

Finnish industrial relations interest group policy positions between 2003 and 2015

Computer assisted text analysis for comparative politics in Finnish language

Juha Koljonen
University of Helsinki
Faculty of Social Sciences
Political Science / European
Studies
Master's thesis
30.4.2016

Tiedekunta Fakultet Faculty Faculty of Social Sciences		Laitos Institution Department Political Science	
Tekijä Författare Author Juha Koljonen			
Työn nimi Arbetets titel Title Finnish industrial relations interest group policy positions between 2003 and 2015 - Computer assisted text analysis for comparative politics in Finnish language			
Oppiaine Läroämne Subject Political Science / European Studies			
Työn laji Arbetets art Level e i v l i m		Aika Datum Month and year 30.4.2016	Sivumäärä Sidoantal Number of pages 64.
Tiivistelmä Referat Abstract <p>The economy of Finland has encountered a drastic transformation in past 15 years. There has been a shift from industrial economy towards service economy, which had a major effect on the traditional industries. Furthermore, the external shock like the European finance crisis had a great impact on Finnish economy. In this thesis I will examine the implications of these changes for the policy positions of Finnish neo-corporate actors. These actors have traditionally had a major influence on the Finnish economic and social policies. I will use the theory of Competition State by Cerny as a midrange theory in this study. According to this theory, state actors are threatened by globalization and market pressures. They respond to these threats by promoting competitiveness.</p> <p>I will examine the changes using Wordfish, a computer assisted text analysis method, which can be utilized to analyse policy positions. This method has not been applied on texts written in Finnish before. I will test the validity of this method using Finnish party manifestos from elections of the year 2007. I will then use this method to examine the policy positions of Finnish industrial relations industry groups during the time period from 2003 to 2015. The results are then analysed using the theory of competition state theory.</p> <p>The thesis is structured in following way. I will first present the outlines of Finnish industrial relations and collective bargaining. Then I will shortly discuss the economic changes in Finland. After that I will examine institutionalism and the theory of the competition state. After this I will present my methodological approach. I will also present the results of the Wordfish validation using texts in Finnish. After that I will present the results of industrial relations interest group policy analysis. Finally I will discuss the results using the theory of the competition state.</p> <p>There are three main findings in this thesis. First of all, Wordfish as method can be used to analyze also texts which are written in Finnish. The results of the Wordfish analysis are similar to expert policy analysis results from same manifestos. The second main finding is that there has been a shift in language, where certain concepts became used more frequently. These concepts can be partly explained by the competition state theory. The third main result is that the Finnish trade union confederations can be divided into two groups in adaptation of these concepts.</p>			
Avainsanat Nyckelord Keywords Computer assisted text analysis, Wordfish, Finnish industrial relations, the competition state theory			
Ohjaaja tai ohjaajat Handledare Supervisor or supervisors Mikko Mattila			
Säilytyspaikka Förvaringställe Where deposited			
Muita tietoja Övriga uppgifter Additional information			

Table of contents

1	Introduction.....	4
2	Background of the research	8
2.1	Interest politics in Finland	8
2.2	Economic transformation of 2000s	10
3	Theoretical points of departure	14
3.1	Institutionalism.....	14
3.2	The Theory of the Competition State	15
3.3	The competition state and its concepts in Finland.....	18
4	Methodological approach	22
4.1	Current method for Estimating Party Positions	22
4.2	A Scaling Approach to Party positions.....	24
4.3	Multi-language view to text processing and Finnish language	27
4.4	Validation of the Wordfish results.....	30
5	Policy position analysis	35
5.1	Manifesto selection and preparation.....	35
5.2	Results of analysis.....	37
5.2.1	Dimension.....	40
5.2.2	Time series.....	44
5.2.3	Focus points.....	47
5.3	Discussion of the results.....	51
5.3.1	People focus	51
5.3.2	References to technology.....	52
5.3.3	Comparison of results to competition state vocabulary.....	53
6	Conclusions.....	60
7	References	65
8	Appendixes	70
8.1	Appendix 1. Word weightings	70
8.1.1	Positive weightings	70
8.1.2	Negative weightings	71
8.2	Appendix 2. Stop words.....	72
8.3	Appendix 3. R language program for automatic pre-preparation of texts	72
8.4	Appendix 4. Concepts and categories with high, medium and low weightings.....	73
8.4.1	Concepts with high weightings.....	74
8.4.2	Concepts with medium weightings	75
8.4.3	Concepts with low weightings.....	76

1 Introduction

The economic structure of Finland has gone through a drastic transformation in past 15 years. Many authors have noted how industrial sector shrunk. Honkatukia, Tamminen & Ahokas (2014) described those changes in their report 2014. They write that the electronics industry cut down their employees, the phone business of Nokia was sold, naval industries, shipyards and the metal industry lost orders, and paper mills have been closed. 1,3 million Finns live in areas which thereby have experienced a fast change in their economy. Meanwhile, the size of the service sector has grown in Finland. Honkatukia, Tamminen & Ahokas (2014) write that the economic restructuring can be understood as a process. In this process the services gain larger role in the national production and demand structure. Hence the employment in service industries has increased, and this is especially pronounced in industries which require high levels of knowledge and skills.

Both the financial crisis and euro crisis were also important events during past 15 years. Kuismanen and Spolander (2012) write that between 2000 and 2007, Finnish economy grew on average about 3,5 % per year. There were more exports than imports, the government reduced the national debt to 34% of GDP and the unemployment was decreased to 6%. However, the Finnish economy was severely shaken by the finance crisis. In year 2008 the GDP fell by 8,2%, and the GDP level has not recovered since. Fiscal stability of the government was shattered and unemployment increased.

Between the years 2000 – 2015, there was also a rise in technology utilization. The usage of Internet and broadband increased dramatically between 2000 and 2015. Google and social media use has expanded and video game profits surpassed the movie industry profits in 2009 (The Guardian, 2009). Dobbs, Manyika and Woetzel (2015) estimate that the technological change is accelerating. Processing power/capacity and connectivity are increasing and the data revolution multiplies their effect. This releases unprecedented amounts of information to consumers and businesses.

In my thesis I will explore the ramifications of these changes to the Finnish economic interest groups. My focus is especially on the employer and employee organizations. The Finnish system of labour interest can be described as neo-corporatism. In this system the employers and employees negotiate the labour and other policy changes with the government. These policies include labour policy, employment policy and some social policies. These organizations can influence and in some cases even decide these policies. For this reason, knowledge about the policy positions of these organizations is needed. These policy positions can give a lot of information about the Finnish labour and employment policies and how they have formed. In this thesis I will examine these interest group policy positions. It is also interesting that the perception of

these organizations has changed. Soininvaara (2015) writes that these organizations were engines of progress when the welfare system was being built and expanded in Finland. However, Finland has moved to post-industrial phase of economy, and now these organizations are seen to hinder the development.

In my thesis I will conduct an empirical study of the policy positions. The subjects of this analysis are three employee organizations and one employer organization. These organizations from the employee side are the Central Organisation of Finnish Trade Unions (SAK), the Finnish Confederation of Salaried Employees (STTK) and the Confederations of Unions for Academic Professionals in Finland (AKAVA). The main employers' organization is The Confederation of Finnish Industries (EK). It is the leading business organisation in the private sector, representing both industry and services. In this thesis will refer to these organizations by their abbreviations SAK, STTK, AKAVA and EK. There are also other employer organizations, which represent governmental, municipal and church employers, but I decided not to include them. . That is, in this thesis I will examine the interest organizations of employees and private businesses.

I intend to uncover the changes which happened in the policy positions of these organizations between early 2000 and 2015. There have been four parliamentary elections in Finland during that period, in the years 2003, 2007, 2011 and 2015. Each of these organizations has prepared a manifesto for these elections, outlining their goals for the new government. I assume that these manifestos represent the collective will of each of these organizations and their members. I will study the changes in their policy positions by examining the language in these manifestos. For this, I will use computerized text analysis as a method.

The theoretical approach in my study is institutionalism. I will use the theory of Competition State by Cerny (1990) as a midrange theory in this study. According to this theory, state actors are threatened by globalization and market pressures. They respond to these threats by promoting competitiveness. At the same time the state loses some of its functions and becomes "hollowed-out", when it focuses on promoting the enterprises. As Cerny & Evans (1999) wrote, state actors will try to align state functions to international economy. Kantola (2006) has studied the Competition state in Finnish context. She has created a vocabulary of competition state, which has been used in Finland. I will use this vocabulary to examine the results of my analysis, and see how these interest groups relate to the competition state process. After 2015 parliamentary elections, the new Finnish government announced that their aim is to adapt new policies. The target of these policies is improving the competitiveness of the Finnish companies in global economy. Kantola claims in her study, that the policies of the competition state have drifted from businesses to the governmental programs. As this study intends identify the policy positions of EK, the result can also shed some light to these new governmental targets.

Lucas et al. (2015) write in their paper that automated content analysis and comparative politics are well suited for each other. This is because countries around the world are producing textual data at unprecedented rates. According to them the traditional statistics are often faulty, but these large amounts of text data can be used for descriptive and causal inference. Especially the scholars in comparative politics have been using text as data for years. They have drawn information from archives and interviews. Thus they know how to ask political questions with this data. I intend to demonstrate that many analyses can be done from material which is freely available in internet. This is why I will mainly use data, which is available online.

I will use a method by Slapin & Proksch (2008) to analyse policy positions in political manifestos. I have selected this method because it has been successfully used before to analyse changes in policy positions of political actors. The method analyses the changes in the language used by these actors. Kantolas (2006) Finnish vocabulary of the competition state allows me to interpret these changes in the light of the competition state theory. Cerny (1990) and Kantola write that the competition state is an ongoing process. This analysis allows me to shed light on the changes in policy positions. This change reveals the relation of these actors towards the competition state process.

Slapin & Proksch's method gives weightings in one dimension to the words according to their usage in different manifestos. This one dimension means that the manifestos are given only one value. This dimension represents the most salient dimension in these texts. The manifestos are given weightings of their own, based on these word weightings. This is then the policy position of that manifesto when comparing it to other analysed manifestos. This way each of the manifestos can be placed to a time series and thus the policy changes can be analysed. Slapin and Proksch claim that this method has high correlation with other ways of analysing policy positions. The authors have created a software in the programming language R, which implements this method. This software is called "Wordfish", and I will utilize it in my analysis. These computerized methods of political science have not been used so much in Finland. There is for example no study, which use the "Wordfish" software to analyse texts written in Finnish. The Finnish language has its own peculiarities when compared to for example Indo-European languages. Therefore, one of my aims in this thesis is to also examine how well this software manages with texts in Finnish.

