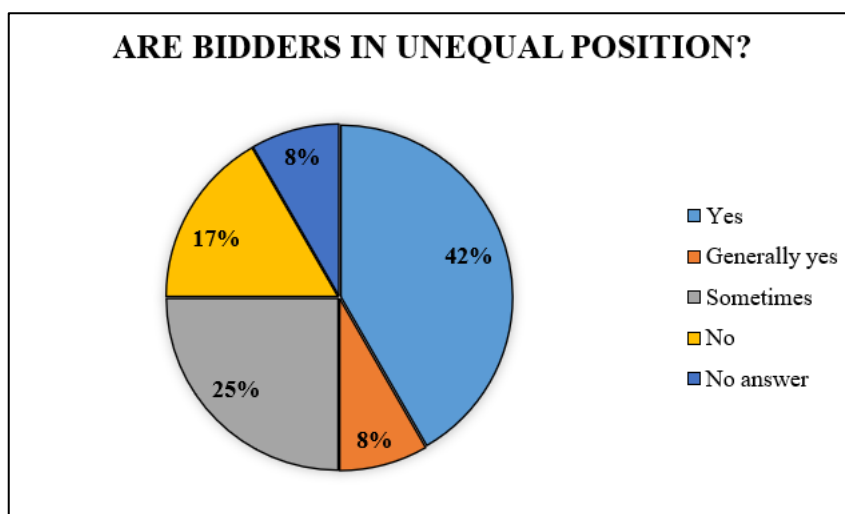


Figure 12. Are bidders in unequal position?



The biggest factors that affect negatively to the attractiveness of public procurement are unrealistic requirements and too harsh price competition. In addition, unclarity and preferring a specific vendor affect negatively. Due to unclear documents, some tenderers may not leave an offer. In addition, unrealistic requirements and sanctions affect negatively. Remote location is also one of the reasons for the loss of interest. Price competition came up as big negative reason. Some says that in public procurement, prices fall unrealistically low sometimes and are no longer profitable for companies. Another says that public inquiries are not attractiveness because mostly the lowest price wins even if all kind of quality reports must be given. On the other hand, one respondent argue that it is not that difficult to participate in public procurement and a company must put in a little bit effort to gain big volumes that public procurement offers. The illustrative figure of this question you can see in the figure thirteen below.

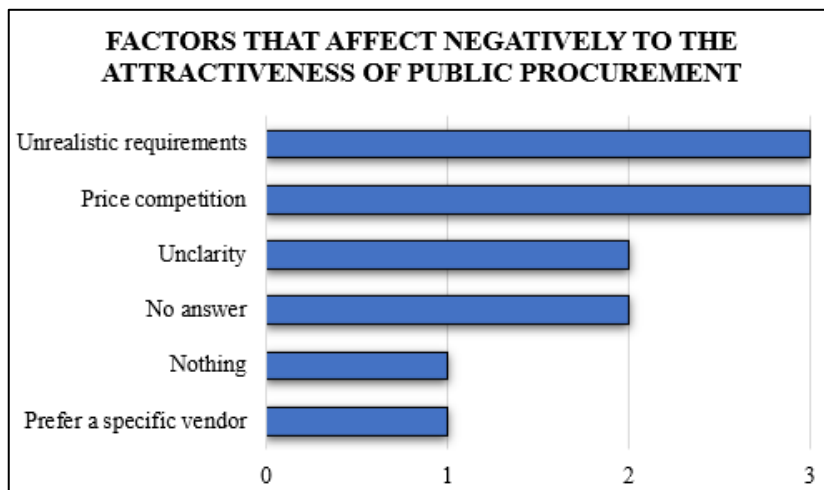


Figure 13. Factors that affect negatively to the attractiveness of public procurement

Survey question number six asked companies about the reasons behind the decision of not submitting a tender. The most usual reasons are too high references requirements, employee designations and lack of resources. Other reasons are too harsh price competition, situations where one vendor is being the favourite and unreasonable risks for a tenderer. Lack of resources are meant lack of time to prepare offer or to be a partner, sanctions, designations of employees, reference requirements and preferring one vendor have been the reasons behind decision to not participate. Annoyance at too high reference requirements is seen as the heaviest reason behind the decisions. Client's difficult contact persons have also been

the reason for the absence so past contract seasons affect also. The distribution between reasons for not submitting a tender can be seen from figure fourteen below.