The research questions of my thesis can be formulated in the following way:

- x How has the policy position of these four neo-corporatist actors changed between 2003 and 2015, based on their manifestos? Sub-questions of this point are:
 - o Which words and concepts define the different extremes in policy area where these actors positioned themselves?

- o What is the position of each actor and how has it changed between 2003 and 2015? Which words and concepts have increased in frequency and which have decreased?
- o What is the focus area of each actor, based on the language of their manifestos?
- o Is the competition state vocabulary by Kantola (2006) adapted by these actors, and to what extent?

2 Background of the research

Before we can examine the policy position changes, we need to introduce the actors and the neo-corporatist system in Finland. In this chapter I will first present the institutional arrangements in Finland. I will also present the actors whose policy positions I am analysing in this thesis. After that I will shortly discuss the economic changes in Finland during 2000s, as these changes might have influenced the policy position shifts during this period.

2.1 Interest politics in Finland

My research interest is related to policy positions of interest groups in Finnish politics. I am focusing on Finnish labour unions and employer organizations as political actors. This is because of the Finnish corporative system in interest politics. Cooperation between the government and labour market organizations is an important characteristic of Finnish labour market relations. Drafting of almost all labour and social policy legislation, which is related to working life, is prepared in a tripartite process. The policies are drafted in collaboration between government and labour market organizations. These organizations represent both employers and employees. (Työ- ja Elinkeinministeriö, 2012)

Magone (2011) refers to Finnish system as “neo-corporatism”. In a neo-corporatist or tripartite system the businesses and trade union organizations have strong involvement in economic and labour market policy. These social partners negotiate compromises to combine competitiveness and social cohesion. Magone continues that a Neo-corporatist or tripartite approach has been important in countries with strong unified trade union confederations and business organizations. These countries are such as Sweden, Denmark, Netherlands, Austria and Finland. Neo-corporatist systems of intermediation experienced their peak between 1945 and the mid-1970s. This was also the culmination of industrial society, where manufacturing dominated gross domestic products. Yet since 1970s the generous welfare systems and working conditions in neo-corporatist states began to lose competitiveness. In Finland the neo-corporatism has been dominated by trade union confederations. These organizations attempted to preserve some kind of centralized wage bargaining. When the collapse of Soviet Union led to a large increase in unemployment in 1990s, it led to a stronger bargaining position for the employers’ organizations. Magone concludes that the neo-corporatist system of Finland is slowly giving way to more flexible forms of system intermediation.

The main actors of Finnish industrial relations are the government, trade unions and employers’ organizations. The government has a key role in mediation between employers and unions in these negotiations. The trade unions are represented by three main union confederations: the Central Organisation of Finnish Trade Unions (SAK); the Finnish Confederation of Salaried Employees (STTK) and the

Confederations of Unions for Academic Professionals in Finland (AKAVA). Main employers' organization is The Confederation of Finnish Industries (EK). It is the leading business organisation in the private sector, representing both industry and services. Other employer's organizations are the Local government employers (KT) for local government employers representing all Finnish local and joint authorities, The State Employer's Office (VTML) for state employees, and The Church Employers (KiT) which represents the Lutheran Church of Finland as an employer. (Jokivuori, 2014). In this thesis, I do not intend to examine KT, VTML or KiT, because EK is the major employer's organizations.

According to Ministry of Employment and Economy (2015), there is total of 2 157 000 members in Finnish trade unions, of which 1 514 000 are employees. The total degree of labour organization (*järjestymisaste*), defined as the proportion of employees which are also union members, is 64.5 percent in Finland. The degree of organization is highest in the manufacturing industries, with around 80 percent. In the public service sector the degree of organization is with 76 percent slightly lower. In the private service sector it is lowest, with only around 51 percent. Most of the employees who are union member are part of SAK, which was founded in 1907. Twenty different trade unions are members of SAK. Those unions can be divided into five groups: Industrial unions, transportation unions, public employees unions, private service sector unions and journalist unions. Altogether, these unions have are around 990 000 members (SAK, 2016). About half of these members belong to the manufacturing industries, while the rest is employed in either the private service sector or the public sector (ILO).

STTK consists of 17 trade unions. These unions represent office workers, public officials and other mid-level employees. STTK was established in 1946, and it has a total of 540 000 members (STTK, 2016). These members are employed in wide range of economic sectors. The biggest member groups include nurses, technical engineers, police officers, secretaries, institute officers and sales persons (ILO). Akava is the confederation of professional level trade unions. Akava was established in 1950 and consists of 36 unions, which represent highly educated people and professionals. Taken together, Akava has 600 000 members. Over 80 percent of these members have a bachelor degree or higher education (Akava, 2016). The Confederation of Finnish Industries (EK) consists of 27 employer unions, which have 16 000 members. Of these members, 96% belong to small or medium sized enterprises. There are around 980 000 employees on the staff of the companies represented by EK (*Elinkeinoelämän keskusliitto*, 2016). The members of this confederacy represent more than 70% of Finland's GDP and provide over 95% of Finland's exports (ILO).

Since the 1960s, the collective bargaining has been done by tripartite negotiations. The actors in tripartite negotiations were the government, employers and trade union confederations. The result of this negotiation was the national income policy agreement. The national income policy agreement includes a

wide array of economic and social issues, such as pay increases, taxation, pension, unemployment benefits and housing costs. It also includes a range of qualitative working life measures, and it covers virtually all wage earners. However the collective bargaining negotiations of 2007-2008 were concluded at sectoral level. After that, EK has announced that sectoral, company and even individual-level bargaining will be the negotiation model of the future (ILO). In Finland the collective agreements have a generally binding nature. This means that also unorganized employers have to follow those national agreements, which are relevant to their line of business. The coverage rate of collective agreements is between 95% and 100%, and they are legally binding. (Jokivuori, 2014).

Trade unions and employers' organizations are also connected to the political parties in Finland. Sundberg (2008) writes that the SAK is linked to both the Social Democratic party and the Left Alliance, both being parties which represent the working class. The National Coalition party is linked to Finnish industry employers' organization. Meanwhile, the Centre party is linked to the MTK, which represents the interests of the agrarian population in Finland. Other political parties in Finland do not have so close ties to the actors in Finnish industrial relations.

In summary, the trade unions and employer confederations are important actors in the process of deciding on labour, employment and some social policies. These organizations are also important for many people. A great number of employees are organized in those unions and are working in workplaces which are under these employer confederations.

2.2 Economic transformation of 2000s

Rikama and Salmi (2010) write in their article that during 2000s the economy of EU countries has developed less than its competitor countries. Finland used to be among the top countries in the competitiveness indicators. Unfortunately, the competitiveness of Finland decreased even more than that of other EU countries. During the years 2000 and 2008 Finnish economic growth was above EU average, and between 2004 and 2007, Finnish growth surpassed EU average by at least one percent. However, after this high proliferation, the downfall in 2009 was even worse, as the Finnish economy decreased by 8 percent. This was worse than the EU average in that year. Moreover, when compared to the other Nordic countries, the Finnish economy grew faster before 2009, and the following collapse was more pronounced.

When compared to Sweden, Finnish economy suffered a much sharper recession. Moreover, the recovery has been much slower. Sweden continues to run with surplus, while Finland has been in deficit since 2011. The peak of unemployment was 8.7% in early 2010. Some of this reflects the setbacks of Nokia, but there

are also other mainstay industries which are doing badly. This has been blamed on the loss of competitiveness. The coalition government, which was formed in mid-2011 and led by conservative prime minister, adopted measures to improve the structural budget balance. Some say that along with further austerity, painful reforms are required with retirement age and public service productivity. (Economist, 2012).

Rikama and Salmi (2010) state that, according to the WTO, the trade of goods increased by an average of five percent between 2000 and 2008. Due to the finance and economic crisis of 2008, the trade decreased significantly. Especially countries which were dependent on exports, like for example Finland, were affected. The Finnish exports increased until 2009, but then they collapsed by 30 percent. This was an exceptionally pronounced decrease, as Finnish exports fell even under the level of the year 2000. The exports of Denmark also decreased, but they stayed above the level of the year 2000 exports. In Sweden the exports also decreased, but a bit less dramatically than in Finland. Rikama and Salmi explain this big decrease with the Finnish exports being mainly capital assets, and these assets would be traded less during economic depressions.

Rikama and Salmi (2010) continue that the economic structure of Finland has undergone a radical change. In the year 1975 the primary production of forestry and agriculture was as big as public sector. Both employed roughly 15 percent of all Finnish employees. In 2008 the size of primary production was roughly 4 percent of employment, but the size of public sector was roughly 25 percent. A similar division has also happened between industrial manufacturing and private services. In year 1975 both sectors employed roughly 35 percent of all employees. By 2008 the share of manufacturing had decreased to 25 percent, while the share of private services had increased to 45 percent.

Kajanoja (2012) describes that the Finnish economy faced several hardships during the 2000s. The exchange ratio between exports and imports has been decreasing since end of 1990s. This is due to rising import prices, while export prices have stayed on the same level. One of the main reasons for the decreased export/import ratio was the significant reduction in exports from electronics and electric industries. At start of the 2000s they were the most important export sector in Finland, with 12 percent of the GDP, but in 2011 they contributed to only 2 percent of the GDP. Moreover, the forestry industries contributions to the reduction of exports during the same time period. The global economy has changed during the 2000s, which had a significant impact on the Finnish foreign trade. The role of emerging markets has risen and the supply chains of products have become more multinational. (Kajanoja, 2012)

The change in Finnish economy can be also seen from the industry share of total export in Figure 1.

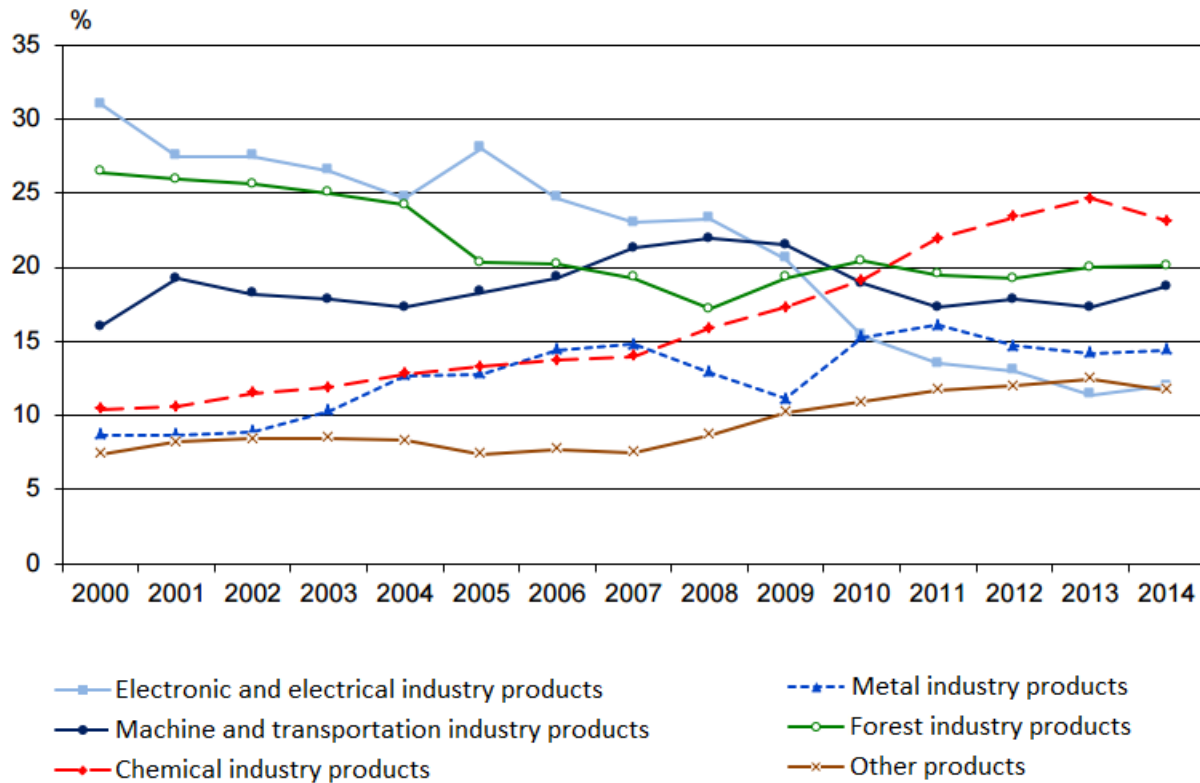


Figure 1. Finnish exports by industry share of total exports (Tulli, 2015).

From Figure 1 we can see that the share of electronics and electrical industry products has decreased from over 30 percent in 2000 to slightly more than 10 percent in 2014. Also the forest industry exports have fallen from a bit more than 25 percent, to around 20 percent in that same period. Below in Figure 2 are the statistics of people employed by the industry sector between 2005 and 2015.

070. Employed persons and employees aged 15-74 by employer sector and industry (TOL 2008)

	Employed, 1000 persons										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Employer sector total											
Industries, total (00-99)	2,401	2,443	2,492	2,531	2,457	2,447	2,474	2,483	2,457	2,447	2,437
A, B Agriculture, forestry and fishing; mining and quarrying (01-09)	121	118	118	119	119	115	110	109	107	109	109
C-E Manufacturing; electricity, gas, steam and air conditioning and water supply; construction (10-33)	1,441	1,443	1,446	1,443	1,406	1,389	1,384	1,382	1,377	1,359	1,352
F Construction (41-43)	159	164	174	186	175	172	176	175	176	169	168
G Wholesale and retail trade; repair of motor vehicles and motorcycles (45-47)	295	298	305	311	296	298	303	300	296	290	284
H Transportation and storage (49-53)	144	154	151	153	153	156	147	144	142	140	137
I Accommodation and food services activities (55-56)	78	78	84	88	85	83	83	86	86	86	87
J Information and communication (58-63)	92	98	95	95	94	95	99	101	100	100	106
K, L Financial, insurance and real estate activities (64-68)	68	67	70	71	70	71	75	74	71	74	73
M, N Professional, scientific and technical activities; administrative and support service activities (69-82)	224	235	250	253	244	250	253	262	260	269	277
O Public administration and defence; compulsory social security (84)	126	123	119	117	116	117	116	113	111	106	106
P Education (85)	166	171	168	165	164	174	179	175	175	180	179
Q Human health and social work activities (86-88)	355	364	370	382	388	379	396	409	399	402	404
R-U Arts, entertainment and recreation; other service activities (90-99)	127	127	135	136	138	139	141	142	144	151	145

Figure 2. Employed persons and employees aged 15-74 by employer sector and industry (SVT, 2016).

From Figure 2 we can see that in category C-E (which includes industrial manufacturing) the number of employed persons has decreased by 89 000 between 2005 and 2015. In categories M, N (professional, scientific and technical activities, administrative activities and support activities) the number of employed has increased by 53 000 persons. There has also been an increase of employment in category Q (human health and social work activities) of 49 000 persons. These clearly show that there has been a drastic shift. The employment in industrial sector decreased, while the employment in service and professional sectors increased.

These changes had an impact on all actors in Finnish neo-corporative system. Especially the members of SAK unions have been affected, as they are mainly employed in manufacturing industries. On the other hand, the number of employees in service and professional profession has increased. On the employer side the companies have suffered from the decreased international demand for their exports after year 2008. In this thesis I will examine how these changes have affected the policy positions and language of the actors. Next we will take a step back and examine the theoretical background of this thesis. Institutionalism and the theory of competition state have guided the method of examining these changes. It will also help us to analyse the results.

3 Theoretical points of departure

In this chapter I will present the theoretical background of this thesis. This study is located under the broad umbrella of institutionalism. I will first briefly present the institutionalism as general approach. Then I will examine the competition state theory, which will both guide the selection of method and helps to analyse the results. I will also present an overview of competition state vocabulary for Finland. This vocabulary is important for my thesis, as it will function as a framework which I will use to analyse the results.

3.1 Institutionalism

The theoretical approach of my thesis is institutionalism. According to Hague & Harrop (2010), the study of institutions is a central purpose of political science in general. According to them, institutions can be understood in three different ways. The most limited interpretation of institutions is the formal governmental organization which have more or less secure constitutional basis. A bit broader understanding of institutions also sees political parties and other linked organizations as institutions. The most extensive way of understanding the institutions is according to Hague & Harrop to understand institutions as established and well recognized political practices. Hague & Harrop continue that institutions are particularly important in liberal democracies. This is because a decisive step towards democracy is the devolution of power from a group of people to a set of rules. Their importance notwithstanding, there is no single theory of institutions. The institutional approach points to an area of study rather than set of methods. Institutional analysis can be static, based on examining institutions at given moment. But many writers in this approach are interested in institutional evolution and its effects. Hague and Harrop continue that the institutions operate with two different logics, which are the logic of appropriateness and the logic of consequences. The logic of appropriateness refers to actions which members of an institution conform to its own norms. The logic of consequences are actions which are directed at achieving an individual goal. Institutions provide the rules of the game within which individuals pursue their objects.

Lowndes and Roberts (2013) have a broader interpretation of institutions. They write that institution also refers to forms of social organization in a multi-faceted way. It refers to social phenomena at many different levels, which include informal codes of conduct, written contracts and complex organizations. Institutions are special procedures and practices, which show resilience over time. Institutions are also producing stable, valued and recurring patterns of behaviour. Lowndes and Roberts distinguish between political institutions and other institutions. They define political institutions as institutions which shape the opportunities that citizens have to make their voices heard, and which participate in decision making and access to public services. Institutions like electoral systems, political parties, social movements and human rights legislation all affect what people can and cannot do politically. Lowndes and Roberts continue that

while a bottom-up perspective is important, the formal institutional architecture of the state sets parameters for politicians and the civil servants about what is possible and what not.

Lowndes and Roberts (2013) also discuss the institutional change in their book. They conclude that institutional change can be stimulated by endogenous as well as exogenous forces. Gradual change can have transformative effects. Both institutional stability and institutional change are products of human agency, and both change and stability should be understood simultaneously. They are actively constructed out of the ongoing interactions of actors, existential institutional constraints and contextual challenges. Lowndes and Roberts conclude that any credible analysis of institutional change must examine three factors: institutions, actors, and environment, as well as their interaction.

In my thesis, the neo-corporate system in Finland is understood as an institution. The actors which are examined are the three trade union confederations and one industry employer's confederation. Environment is the economic change in Finland during 2000s. The changes in the actors' political positions are understood as reactions to the economic changes. The neo-corporatist negotiation system of Finland provides the confines or limits to these changes. I will focus my study on the changes of the political positions of these actors. I will not discuss the future of the neo-corporatist system in this thesis. I have selected the competition state theory as a framework. This framework will be used for understanding the change in political positions and how environment affected it. This is because the competition state theory has been used to explain the transformation of countries from industrial welfare states to post-industrial competition states. In the next chapter I will present the theory of the competition state. I will also briefly discuss some of its critique and what kind of language is being used by the competition state in Finland.

3.2 The Theory of the Competition State

As a midrange theory I will use the theory of the competition state. Cerny and Evans (1999) describe the competition state as an analytical framework in their article. According to them, the competition state is a way of responding to the challenges of globalization, while maintaining a relatively effective domestic policy programme. The theory refers to a development where state actors in states seek to embrace openness and marketization. This development differs from the ones seen in industrial/welfare states, where in industrial/welfare states state actors attempt to insulate their states from market pressures. Competition states seek to make the domestic economy more prosperous and competitive in international terms, while accepting the loss of key social and economic state functions. (Cerny & Evans, 1999).

According to Cerny and Evans, some authors have suggested that all states are losing power and coherence owing to globalization. Other authors maintain that governments are able to adapt to the globalization. A state's structures can be transformed in ways which alter, but do not fundamentally reduce or undermine state capacity. The theory of the Competition State stands in contrast to the "Post-Fordist State" of Regulation theory. Regulation Theory asserts that the restructuring of the state as consequence of globalization takes the form of a flexibilization of the state apparatus and "hollowing-out" of its policy repertoire. This restructuring still effectively permits the state to maintain its generic function of stabilizing the national polity and promoting the domestic economy in the public interest. In other words, the Regulatory Theory claims that by restructuring, the state is able to maintain the core of its competence and authority.