Figure 14. Reasons for not submitting a tender

The question about emphasis on ecological choices in quality comparison distribute opinions. Thirty-three percent says that it has no impact on attractiveness because for example some fields are already sufficiently regulated, and quality comparisons are questionable. Indeed, twenty-five percent says that that kind of emphasis is not suitable for their business field at all. Social responsibility would be more suitable in that kind of business fields than ecological responsibility. Seventeen percent thinks that it increases the attractiveness and would be a good decision to emphasis ecological choices. The problem is that, in practice, there are not very many clearly measurable criteria, and the quality comparison should be equal to all. Figure fifteen below illustrates the answers for these ecological choices question.

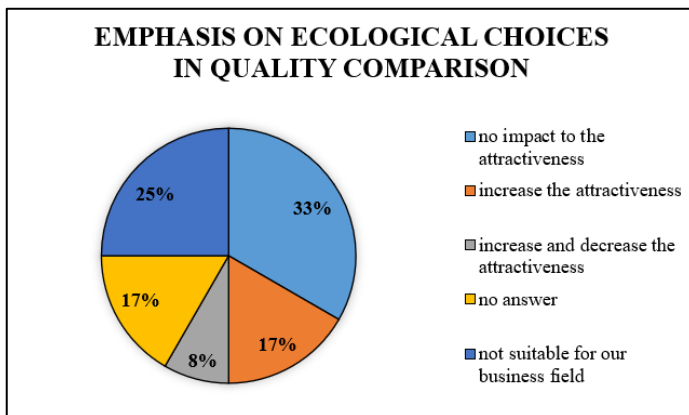


Figure 15. Emphasis on ecological choices in quality comparison

Emphasis on quality more than price in quality comparison was favourably experienced and almost sixty percent of respondents thinks that it is a good thing and only one respondent thinks that price should be the only thing that matters in tender comparison phase. Many respondents would like to have more emphasis on quality because then it allows companies to offer higher quality products or services and, in that way, better solutions for needs. Three out of twelve respondents think that it has both sides of the coin. One of them thinks that the requirements of the inquiry often do not correspond to reality in terms of implementation when other worries about that criteria would prefer one specific vendor.

One argument is that it does not matter how many points comes from quality and how many from price, but it matters that how much dispersion there is in the quality score. It means that if seventy percent of points comes from quality, but all the vendors get full quality points then it is only price competition. It is important to have a dispersion in the quality scores and meanwhile quality criteria should be fair to all and easy to measure. Figure sixteen below illustrates the answers.

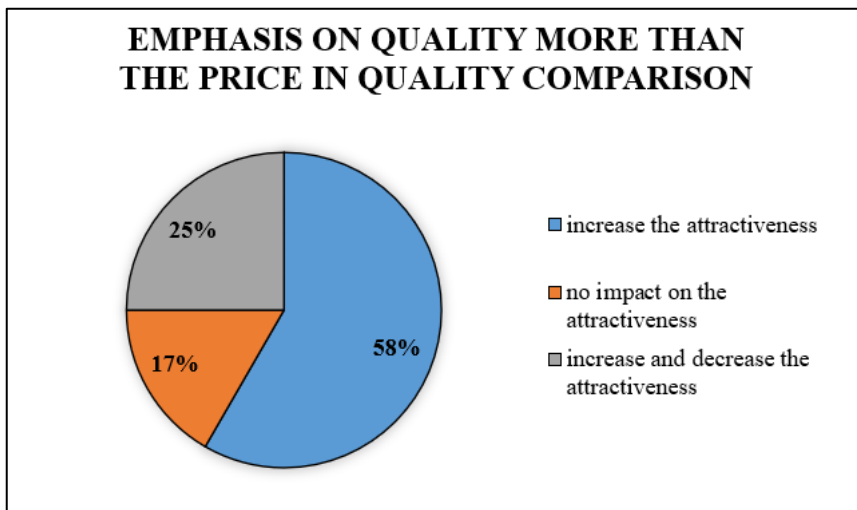


Figure 16. Emphasis on quality more than the price in quality comparison

Investigating companies' willingness to innovate is one of the research themes in this thesis. Survey's question eleven and twelve mapped companies' willingness to innovate. Below are two figures, figures seventeen and eighteen, which illustrates the distribution amongst answers. Willingness to implement into green innovations in general are much more wanted than the willingness to implement into a new technology. Eighty-three percent are willingness to innovate into green innovations in general when only forty-two percent are ready to implement into a new technology. Many respondents would be interested to create some sort of collaboration relationship with the procurement unit and implement innovations if it is economically secured.