Cerny and Evans write that in contrast to the Regulatory Theory, the Competition State involves both a restructuring and further qualitative disempowering of the state in the face of globalization. By prioritizing the promotion of international competitiveness, the state loses its capacity to act over time. The competition state turns into a promoter of various enterprise associations. This "hollowing-out of the state" leads to both loss of state's interventionist role and much of its reason to exist. The policy focus of the state shifts from the macro-level to micro-level. This area is traditionally occupied by local, provincial or regional governments. Cerny and Evans continue that these changes lead to three apparent paradoxes for the political scientist. First, this process does not bring about a simple decline of the state, but it may cause an actual expansion of state intervention and regulation. Second, the state's actors and institutions are themselves promoting new forms of complex globalization. This is an attempt to adapt the state's action to cope more effectively with what they see as global "realities". The state's intervention and different state/society arrangements are feasible in the longer term only when they are seen as economically efficient ways of adaptation to globalizing pressures. Lastly, these developments challenge the capacity of state institutions to embody the kind of communal solidarity. This solidarity gives deeper legitimacy to the modern nation state. It also creates institutional power and social embeddedness. This subsequently further undermines the social and political capacity of the state to resist globalization. (Cerny & Evans, 1999).

In his book, Cerny (1990) gives a more detailed description of the differences between the competition state and the welfare state. The welfare state is an authoritative actor (or set of actors). Its main effect of intervention is to take certain activities out of the marketplace, in order to prevent market failures and counteract them. In the welfare state the state is a decommodifying agent in economy. Cerny continues that state has turned into a competition state mainly due to openness. The state's role is now reverse as commodifying agent. The state has to act more and more like a market player. This means promoting,

controlling and maximizing returns from market forces in an international setting. Cerny claims that this function is similar to the state's role in the post-feudal period and the years of mercantilism.

Cerny (1990) writes that the rise of international structures of production, finance, trade, information and communications have led to a greater structural interpenetration of national economies by worldwide market forces. This means that it is increasingly impossible to isolate/separate them from national political processes. In economic policy, this has led to the change away from macroeconomic demand management. The new focus lies in mesoeconomic and microeconomic policies. These targeted industrial policies encourage merges and restructuring, promote research and development and stimulate credit based investment. In public industries this implies drastic rationalizations and reductions of size through management changes, labour-shedding and expenditure ceilings. Beyond restructuring of industries, this change means a deregulation of financial markets and combatting unemployment by promoting labour market industry adaptation. It also involves direct support for research and development in the high technology sector. Cerny concludes that the state does not lose its role but instead will remain a primary actor. The state's intervention will paradoxically even increase. The state's role will be in promotion, support and maintenance of different social and economic activities, and it will use economic interventions to marketize itself. Interventions are also used to promote the competitive advantage of national industrial and financial activities within the world economy.

In his later book, Cerny (2010) writes that the competition state depicts the most recent reflection of Foucault's "art of governmentality" in more open world. The competition state promotes procompetitive and pro market regulation. It also extrapolates the competitive imperative to transnational and global levels. The underlying aim of the state's intervention is not to replace the market, but to enhance its efficiency. The government's promotion of competition by internalizing "enlightened self-interest" in everyday behaviour is the most fundamental and indispensable means to this goal. According to Cerny, the key to understanding the politics of the Competition state is to perceive it as an ongoing struggle between two types of groups. First are the groups that are able to capture the benefits of globalization. This is done by transnationalizing their activities, networks, strategies and tactics. Second are the groups who bear the brunt of the downside of globalization. These downsides are unemployment, reduced incomes, limited opportunities, political repression and civil strife. In other words, the competition state is a terrain of conflict between these groups.

Cerny & Evans write in their article (1999) that these various pressures and processes result in redefining the boundaries of political. This restructuring of the political arena then forces parties and governments of the left to redefine their conception of "social" or "public" away from their traditional confines. The division

between left and right will lose many of its traditional landmarks. Social democratic and other left parties start to search for policies which adopt the new constraints. These policies intend to promote a kind of “globalization with a human face”.

The theory of the competition state has also been used by other authors. Horsfall (2011) reviews some of their studies. For some authors the competition state theory is just an extension of neoliberal policies. Horsfall claims that for some it is a right wing bluff which is meant to justify ideological decisions taken in the early 1980s. Still, Horsfall concludes that many other authors advance the same arguments as Cerny and Evans. The competition state theory has captured the attention of many in the social policy and political science world. However, Horsfall also criticizes the competition state theory. He agrees that it is a powerful theory which sits easily with the changes of last twenty to thirty years. It also offers explanations for these changes. Nonetheless, Horsfall comments that it is also a summary of how the authors believe the world would be. He continues that the theory takes much for granted. It seeks to explain how the world is and how almost all contemporary phenomena can be incorporated to the competition state theory. Horsfall writes that besides the persuasive arguments, there is little empirical evidence which supports the theory of the competition state. In his dissertation Horsfall examines the competition state through an empirical approach. According to his analysis, there is one pure form and three impure blends of behaviour. The pure form of the competition state model adheres to the expectations of the competition state in all respects. The first impure competition state is the pro-business policy group. It is a model in which the government's spending levels do not correspond to the competition state theory. Furthermore, the state rejects activation of its citizens. This approach focused less on the existing operations of the established welfare instruments of the state and more on harnessing the potential of the global economy. The second impure approach is the activity group. In this group the existing approach of the state is restructured towards the competition state using activation as tool, rather than simply reducing the spending. The last group was the neoliberal group. This group conformed to low spending ideals of the competition state theory. This would require the rolling back of expenditure where high levels were the historical norm. Horsfall also presents other interesting findings in his dissertation. According to him, nearly all countries show competition state behaviours over time. Nonetheless, the rise of the competition state has not been homogenous. According to Horsfall, the most important finding is that the adoption of competition state practices does not necessitate the stripping back of social expenditure.

3.3 The competition state and its concepts in Finland

From the Finnish perspective, Anu Kantola has studied the Competition state in Finland. She described how new concepts of the competition state emerged in the language of Finnish companies. Kantola writes in her

article that the competition state formed during 1980s and 1990s, when government released capital movements and deregulated business. She claims that the time from 1980 to 2004 was a period of globalization and economic liberation, in which the Finnish competition state was created. According to Kantola this change in businesses and in business environment is also reflected in the political language. She claims that this change in language formed a new vocabulary for this new regime or a way of governance. She writes that, after coming to existence, novel concepts in language migrate to a new environment. Here they evolve before they subsequently emerge in a new and acceptable form. Finally, the concepts thrive and are ready to move again. Kantola writes that in 1980s and 1990s the concepts which emerged in the business world migrated to governmental programmes. Next, I will shortly present these concepts.

Kantola first presents the concept of change. Change is something that happens and which requires adjustments of businesses and people. Changes in business environment meant that a reorientation was necessary. Also restructuring (*rakennemuutos*) is linked to the concept of change. Kantola describes how change was something that individuals, society and industry had to respond to. In the 1980s the talk about change was concrete, but in the 1990s the concept of change rose to an abstract level. In the 1980s the change was, according to Kantola, mainly used only to limited company restructuring. In the 1990s the concept changed in a way that the change did not have clear starting or ending point anymore. Changes also covered every aspect of life which then justified an extensive request. (Kantola, 2006).

The next concept in Kantola's article is flexibility, which as a concept is close to change. They both refer to a movement as opposite to stiffness and stagnation. Flexibility could mean flexibility of occupation, working hours, work place, salary etc. In politics flexibility usually meant dismantling bureaucracy and collective bargaining. Kantola writes that the concept of flexibility within the context of the competition state recognizes the constraint of "reality" and adapts accordingly.

The next competition state concept is national competitiveness. Kantola writes that this concept has been in government programmes for a long time. Previously, it used to mean competitiveness of export sale prices. The concept was used to describe a company's position in market. In the 1990s the use of competitiveness expanded. It changed to a concept which describes national industries in global markets. Competitiveness began to be a political concept, which was used to influence national politics. Competitiveness was the product of research and education policies, and it was the main target of economic policies. Competitiveness was the goal for policies which then justified and obliged certain actions. Competitiveness became a central word to define society. The value of different actors and actions were valued on based on their competitiveness.

Knowledge and innovations are the next concept of the competition state. Kantola claims that knowledge, skills (osaaminen), innovations and technology were linked to the competitiveness. Before the 1990s they used to be components of competitiveness, and when the concept of competitiveness migrated to the political language, so did these concepts. Governments started to promote knowledge based competitiveness, boosted knowledge-intensive sectors and encouraged knowledge-based economy. Innovations also migrated to political speech in the 1990s. Governments promoted innovation capabilities of businesses and developed innovation programmes. Kantola writes that promoting innovations was seen as particularly national or an almost patriotic thing. Knowledge and innovations become ways to pursue competitiveness. Kantola claims that when this kind of language is brought to politics, it can be assumed that the whole society has similar interests. Political society is equated to a company.

The next important concept of the competition state was stimulation, which was used to describe the state's relation to individuals. The state was not anymore a community of political citizens, but a coach or overseer, which stimulated and encouraged individuals to a better performance. The essential difference was that the target of politics was not anymore to discuss issues and problems, but to build incentive systems to guide and control. Kantola writes that this shifted the political focus from changing structures to changing people. Problems and solutions were linked to individual skills and abilities, not to society's structures.

The last concept of the competition state is the welfare state as an opposite concept of the competition state. The welfare state is a project which has become too rigid due to lack of competition. Market speech positions itself against this rigid welfare state. Kantola writes that in the 2000s the concepts of welfare and wellbeing started to emerge in similar contexts as competitiveness. Also the concept of welfare society emerged. For example the technology was seen as a way to strengthen the structures of welfare society. Welfare and wellbeing were used to describe services, structures and working life. Many governments referred to the welfare state reform, which might also mean dismantling old structures.

Kantola concludes that guaranteeing the economic growth became the most important goal and content of politics. The central aim of the competition state is to harness different sectors of society to support the businesses so they can prosper. The national aspect of the competition state is not disappearing. Kantola claims that the competition state is a national techno-economic project. In this project politics have been replaced by the coaching state, which encourages individuals to work for the common good. Kantola concludes that the competition state is not a monolith, even though its language might seem so. The

language of the competition state is in constant change and it is both arena and target of continuous struggles.

In this chapter I have presented the theoretical background of my thesis. The broad approach in my thesis is institutionalism. The neo-corporate system in Finland is understood as an institution. The actors which are examined here are the three trade union confederations and one/the main industry employer's confederation. The environment is the economic change in Finland during the 2000s. The changes in actors' political positions are understood as reaction to the economic changes in the confine of the institution of the neo-corporatist negotiation system of Finland. I presented Cerny's and Evans' (1990) theory of the competition state as a framework to understand the results of this study. According to this theory, state actors respond to globalization and market pressures by promoting competitiveness. At the same time as a state loses some of its functions and becomes "hollowed-out", it simultaneously focuses on promoting the enterprises. As Cerny & Evans (1999) wrote, state actors will try to align state functions to international economy. Horsfall (2011) developed the theory of the competition state by dividing it to four variants according to his empirical study. These variants are the pure competition state, a pro-business variant, an activation variant and a neoliberal variant. His main contribution to the competition state theory was that the competition state process does not necessarily mean that government needs to cut down social spending. There are different ways of how to adopt and align national businesses towards global economy. Finally, I presented Kantola's (2006) study about the competition state and its vocabulary in the Finnish context. She has described how new concepts of the competition state emerged in the language of Finnish companies. These concepts were restructuring / change, flexibility, national competitiveness, innovations and knowledge, stimulation and the welfare state as opposite of the competition state. Kantola discussed how these concepts have gained a dominant position in the transformation of the welfare state. In this thesis I intend to use Kantola's concepts of the competition state as a framework, in which the results are then compared. I will also use the competition state theory to discuss the results of this analysis.

In the following chapter, I will present the methodological approach of this thesis. Before that, I will describe in a few words why this approach fits well with the theory of the competition state. Cerny and Evans (1999) write that in the competition state process, the state disempowers itself within when it tries to maintain and increase its competitiveness in global markets. The domestic political actors take a proactive and pre-emptive lead in this process through both policy entrepreneurship and the rearticulation of political and social coalitions. In other words, important state actors align themselves and the state to the competition in global economy. Kantola (2006) has defined the vocabulary of the Finnish competition state process in her article. This vocabulary shows how Finnish actors attempted to restructure themselves

and the state towards global economy. I have selected Slapin's & Proksch's (2008) approach as a method. They claim that their method is an easy-to-implement method that provides a valid time-series position analysis. In this thesis I assume that each of these neo-corporate actors is one of these domestic political actors. Slapin's & Proksch's method allows me to create a time series of their positions in relation to the competition state vocabulary presented by Kantola. This way I can analyse how these actors relate to the process of the competition state transformation. In other words, which of these actors benefit from this process and which of them suffer from it?

4 Methodological approach

In this chapter I will present the method of my thesis. I will first discuss the current methods for estimating party positions. Then I will present the quantitative textual analysis model by Slapin & Proksch (2008). As the Finnish language has its own peculiarities, it is important to examine if this approach can be applied to texts written in the Finnish language. In this chapter I will also argue pre-processing of the data and features of Finnish language, which will have an effect on the analysis. Finally I will do a brief validation of the approach by using data from the elections in 2007. I will compare the results of the Wordfish analysis to expert surveys. The aim of this validation is to give a reasonable argument that this approach can indeed produce valid results when being used on texts in the Finnish language.

4.1 Current method for Estimating Party Positions

Slapin & Proksch (2008) write in their paper that the party positions cannot be directly observed, but instead pose a challenge to scholars. Parties reveal their positions indirectly through a variety of activities. They publish manifestos and they make political statements and speeches. According to Slapin & Proksch, there are currently three primary methods for estimating latent party positions. These methods are hand coding manifestos, computer-based analysis and expert surveys. In the following part I will present these three methods.

Expert surveys are based on the judgement of a country's particular specialists. These specialists rely on a variety of sources to form an opinion. Experts are able to synthesize large quantities of information from various sources. These include manifestos, speeches, voting patterns and media reports. The advantage of expert surveys is that the specialists are able to tell to researchers what the salient dimensions and political positions are in their opinion. A disadvantage of expert surveys is that they are difficult and expensive to repeat over time and across countries. Moreover, because the surveys are one-time events, it is hard for the researcher to go back to and ask questions which were missing from the survey.

The next method is, according to Slapin & Proksch, the most well-known and widely used method for the generation of party positions. This method is The Comparative Manifestos Project, CMP. The CMP group has created 56 issues, which fall into seven major categories. The CMP group codes the quasi-sentences to these issues and then calculates the position of each manifesto to each of the issues. One of the problems of this method is that the issues might be understood differently in different countries. For example decentralization would be a right-wing issue in the United States, but a neutral or left-wing issue in others. Also the weighting of issues changes over time and between countries. The fixed coding scheme of CMP also means that new issues must be placed into existing categories.

The most recent method according to Slapin & Proksch is a computer-based content analysis of party manifestos. This method attempts to reduce both the costs and likelihood of human error associated with hand coding texts. An example of this approach is a method by Laver, Benoit & Garry (2003) which uses reference texts. These reference texts are usually expert surveys, which then are used as anchors in a one dimensional space. Using this as an anchor, their program "Wordscores" counts the number of times each word occurs in reference texts. The software then compares these counts to the word counts from texts being analysed.

According to Slapin & Proksch, this method is easy to implement when compared to expert surveys and CMP. Unfortunately, there are also issues with this method. First, the usefulness of the Wordscores approach relies on finding appropriate reference texts. Second, this approach gives the same weight to all words. Hence, words which occur frequently in all texts and provide little political information (such as conjunctions and articles) will distort the results. These words will pull document scores toward the centre of space and make them incomparable with the original reference values. Finally, the authors of Wordscores state that their technique should not be used for time-series analysis, because the political lexicon is constantly in flux. The reference texts are anchored to a certain point of time, and Wordscores then compares texts to this point in time. Wordscores can therefore only be used to analyse time-series party positions if three assumptions are made. First, the political lexicon remains sufficiently stable over time. Second, chosen reference texts include all relevant words over time. Third, the reference texts represent the most extreme positions during a chosen time period. In the following part I will present Slapin's & Proksch's approach. The authors argue that their method does not rely on reference texts and therefore does not require the two latter assumptions.

4.2 A Scaling Approach to Party positions

According to Slapin & Proksch (2008) their method is an easy-to-implement statistical scaling model. The method can be used to estimate time-series party positions from political texts. Their approach assumes that the relative word usage of parties provides information about their placement in the political space. The advantage of this approach is, according to Slapin & Proksch, that it doesn't require reference texts. It instead assumes an underlying statistical distribution of word counts. It can produce time-series estimates and it has the ability to use all words in every document and estimate the importance of each word.

According to the authors, the process by which words are generated in a text is highly complex. To facilitate analysis, linguists commonly use a naïve Bayes assumption. The text is represented as a vector of words or occurrences, and individual words are assumed to be distributed randomly. That is, the analysis assumes that each word is independent from the position of other words in the text. This approach, which is aptly named a "bag-of-words" (Lucas et al, 2015) assumption, underlies many statistical models in computer assisted text analysis for comparative politics because of its relative simplicity. Slapin & Proksch claim that while this assumption is clearly false in real-life tasks, it performs well in classification. This approach can uncover valuable categories or, as in this case, political positions.

Slapin and Proksch analysed word frequencies of party manifestos. They assume that the frequencies are generated by a Poisson process. They write:

This particular distribution is chosen because of its estimation simplicity: it only has one parameter, λ , which is both the mean and the variance. This assumption means that the number of times party i mentions word j in election year t is drawn from a Poisson distribution. This model specification is essentially a Poisson *naïve Bayes* model and has also been used by Monroe and Maeda (2004). We later apply other distributions to test the robustness of our findings to the distributional assumption. The functional form of the model is as follows:

$$y_{ijt} \sim \text{Poisson}(\lambda_{ijt})$$

$$\lambda_{ijt} = \exp(\alpha_{it} + \psi_j + \beta_j * \omega_{it})$$

where y_{ijt} is the count of word j in party i 's manifesto at time t , α is a set of party-election year fixed effects, ψ is a set of word fixed effects, β is an estimate of a word specific weight capturing the importance of word j in discriminating between party positions, and ω is the estimate of party i 's position in election year t (therefore it is indexing one specific manifesto). We include word fixed effects to capture the fact that some words are used much more often than other words by all parties. The party-election year effects control for the possibility that some parties in some years may have written a much longer manifesto. The parameters of interest are the ω 's, the position of the parties in each election year, and the β 's because they allow us to analyze which words differentiate between party positions.

(Slapin & Proksch, 2008)

In other words, this model uses word frequency counts from party manifestos. Each word is given a value, which is based on the frequency of how many times that word has occurred in the manifestos. If a word has occurred in certain manifestos with a higher frequency than in others, then this word gets a higher or lower value. High and low values denote different ends of the dimension. Using these word values, the model assigns values to each manifesto. Slapin & Proksch claim that if a party maintains a similar position from one election to the next, it means that the party has used words in similar relative frequencies over time. If a party moves away from its former position and closer to the position of a rival, it implies that party's new word choice resembles more of its rival than of its former self. The model estimates positions on a single dimension. This is the most salient dimension in the texts. The authors expect that when using the entire manifesto text as data, this dimension corresponds to a left-right political dimension. The authors claim

that this left-right position is something that can be then confirmed by comparing the results to other estimates of left-right positions.

It is of course a relevant question if single words can actually discriminate between parties. Slapin & Proksch have an example for this in the Wordfish manual (2009a). If party A writes in their manifesto that “we want lower taxes” and party B writes “we want higher taxes”, then the word taxes has exact same frequency in both documents. Slapin & Proksch write that in this case, the word “taxes” is not the word which discriminates between these parties, but words “lower” and “higher”. Therefore, it is also possible to use word pairs, such as “higher taxes” and “lower taxes”. In this case, the word pairs are counted instead of single words.

Slapin & Proksch have implemented the model by writing a computer program “Wordfish” in the statistical language R. The code uses word frequencies as dataset and outputs party positions. The code also calculates the word weights and party and word fixed-effects. Slapin & Proksch write that like all statistical models, Wordfish makes several assumptions which researchers should keep in mind when using the method. First, it assumes that the meaning of words remains stable. This means that the method does not necessarily provide accurate results if texts from long time periods are compared to each other. Second, the method assumes that the texts which are analysed contain information and arguments about the same issues.