Negotiated procedure would be perhaps the best solution to improve the potential for innovation by allowing participants to discuss conditions more than in other public procurement procedures. In addition, bonuses for more ecological products would improve the willingness to innovate. One respondent also suggested that procurement units inform, for example, one year before their upcoming races to give bidders time to prepare, generate alliances and invest. The procurement units are also encouraged to adopt common principles so if one unit is requiring something, then every big public procurement unit such like cities would demand it. Becoming a contract supplier for an individual city may not be enough to compensate for the entire money spent on the investment if it is a large investment.

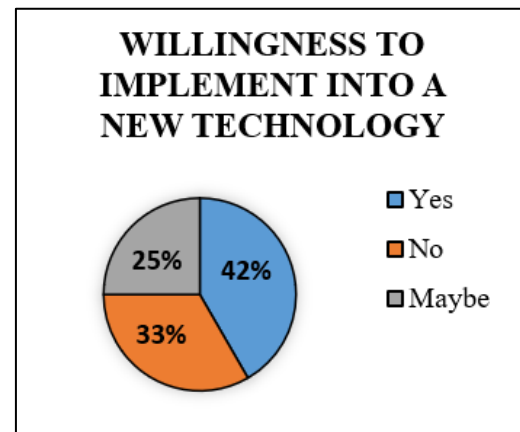
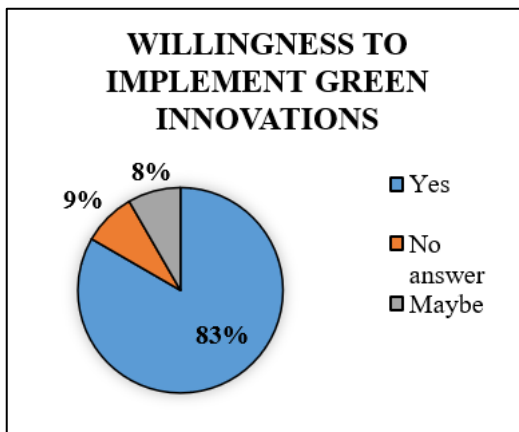


Figure 17. Willingness to implement green innovations      Figure 18. Willingness to implement into a new technology

Thirty-four percent of respondents agrees that selecting multiple vendors and making preference ranking of them is the best option in public tender competitions. Twenty-five percent support generating dynamic supplier register and twenty-five percent prefer that procurement unit is choosing a single supplier. Dynamic supplier register is perceived as flexible and fair system and the customer always gets a supplier that suits their needs. Eight percent thinks that it the number of contract supplier does not have impact on the attractiveness of public procurement. Respondents' courage procurement unit to discuss about the number of contract suppliers in market dialogue with the potential companies because eight percent agrees that the most suitable number of contract suppliers depends on the service and its nature. Answers can be seen in the figure nineteen below.

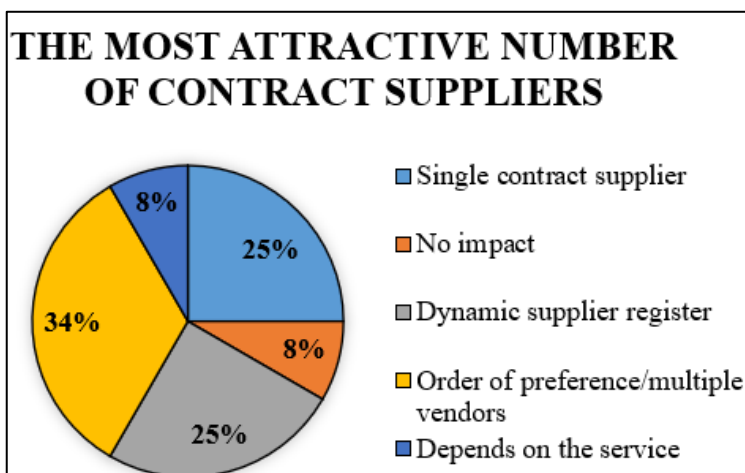


Figure 19. The most attractive number of contract suppliers

The question thirteen was a multiple selection question that aims to map the general opinions of the impact of the number of orderers. The question was settled as “Does it makes an inquiry more attractiveness if you can get several than just one orderer from one inquiry competition?”. As it can be seen in the figure twenty, several orderer increase the attractiveness a little or a lot in the opinion of fifty-nine percent of answers. The result is expected because it saves tender companies resources if they get more than one orderer via one inquiry than if they must make a lot of offers to lot of inquiries to get the clients. Forty-one percent thinks that it does not matter how many clients they get from one inquiry. The results can be seen in the figure twenty below.

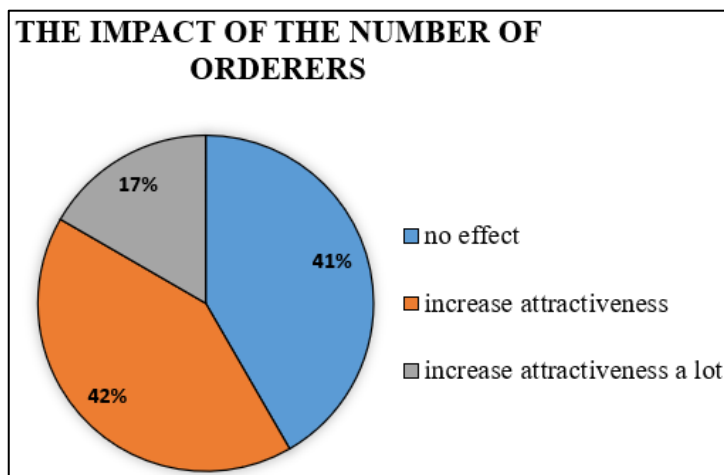


Figure 20. The impact of the number of orderers

The question fourteen was multiple selection question that aimed to map the general opinions of the impact of option periods to the attractiveness of public procurement. Possible option periods mentioned in the contract increase the attractiveness by sixty-seven percent. This can be explained with same justifications as the number of orderers because option year in the contract decrease the company’s work to obtain a contract and saves their resources. Twenty-five percent of answers are with the result that option periods have no impact on the attractiveness and one respondent says that option periods decrease the attractiveness of an inquiry. The results can be seen in the figure twenty-one below.

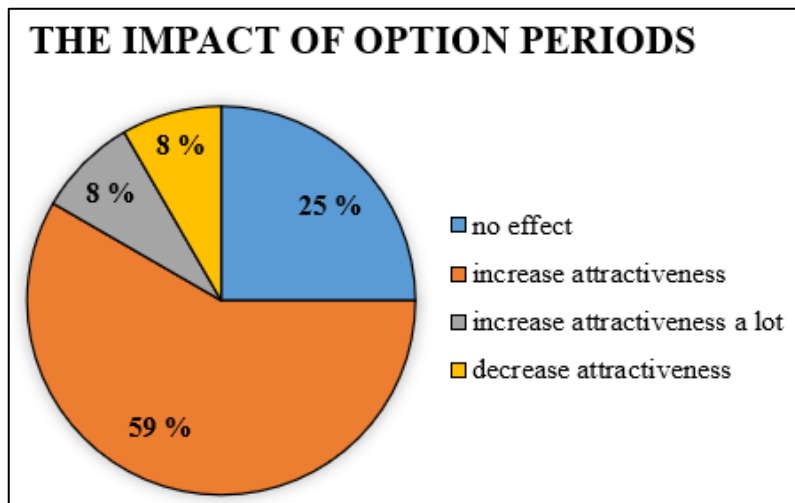


Figure 21. The impact of option periods

Due the prolonged unstable situation in the Ukraine, prices have risen, and security of supply has deteriorated. This has for example seen in the business markets in Finland as price increases. (Lainà 2022.) Only thirty-three percent of this research's respondents answered that the situation in Ukraine has been a negative impact on public procurement attractiveness. The biggest negative factor has been pre-pegged prices used in public procurement. In public procurement, prices can be for example one-year fixed from the beginning of the contract period before a company can propose price increases. This increases the risks of the vendor company a lot and perhaps brings more expensive prices to the procurement unit, because companies must put puffers on the prices precaution. Answers can be seen in the figure twenty-two below.