Slapin & Proksch claim in their article (2008), that their approach strongly correlates with other methods of estimating policy positions. They have applied their technique to assess the positions of German parties in the post reunification era (1990-2005). Slapin & Proksch cross-validated their results by comparing them to the Comparative Manifestos Project left-right scale and three different policy scales for Germany between 1990 and 1998. They also compared their results to expert survey estimates on the left-right dimension and finally to estimates created by the Wordscores method. Slapin & Proksch write that the correlation between their Poisson scaling model and the other three methods is high. According to them this means that their method places parties in the political space in a similar way as the other tested methods.

In addition to the original publication of Slapin & Proksch (2008), this model and the Wordfish program have been also used by other authors:

- x Slapin & Proksch (2010): Authors examine how national parties position themselves in European Parliament (EP) speeches.
- x Köning, Luig, Proksch & Slapin (2010): Authors measure policy positions of veto players in parliamentary democracies, case Germany.

- x Proksch, Slapin & Thies (2011): Authors estimate Japanese party positions on three major policy dimensions.
- x Lo, Proksch & Slapin (2014): Authors use approach to examine the ideological clarity and ambiguity of parties and how the manifestos are written by collective actors and aimed at multiple audiences.

Slapin & Proksch originally created this program to analyse party positions. The basic assumption in my study is that the interest group manifestos for elections behave in a similar way as party manifestos. That is, the method could be used to extract political positions from interest group texts.

Both trade unions and employers' organizations usually prepare political manifestos for each parliamentary election. These manifestos describe the objectives of these organizations, which they want to include in the government's programme. I assume that the manifestos are the product of strategic work in these organizations, and hence represent their objectives. I have selected these manifestos as my primary sources. I intend to use only documents from SAK, STTK, AKAVA and EK. There are other employers' organizations which prepare manifestos as well, but I have decided to use only EKs manifestos, as it is the major employers' organizations in Finland.

Most of these manifestos are available from the internet and therefore easily accessible. SAK and EK have their manifestos directly in their respective internet pages. STTKs and Akavas most recent manifestos can also be found from internet. Earlier manifestos can be found from net-archives. As these documents are written in the Finnish language, I will next briefly examine if the Wordfish approach is usable with them.

4.3 Multi-language view to text processing and Finnish language

Lucas et al. (2015) write in their paper that in order to use automated methods to analyse text, the analyst must first ensure that the text is machine-readable. Statistical methods for text analysis are often language agnostic, while the tools for pre-processing the texts are not. In other words, the pre-processing of text data is an important step when using automated methods. Slapin's & Proksch's Wordfish uses a word frequency matrix as an input. This matrix must be prepared carefully. Important pre-processing issues are according to Lucas et al. (2015) stop word removal, stemming and lemmatization and compound words.

Stop word removal is according to Lucas et al. the process of removing extremely common but uninteresting words from texts. For example, in English words like "and" and "the" are removed. Most languages have lists of common stop words, which can be used by pre-processing programs.

In stemming, distinct variants of word forms are conflated or reduced to one form which may be the base form or just a technical stem. In a simple example of stemming, there are four possible forms of the word “cat” (cat, cats, cat’s cats’). They are stemmed to the common form “cat” (Kettunen & Baskaya, 2011). According to Lucas et al., stemming is useful in any language that changes the end of the word in order to convey tense or number. These languages include English, Spanish, Slovenian, French, modern Greek and Swedish. In the Wordfish manual Proksch & Slapin (2009) write that stemming has both advantages and disadvantages. The advantage is that then the term-document matrix has fewer unique words, which makes estimation more efficient. A potential disadvantage is that certain compound words might be reduced to a stem, thus meaning that information is lost.

Lemmatization is, according to Lucas et al. (2015), a process where the base forms of words are recognized and then grouped together. Instead of chopping off the end of a word, lemmatization is a more complicated algorithm. Lemmatization identifies the origin of the word and returns the common form of that word. Lemmatization works better for languages where conjugations are not indicated by changing the end of the word. It also works better for agglutinative languages which have a greater variety of forms for each individual word. Agglutinative languages include Korean, Turkish and Hungarian. Kettunen (2009) writes that stemming was found useful with also the Finnish language, but the best approach for Finnish language was lemmatization.

Some languages will frequently join two words that describe two different concepts. Some languages also split one word that describes one concept. These are called compound words or decompound words and they can decrease the efficacy of text analysis. This is because one concept of the word is hidden in many unique words or one concept can be split across two words. Lucas et al. give an example from the German language:

For example, the German word “Kirch,” or church, can be appended to “rat,” forming “Kirchrat” who is a member of the church council, or “pfleger” to form “Kirchenpfleger,” or church warden. If it is appended, the computer will not see “Kirch” as an individual concept. Decompounding this case would separate “Kirch” from its endings. (Lucas et al., 2015)

In other cases two words can form one concept, as for example in English “national security” and “social security”. Both of these concepts have word “security” in them. They are still very different concepts and that’s why they should be calculated as separate concepts. Compounding languages include German, Finnish, Danish, Dutch, Norwegian, Swedish and Greek. Finally, according to Lucas et al., some languages

like Chinese, Japanese and Lao do not have spaces between words. Thus text analysis techniques that rely on the word as a unit of analysis cannot naturally parse the words into individual units.

It is an important question if Slapin's & Proksch's Wordfish can be used for texts which are written in Finnish. So far most of the computerized content analysis has been done to Indo-European languages. As the Finnish language is a member of the Finnic group of the Uralic languages, it's not closely related to these languages. Wordfish has been successfully used with both German (Slapin & Proksch, 2008) and Japanese (Slapin, Proksch & Thies, 2011). As German and Japanese which are very different types of languages from each other, it is reasonable to assume that Wordfish can be also tested using texts in Finnish.

According to Kettunen (2009), the Finnish language has complex morphology. Morphology is the part of linguistics that studies word structures and formation. An important part of the morphology is the inflectional morphology, which focuses on the formation of inflected word forms. Inflection is one way to express grammatical relations between words. English and Chinese have a simple morphology. More complex languages include Slavic, Turkic and Finno-Ugric languages. One of the main effects of inflectional morphology is that forms of words may vary. The degree of variation might be limited or be quite complex. For example, the noun "cat" has four distinct forms in English, but 26-28 different forms in Finnish (including plural and singular cases).

Wordfish uses word frequencies to calculate weighted positions for the texts. The Finnish language has complex inflection. This means that the texts will have a significant number of unique words, which will affect the analysis. One of the solutions to overcome morphological variations is stemming and lemmatization. Moreover, as Lucas et al. (2015) mention, Finnish is a compounding language. This means that compound words in text data need to be pre-processed before the analysis.

As Wordfish also uses word frequencies, larger text data should make the analysis more accurate. Each unique word gets its weighted score based on its occurrences in different texts. Therefore, even inflected forms of words will get their correct weighting if they have been consistently used in manifestos. For example, all of the words in Table 1 are various inflections the concept of digitalization, but they just have different endings.

	Document A	Document B	Document C
digitalisaatio	8	3	2
digitalisaatiossa	7	2	1
digitalisaation	11	3	0
Total	26	8	3

Table 1. Wordfish categories

Wordfish counts each of these words separately, but the documents will still get their correct weights as these words are used consistently. In document A, they speak more about digitalization than in document C. Document B ranges in between, but is (slightly) closer to document C.

In this thesis I will use lemmatization as a processing method. I decided to use manual lemmatization, as it allows me to understand the details and results better than automated process. This manual lemmatization process is explained in detail in chapter 5.2. I also pre-process the text data according to Slapin's & Proksch's (2009a) instructions. They advise that party names and numbers should be removed from a text and every word should be transformed to the lower case. Next I will validate this approach using party manifestos from the elections of 2007, as well as a few expert surveys as a comparison.

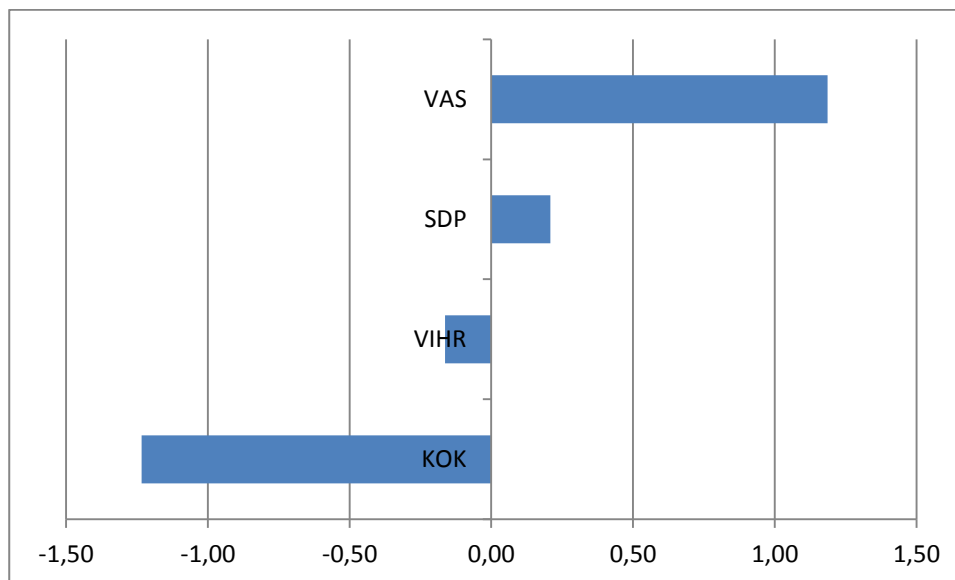
4.4 Validation of the Wordfish results

In this part of my thesis, I will compare results of the Wordfish analysis to an expert survey. I will use party manifestos from the parliamentary elections of 2007 for the Wordfish analysis. I will compare the results to a study of the elections 2007 by Paloheimo (2008).