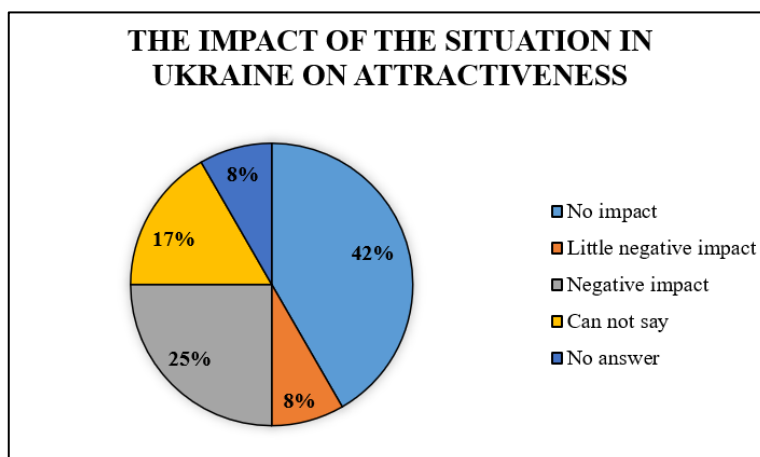


Figure 22. The impact of the situation in Ukraine on attractiveness

The final topic question of the survey was a question of respondents' development ideas for public procurement units. Clear majority agrees that clarity is essential. Respondent's wants clear and simple inquiry documents. The creation of clear inquiries is easier with an active market dialogue and clear answers to the questions submitted at the question stage. Market dialogues are essentials to get companies opinions for example of the emphasis distribution of price and quality. Two respondents' want to encourage procurement units to produce more competitions that generated dynamic supplier registers. In addition, longer deadlines, lower sanctions, and later employee designations were desired. Fair requirements were also raised as a development idea. In terms of references, some wanted more references especially to personal references, and some wished to reduce the reference requirements. Development ideas by theme are illustrated in the figure twenty-three below.

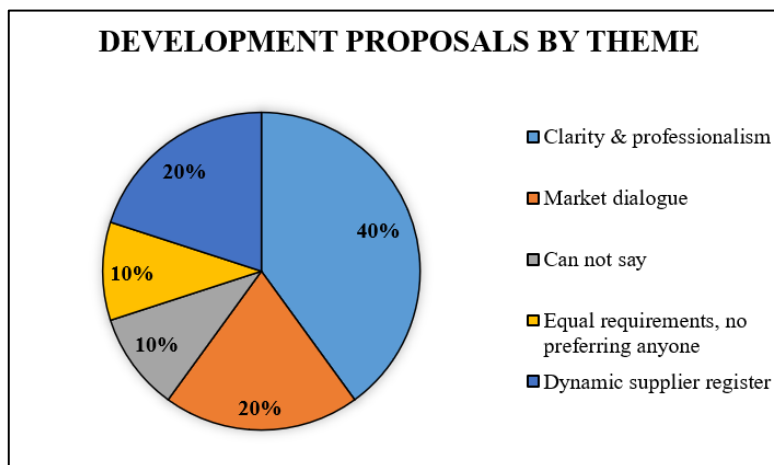


Figure 23. Development proposals by theme

#### 4.1 Recommendations for procurement units

In the light of these results, companies should be aware of these factors and things that has raised from the survey's answers. First, it is recommended for procurement units to take a little time to make sure that all the tender documents are clear and there are no mistakes or preferring requirements. Second, the requirements should be reasonable regarding the nature of the procurement and procurement unit should invest in market dialogue to get professional opinions of the companies before publishing the inquiry documents. It is good to know that option periods and the number of orderers affect positively to the attractiveness of public



procurement and thus for procurement unit might be good to give tenderers many orderers and leave an option for the option period to the contract so that it can be used if necessary.

The option periods are good to be as an option if for example the next procurement is late, and the old contract must be extended. In addition, the reference requirements should be considered carefully, and vendors prefer that the quality is weighted more than price. The public procurement unit should also carefully consider to be more flexible with price increase demands from suppliers now due to the situation in Ukraine. To ensure that tenders are received, it is important for the procurement unit to ask in the market dialogue companies' opinion on how long prices should be tied from the beginning of the contract season and how prices are revised during the contract season. Open communication and flexibility can bring cost-effective benefits to the procurement unit if they can that way get more tenders and with flexible price increase system get perhaps more offers without large puffers in prices.

## 5 Conclusions

Public procurement refers to a process where public organizations like cities and government departments purchase goods and services from companies (European Commission 2017). Public procurement differs from private sector procurement in volumes which means that a purchase needs to exceed the national threshold to be classified as a public procurement. National threshold is 60 000 euros in goods and services, 150 000 euros in construction contracts and 400 000 euros in healthcare. (Pekkala, Pohjonen, Huikko & Ukkola 2022,18.) Volumes are high in public procurement and thus public organisations can have potential to influence on society and markets (European Commission 2022).

The principle of transparency, the principle of relativity, the principle of equality and the principle of non-discrimination are the four main common features of public procurement. In words, public procurement inquiries should be equal to all, should not prefer or discriminate anyone, should be openly informed and transparent and the requirements should be relative in the perspective of the service or good that is being purchased. (Julkisten hankintojen neuvontayksikkö 2016a.) Procurements can be divided into three different categories by their value which are small scale procurement, national procurement, and EU level procurement. Small scale procurement is procurement that's value is under the national threshold. National threshold procurement's value is over national threshold but beyond EU threshold and EU level procurement exceed the EU level threshold. EU level threshold is for example 215 000 euros for four years in goods and most of the services when the procurement unit is a city. The higher the value of the procurement, the more bureaucracy. (Pekkala et al. 2022, 32-33.)