For the Wordfish validation, I have selected election manifestos from the National Coalition party (Kokoomus, 2007), the Social Democrat party (Suomen Sosiaalidemokraattinen Puolue, 2006), the Green party (Vihreät, 2006) and the Left Alliance (Vasemmistoliitto, 2007). Paloheimo (2008) writes that in his 2007 electoral study, the National Coalition party was perceived as the most right wing party by its voters. The Left Alliance was the most left wing party according its voters. I have chosen these parties for this validation as they represented the different extremes in the Finnish parliamentary elections in 2007. The Social democrat party voters identified themselves as being the second most left wing after the Left Alliance voters. I selected this party for this validation because the Left Alliance was a quite small party, while the Social democrat party was the large left wing party. Finally, the Green Party voters identified the Green party as a left wing party, just behind the Social democrat party. In Paloheimo's study, the green party had high values towards multiculturalism and pluralism. The green party also had lowest values for traditional morals. This can be seen in Figure 3 below, where the Green Party is positioned at the bottom. I

have selected the Green party for this validation, because it is interesting to see how the Wordfish analysis would position the Green Party using just one dimension.

The manifestos were downloaded from the respective party sites. As pre-processing all upper case words were transformed to lower case. Furthermore, the party names, numbers and punctuation were removed. The stop words were also removed before analysis (the list of stop words which have been removed is in Appendix 2). I selected lemmatization as processing method instead of stemming, as it was the best method for Finnish language (Kettunen, 2009). I did not use automated lemmatization, but I processed the results using manual lemmatization. In this manual analysis I also analysed the compound words in these manifestos. Manual lemmatization was more work intensive, but it allowed me to study the details of the results better than automated lemmatization. This manual lemmatization process is explained in detail in chapter 5.2. The results of the analysis are shown in Graph 1.



Graph 1. Party position results from Wordfish.

The expert survey by Paloheimo (2007) uses interview data from the 2007 election study. The results were coded and calculated into policy positions for the political parties. The difference between the Wordfish results and this expert survey are the dimensions. Paloheimo's results are using two dimensions: Left vs. Right (dimension 1) and multiculturalism vs. traditional values (dimension 2). Paloheimo's results are presented in Figure 3.

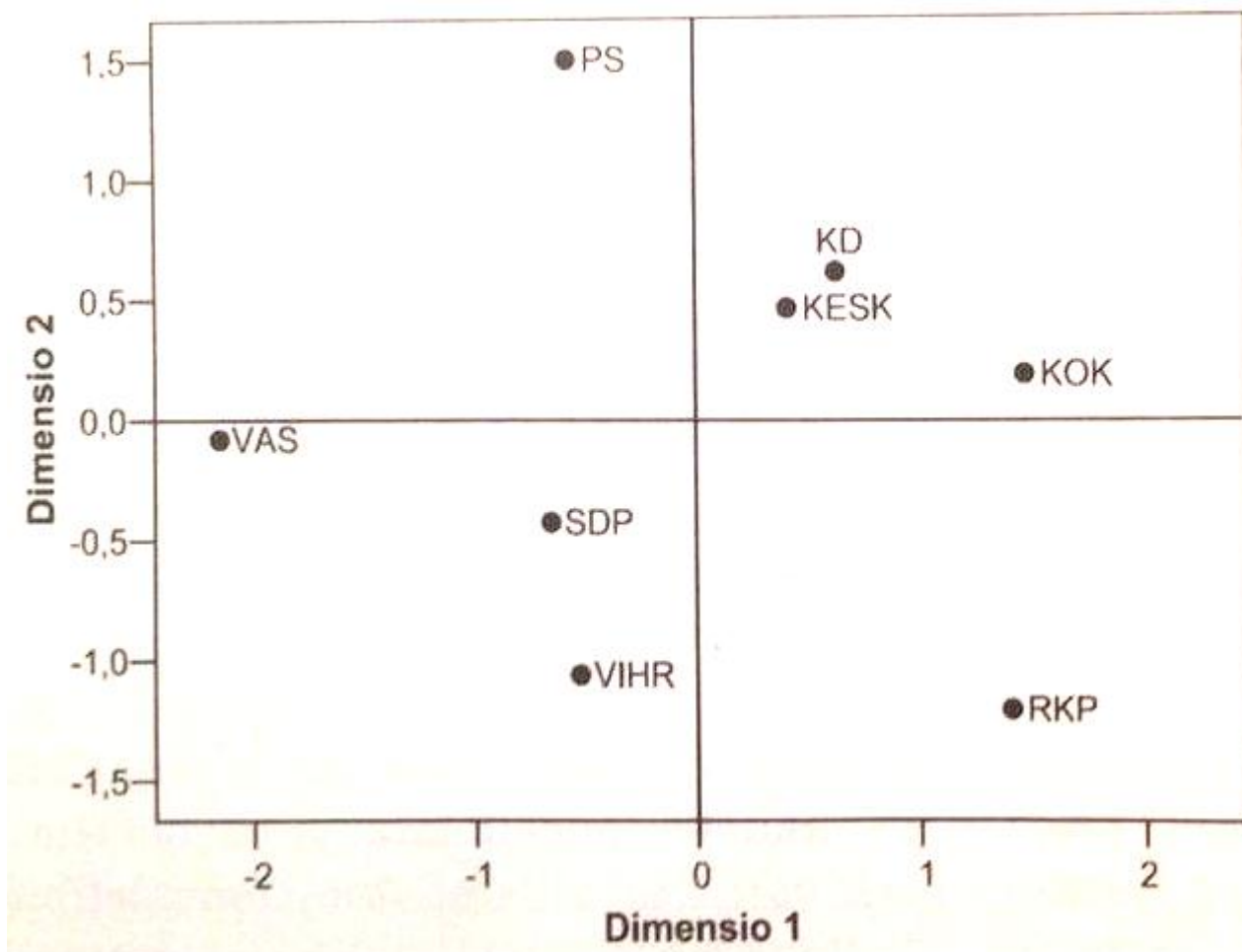


Figure 3. Party position results from Paloheimo, 2007.

If we compare the two results, we can see that in the left-right dimension the results of both Wordfish, as well as Paloheimo's expert survey, look similar. The National Coalition party (KOK) is at one end of the scale, while the Left Alliance (VAS) is at the other. The Green party (VIHR) and the Social Democrat party (SDP) are near the centre, but SDP is closer to VAS than VIHR. From this we can see that Wordfish produced a similar results as an expert survey, in this case even with texts which are in the Finnish language. This of course does not mean that the method will always produce results which are comparable to expert surveys. Nevertheless, this result supports Slapin's & Proksch's (2008) claim that their approach can produce accurate results from texts in almost any language.

There is also another way to validate the results. According to Slapin & Proksch (2008) there should be a particular pattern in these word frequencies. They write that frequent words (conjunctions, articles etc.) should not discriminate between party manifestos, because they do not contain any political meaning. In contrast, words which are used more infrequently are more likely to be part of politically relevant language. These words could then discriminate between parties. Wordfish also produces a word list with a weighted

value for each unique word from all of the analyzed manifestos. That is, for each unique word in all of the manifestos. I analysed the word lists with a process which is similar to lemmatization. I collected the words which referred to one concept and then I calculated a weighted value for these concepts. The results of this are shown in Table 2.

To analyse the word frequencies which are assigned to words by Wordfish, I have used Paloheimo's (2007) study as a framework. In this study Paloheimo analysed the parliamentary election of 2007. He concluded that improving entrepreneur's situation and relieving the taxation has been a key aspect for the National Coalition party (Kokoomus). For left wing parties an improvement of public services and helping poor people was more important. In the Wordfish word frequency list, words have positive or negative weights between 5 and -5. Positive values were associated with the left wing party and negative values with the right wing party (as the spectrum/scale in in Figure 3.).

If we first check the words which had negative values, the words which were related to entrepreneurs had a rather small weighting of only -0,29. The words which had meaning of enterprise had a weighting of -1,89. Words related to tax deductibility had a weighting of -1,89. It is also interesting to note that words which were related to market economy had a weighting of -2.22.

On the positive side of the scale, words which were related to welfare society had only a weighting of 0,71. The words which were related to the welfare state had a weighting of 1,90. Words which were related to welfare services had a weighting of 1,94. Word which were related to poverty had a weighting of 1,86. Words which were related to equality had a weighting of 1,43. The results are in table below. The full list of Finnish words related to each word below is in Appendix 1.

Word	Weighting		Weighting
welfare services	1,94	Market economy	-2,22
Welfare state	1,90	Enterprise	-1,89
Poverty	1,86	Tax deductibility	-1,89
Equality	1,43	Entrepreneur	-0,29
Welfare society	0,71		

Table 2. Word weightings related to the framework.

From these weightings we see that the results of the Wordfish algorithm can indeed separate manifestos of left wing and right wing parties. As in Paloheimo's study, words which are related to entrepreneurs, enterprises and lowering the taxes have negative weightings in the Wordfish results. They are linked to the right wing party. Words related to welfare, public service and poverty have positive values, and thus are

linked to left wing party. The result can be also compared to the graph produced by Comparative Manifestos Project.

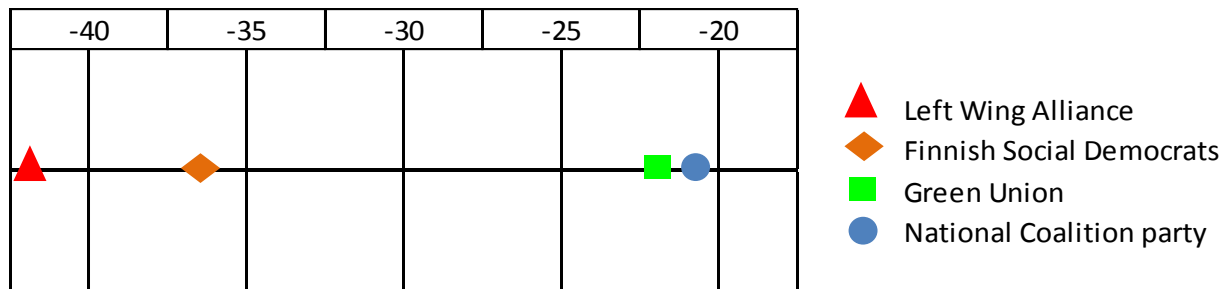


Figure 4. Party positions of 2007 elections, left-right position (The Manifesto Project, 2016).