There are eleven different EU procurement procedures and perhaps the most used procedure is open procedure (Pekkala et al. 2022, 21-27). In the open procedure there is published notification of the procurement with all the tender materials available on the internet. Tenderers made a bid in within the permitted time limit and procurement unit compare the

tenders and chose the best one according to pre-announced selection criteria. (Pekkala et al. 2022 & Heijboer & Telgen 2002.) Procurement unit then check that winning company or companies fill the suitability criteria and then they publish the procurement decision. Usually after procurement decision there is fourteen day complaining time and after that, if there are not any complains, the contracts can be written with the winner companies and the contract season can be begin. Other procedures are for example limited procedure, dynamic purchasing system and electric auction.

The public procurement process is a quite long process that can lead from one month to two years but mostly it is lasted around four to eight months. Public procurement process can be classified as five phases process where the steps are planning, preparation, competitive tendering, finalisation of the contract and contract management. The phase one is called planning phase where public procurement unit create procurement blank, go through the work order, investigate the value for the purchase and select the procedure to be used (Patras & Banacu 2016; Pekkala et al. 2022, 20-21). The phase two consist of the preparation of the tender materials and market dialogue with the potential companies (Patras & Banacu 2016, Pekkala et al.2022, 22). The phase three is called competitive tendering that starts when the invitation to the tender is published. Phase three consists of questions and answers phase, opening tenders, comparing tenders, checking suitability criteria, publication of the procurement decisions and signing the contracts. (Pekkala et al.2022, 25.) Phases two and three are most time-consuming phases. The phase four includes drawing the ordering instructions, updating information into systems, and publishing the contract award notice (Pekkala et al. 2022, 579). Lastly, the phase five is the contract season that last four years in framework agreement procedure and seven years if the procurement unit makes an open-ended contract with one supplier.

This research focuses on investigate what companies' thinks about public procurement and how public organisation could improve the attractiveness of public procurement. This research also focuses on to investigate how the emphasis on quality and environmental criteria affect companies' willingness to innovate. This study is conducted as a qualitative study and the research data is gathered by survey. The survey consisted of multiple selection

questions and open questions. The survey was sent to seventy companies that have participated in the public procurement tender competitions in previous years. Twelve answers were gathered. This makes more limitations to the generalization of the results.

### 5.1 Answers to the research questions

In this section the research questions are answered. This study consists of one main research question and two sub-research questions. First, the main research question is being answered and then the sub-research questions. Last chapter sums up the whole findings. These findings are conducted from twelve different companies from different kinds of fields. Respondent companies' sizes are mostly 10-250 persons and over two million euros turnover.

*What factors have a positive and negative impact on the attractiveness of public procurement?*

Clarity, contract value, location of the contract, good reputation and solvent payer are factors that affect positively to the attractiveness of public procurement. The tenders that include product or services in a good location are more attractive to the companies than location that does not offer that many possibilities for companies. Contract value is important and usually the higher the value is, the more attractive the tender is from the big company's perspective. Clear documents affect positively and allow companies to offer their products and services amongst open and fair rules and without misunderstanding situations. Information about the reliable payer affects positively to the attractiveness and reputation if the procurement unit has good reputation. All these above-mentioned factors are positive factors that predict positive future for the relationship with public organization and thus create better attractiveness in light of the social exchange theory and Calvi & Gibberts (2012) scientific article. The results of this thesis' research are in line with the social exchange theory.

Unrealistic requirements, too harsh price competition, bad reputation, unclarity and preferring a specific vendor are factors that affect negatively to the attractiveness of public procurement. Especially the price competition came up several times in the answers. Some said that in public procurement, prices fall unrealistically low sometimes and are no longer profitable for companies. Another said that public inquiries are not attractiveness because mostly the lowest price wins even if all kind of quality reports must be given.

Too many reference requirements or too broad reference requirement are a reason for not submitting a tender and thus a negative factor to the attractiveness. Respondents wants that procurement units would consider more carefully the requirements and their relativity. The impact of the number of orderers affect the attractiveness and fifty-nine percent likes the idea that they can get more than just one orderer from one tender competition. Option periods affect mostly positively to the attractiveness of public procurement. Option periods gives companies extra years of safety income and extra years without big extra work so the resources are saved if the option periods are used. The situation in the Ukraine has negative impact of twenty-five percent of the respondents. Forty-two percent says that the situation in the Ukraine has not affect significantly to the attractiveness of the public procurement. Respondents says that the situation in the Ukraine has had an impact to their business and prices, but it has not had that much impact on the attractiveness of public procurement.

There are many things that affect to the attractiveness of public procurement. To aim better attractiveness amongst companies is important for public procurement because with better attractiveness there could be more bidders in a single tender competition. The more bidders, the more competition and better price-quality ratio.

***Does the emphasis on environmental criteria and other quality criteria increase the attractiveness of public procurement?***

Thirty-three percent of the respondents says that the emphasis on environmental criteria in tender comparing phase does not have any impact to the attractiveness of public

procurement. According to the respondent, the company's own business field is already sufficiently regulated and no additional emphasis on ecological choices is needed. Twenty-five percent says that it is not suitable in their business field. Other respondent thinks that quality comparisons are questionable because sometimes the procurement unit does not have enough knowledge to produce and give points of companies' environmental choices. Only seventeen percent says that it increases the attractiveness. One of those says that they already have an environmental certificate and thus they are glad if they can get points of that in comparison phase. Eight percent of respondents thinks that it both increase and decrease the attractiveness. The reason behind this answer is that it would be great but comparable criteria are sometimes difficult to find. As a conclusion of these answers, it is more important to have clear tender documents with big contract value than the emphasis on ecological choices in comparing phase.

When asking about the emphasis on quality in general more than the price in quality comparison the results are clearer. Fifty-eight percent thinks that the emphasis on quality more than price increase the attractiveness and only seventeen percent thinks that it has no impact. Those companies of the fifty-eight percent share would like to have more emphasis on quality because then it allows companies to offer higher quality products or services and, in that way, better solutions for needs. Twenty-five percent thinks that emphasis on quality more than price increase and decrease the attractiveness of public procurement. One argument is that it does not matter how many points comes from quality and how many from price, but it matters that how much dispersion there is in the quality score. As a conclusion, procurement unit should emphasis quality in general rather than the ecological aspect of quality and emphasis quality more than price. Quality criteria should be easy to measure and be able to have dispersion between companies.

***How the emphasis on innovative solutions in scoring affects companies' willingness to innovate?***

Eighty-three percent of the respondents are willingness to implement green innovations and only seventeen percent did not answer or were not sure about their opinion. The other

question was about the willingness to implement into a new technology and that distributed opinions more. Forty-two percent of respondents are more willingness to innovate into new technology if they could get points and contract with that. The willingness to implement to perhaps easier and cheaper innovations in general is at higher level than implementing into a new technology. In general, companies would be ready to innovate if it would be economically profitable for them and if they would have enough time to prepare the innovation. One respondent suggest that procurement units would give pre-notification for example one year before the tender competition so that companies would have time to prepare innovations. Couple of respondents would like to have more open market dialogues between companies and procurement units so that they could tell procurement units about their new solutions and innovative products.

As final sum up it is more important to have clear tender documents with big contract value than the emphasis on ecological choices in comparing phase. Procurement unit should emphasis quality in general rather than the ecological aspect of quality and emphasis quality more than price according to the respondents. Quality criteria should be easy to measure and be able to have dispersion between companies. Cheaper and smaller innovations are more likely to be implemented amongst companies than expensive innovations like innovations to the new technology. Clarity, contract value, location of the contract and solvent payer are factors that affect positively to the attractiveness of public procurement. Unrealistic requirements, too harsh price competition, unclarity and preferring a specific vendor are factors that affect negatively to the attractiveness of public procurement. Reputation affects both ways.

## 5.2 Suggestions for further research

Further research is always necessary. The more we have research of public procurement, the more we have knowledge and tools for developing public procurement into better way in the future. New research will complement this research and previous studies, thus forming a more comprehensive understanding of public procurement in general and its attractiveness.

This thesis included the survey that was send for companies that works in all kinds of fields. The further research could focus only into one specific field, for example health services or construction. With the specification into one specific field, the thesis could go deeper into that fields and its own special characteristics and the research findings would be very useful for that specific field because then the research questions and survey questions could be formulated specifically for the needs of its industry.



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## Appendices

### Appendix 1: The questionnaire for companies

## Julkisten hankintojen houkuttelevuus

Tämä kysely on pohjana Pro gradu -tutkielmani empiiriselle osiolla, jossa tutkin julkisten hankintojen houkuttelevuutta ja julkisten hankintojen vaikutusta yritysten halukkuuteen toteuttaa vihreitä innovaatioita. Tässä kyselylomakkeessa on 18 kysymystä, joista neljä on monivalintakysymyksiä ja 14 kysymyksiä, joihin voi vastata avoimen tekstikentän avulla. Kysely on täysin anonyymi.

Toivottavasti pystyt antamaan ajastasi 5-15 minuuttia täyttämällä lomakkeen. Vastausaikaa on tiistaihin 27.12.2022 klo 23:00 asti.

Arvostan jokaista vastausta ja niistä on minulle suuri apu Pro gradu -tutkielmassani.

...

1. Yrityksen koko

- 0-9 henkilöä
- 10-49 henkilöä
- 50-250 henkilöä
- yli 250 henkilöä
- en halua vastata

## 2. Yrityksen liikevaihto

- 0 € - 199 999 €
- 199 999 € - 299 999 €
- 300 000 € - 999 999 €
- 1 milj.€ - 2 milj. €
- yli 2 milj. €
- en halua vastata

## 3. Onko tarjouspyyntöihin tarjoaminen helppoa vai vaikeaa? Jos koet vaikeaksi, miksi?

Enter your answer

## 4. Onko tarjouspyynnöissä asetetut vaatimukset tarjoajille olleet yleisesti ottaen kohtuullisia? Jos ei, niin miten vaatimukset eivät ole olleet kohtuullisia?

Enter your answer

## 5. Koetko tarjoajien olevan eriarvoisessa asemassa tarjouspyyntökilpailuihin osallistumisen suhteen? Jos kyllä, miksi?

Enter your answer

## 6. Mitä syitä on ollut taustalla jos olet jättänyt tarjoamatta johonkin oman alasi tarjouspyyntöön?

Enter your answer

## 7. Mitkä tekijät vaikuttavat mielestäsi julkisten hankintojen houkuttelevuuteen? Millä on suurin vaikutus?

Enter your answer

8. Mikä on suurin tekijä, joka vie kiinnostuksen julkisen hankinnan tarjouspyyntöön?

Enter your answer

9. Oletteko kiinnostuneempia tarjoamaan jos hankintayksikkö antaa lisäpisteitä yrityksenne ekologisista valinnoista laatuvertailussa, miksi?

Enter your answer

10. Oletteko kiinnostuneempia jättämään tarjouksen jos vertailussa laatukriteerit saavat suuremman painoarvon kuin hinta, miksi?

Enter your answer

11. Olisitteko valmiita innovoimaan jotain täysin uutta jos pääsisitte sen avulla julkisen hankintayksikön sopimuskumppaniksi?

Enter your answer

12. Olisitteko valmiita investoimaan esimerkiksi johonkin uuteen teknologiaan jos sen avulla saisitte tuotettua ekologisempia tuotteita/palveluita ja tämän myötä tulisitte valituksi jossain tarjouspyyntökilpailussa?

Enter your answer

13. Onko tilaajien määrällä vaikutusta tarjouspyynnön houkuttelevuuteen? Tekeekö tarjouspyynnöstä houkuttelevamman tilanne, jossa yhden tarjouspyynnön kautta toimittaja saa useamman kuin yhden tilaajan palveluilleen/tuotteilleen?

- lisäävät houkuttelevuutta runsaasti
- lisäävät houkuttelevuutta
- ei vaikutusta
- vähentävät houkuttelevuutta
- vähentävät houkuttelevuutta runsaasti

14. Miten mahdolliset optiokaudet sopimuksessa vaikuttavat julkisen tarjouspyynnön houkuttelevuuteen?

- lisäävät houkuttelevuutta runsaasti
- lisäävät houkuttelevuutta
- ei vaikutusta
- vähentävät houkuttelevuutta
- vähentävät houkuttelevuutta runsaasti

15. Miten valittavien sopimustoimittajien määrä vaikuttaa julkisten hankintojen kiinnostavuuteen? Oletteko esimerkiksi kiinnostuneempia tarjoamaan jos sopimuskaudelle valitaan vain yksi toimittaja sen sijaan, että muodostettaisiin dynaaminen toimittajarekisteri tai tehtäisiin etusijajärjestys neljän toimittajan kesken?

Enter your answer

16. Miten muokkaisitte julkisten hankintojen tarjouspyyntöjä, jotta niistä tulisi yrityksellenne houkuttelevampia?

Enter your answer

17. Miten Ukrainan tilanne on vaikuttanut julkisten hankintojen houkuttelevuuteen?

Enter your answer

18. Vapaa sana aiheesta & kiitos vielä kerran vastauksistanne!

Enter your answer

Submit