In Figure 4 the order of the parties is similar to the one shown in Figure 3 and Graph 1. The National Coalition party (KOK) is in one end of the scale, while the Left Alliance (VAS) is in the other. When comparing this graph to Figure 3 and Graph 1, the difference is that the Green party is much closer to the National Coalition party. Also the Social Democratic party is closer to Left Wing Alliance. The reason for this difference might be because all of these methods measure a slightly different thing. The Wordfish results show only one dimension, which is not defined in advance. In contrast, the expert survey by Paloheimo (2007) uses two dimensions which might be defined before the analysis. The Manifesto project codes the documents in pre-defined categories, and Graph 2 shows only one of these dimensions. In other words, Wordfish shows the difference in texts without defining what that dimension is. Expert surveys and manifesto coding show how the manifestos fit into previously defined dimensions.

As a summary, it is plausible to say that Wordfish as method can produce useful results also with Finnish texts. This analysis shows both the benefits and limitations of this method. When comparing Wordfish to other methods of policy positioning, it is easy to use. The algorithm is ready, and the user only needs to gather and prepare the manifestos. Moreover, Wordfish can be used without defining dimensions before the analysis. On the other hand, the limitations are also quite obvious. First of all, this approach can only weight words in one dimension. In Figure 3 Paloheimo has positioned parties to two dimensions, but Wordfish uses only one dimension. And while the algorithm is easy and quick to use, it still needs some technical skills in the coding language R. The data gathering is time consuming, as the political manifestos (which usually have a lot of graphic elements) need to be converted to machine readable text files. This needs to be done mostly by hand.

As the approach has now been presented, I will turn my focus towards the research questions. I will examine the political changes of the neo-corporatist actors.

5 Policy position analysis

In this chapter I will present the results of the policy analysis. I will first briefly describe the manifestos which I have chosen, as well as the method which I used to prepare and analyse the manifestos and data. After that I will present the results of the analysis. I will first present the overview time series of policy positions. Then I will discuss the meaning of these policy positions. I will discuss the difference between a high position (which is the employer's organization) and a low position (which is linked the employee organizations). I will also present an analysis about the increase and decrease of the usage of specific words and concept between 2003 and 2015. Next I will present the differences which distinguish each organization from others. In other words, I will present the issues that they focus on more than the others organizations in this analysis. Finally, I will discuss the implications of this analysis and I will reflect the results to the theoretic background of this thesis.

5.1 Manifesto selection and preparation

I have analysed documents from three trade union confederations and from the main employers' organization. The trade union confederates are the Central Organisation of Finnish Trade Unions (SAK); the Finnish Confederation of Salaried Employees (STTK) and the Confederations of Unions for Academic Professionals in Finland (AKAVA). The main employers' organization is The Confederation of Finnish Industries (EK). In this analysis I will refer to these organizations with their abbreviations.

These organizations represent the two corners of Finnish tripartite system of social and labour interest politics. The third corner of this tripartite system is the government. That is why these organizations try to influence the government composition especially during elections. These organizations prepare election manifestos where they disclose their objectives. In these manifestos these organizations declare their wishes for future government programme. These manifestos are endorsed by the respective boards of these organizations. In this thesis I assume that these manifestos reflect the policy position of these organizations.

Documents from following general election years have been used:

- x Akava: 2003, 2011 and 2015
- x STTK: 2003, 2011 and 2015
- x SAK: 2003, 2007, 2011 and 2015
- x EK: 2007, 2011 and 2015

As Lucas et al. (2015) wrote in their article, there are unprecedented rates of textual data available for analysis. I have left Akava's and STTKs 2007 manifestos out of this analysis, as they were not available online. This shows that this kind of analysis can be done using only data which is available online. The lack of these manifestos should not alter the results of this analysis. Slapin & Proksch (2008) claim that their approach can be used to produce accurate time series, even if some of the manifestos are missing. EK was established during 2005, and that is why there are no election manifestos from them for the elections in 2003.

Below in Table 3 there is amount of words in each of these documents. The total word count of all manifestos is 71 560.

	2003	2007	2011	2015	Total/org
Akava	2739		3924	3713	10376
STTK	1606		5086	5962	12654
SAK	10193	7779	9126	7711	34809
EK		6781	3861	3079	13721
Total/y	14538	14560	21997	20465	

Table 3. Word count from each manifesto.

From these word counts we can see that SAK manifestos are quite extensive. Because there are four manifestos from SAK and only three from other organizations, the word count is larger. These missing manifestos should be still taken into consideration in the analysis of a term-document matrix.

There are three different documents as a result of this analysis. These documents are a) a term document matrix, b) the Wordfish output per document c) the Wordfish output per word. Below in Table 4 is the explanation of each of those result document types.

a)	Term document matrix	Matrix which has each unique word from all of the manifestos, and word count per manifesto.
b)	Wordfish output per document	List of analysed manifestos and weighting for each manifesto.
c)	Wordfish output per word	List of each unique word in all of the manifestos, with its weighting (the policy position of this word) and fixed effect number (how common this word is in the texts). Total count of unique words was 18 894.

Table 4. Result documents.

The manifestos have been prepared in following phases: Gathering of documents, manual pre-preparation, automatic pre-preparation and automatic analysis by the Wordfish software. Below in Table 5 is a description of these phases:

Manual gathering of documents	In this step the manifestos were selected and downloaded from organizations internet sites. In a few cases the internet archive was used.
Manual pre-preparation	In this step the manifestos were transformed to simple text files, and some parts of the manifestos were removed (indexes, addresses, abbreviations of organizations, and names).
Automatic pre-preparation	Using the R language script, following modifications were made to the texts: <ul style="list-style-type: none"> • Everything was transformed to lower case • Numbers were removed • Extra white spaces were removed • Punctuation was removed • Stop words were removed (short list of most common Finnish words) Result of this step: a) term document matrix The code used in this analysis can be found from appendix 3.
Analysis by the Wordfish software	Text documents were analysed by Slapin & Proksch (2009b) Wordfish software. Results of this step: b) Wordfish output per document and c) Wordfish output per word.

Table 5. Document preparation.

After the three results documents were ready, they were combined into a single table. Graphs were created using Microsoft excel tools and analysed. Next I will present the result of this analysis from three different angles.

5.2 Results of analysis

In this part I will present the results of the analysis. First, I will shortly describe how the analysis was done. I have combined the term document matrix and the Wordfish output per word into a single table. This table was then filtered and sorted in three different ways:

- x Dimension. The Wordfish software gives weighting scores to the documents in only one dimension. Manifestos in this study were given values roughly between 2.0 and -2.0. By this filtering my aim was to find out what these extremes signify. In other words, I intended to compare the manifestos with high and low weightings. I will examine if there is any difference in words and word categories between these manifestos. This was done by sorting the words which had high or low values.

- x Time series. I intended to examine the change in usage of words between 2003 and 2015. My aim was to find out if and what kind of word usage has increased or decreased. This was done by calculating the word count difference between years 2003 and 2015. Then identifying rising or decreasing trends and sorting the words based on that. As mentioned before, the word counts are inaccurate because of different number of words per document per year. Therefore I have used the comparative numbers in the results. These comparative numbers are calculated using the number of total words in the manifestos.
- x Focus points. Last I examined the different focuses of each organizations document. Each document was given weighting in one dimension, but here my aim was to examine what other dimensions might be hidden in these words. For this I calculated for each organization the words which were used with a higher frequency in their manifestos when compared to the manifestos from any of the other organizations. The table was sorted using these words. As also here the total number of words in the documents could cause inaccuracies, I adjusted the results accordingly.

After filtering and sorting the table I identified different concepts from individual words. Concepts were a collection of different words which referred to a same issue, object or concept. Usually these words were different grammatical cases of inflections of the same word, or words with very similar meaning. For example “digitalization” was one of these concepts.

These concepts were then grouped with similar concepts to categories, and the categories were given a name which represented them. The category name is something which represented the concepts. The word count for each year, per organization and average weight was calculated for each category. Finally, these categories are collected in one table, which then presents the dimension, time series or focus. Below in Figure 5 is an example of two concepts and one category.

	Akava			EK			SAK				STTK				Total per year			
Digitalization	2003	2011	2015	2007	2011	2015	2003	2007	2011	2015	2003	2011	2015	Weigh	2003	2007	2011	2015
digitalisoitumisen	0	0	0	0	0	1	0	0	0	0	0	0	0	3,93	0	0	0	1
digitalisoitumisella	0	0	0	1	0	0	0	0	0	0	0	0	0	1,03	0	1	0	0
digitalisointia	0	0	0	0	1	0	0	0	0	0	0	0	0	1,85	0	0	1	0
digitalisoinnilla	0	0	1	0	0	0	0	0	0	0	0	0	0	2,59	0	0	0	1
digitalisoimalla	0	0	0	0	1	0	0	0	0	0	0	0	0	1,85	0	0	1	0
digitalisoida	0	0	0	0	1	0	0	0	0	0	0	0	0	1,85	0	0	1	0
digitalisaatiota	0	0	0	0	0	2	0	0	0	0	0	0	0	4,88	0	0	0	2
digitalisaatiossa	0	0	0	0	0	0	0	0	0	0	0	0	1	1,57	0	0	0	1
digitalisaation	0	0	1	0	0	3	0	0	0	0	0	0	3	3,08	0	0	0	7
digitalisaatio	0	0	0	0	0	1	0	0	0	1	0	0	0	1,63	0	0	0	2
Totals	0	0	2	1	3	7	0	0	0	1	0	0	4	2,43	0	1	3	14

Figure 5. Digitalization concept word counts.

In Figure 5 there are words which are related to concept of “digitalization”. The second concept which I use for this example is bio economy. It refers to words which have bio- prefix and refer to economy production or industry. I have collected these two concepts (and other similar concepts) under category of “Technology”, which is shown in Figure 6 below.

	Akava			EK			SAK				STTK				Total per year			
Category: Technology	2003	2011	2015	2007	2011	2015	2003	2007	2011	2015	2003	2011	2015	Weighth	2003	2007	2011	2015
Digital / digi-economy	0	0	2	2	6	10	2	0	0	0	0	0	4	2,51	2	2	6	16
Digitalization	0	0	2	1	3	7	0	0	0	1	0	0	4	2,43	0	1	3	14
Bioeconomy	0	2	3	1	0	4	4	2	1	5	0	0	6	0,80	4	3	3	18
Cleantech	0	0	0	0	1	5	0	0	0	2	0	0	1	3,07	0	0	1	8
Tekes	0	0	2	2	1	5	2	1	0	5	0	1	0	1,08	2	3	2	12
Internet	0	0	0	0	0	6	0	0	0	1	0	1	1	3,21	0	0	1	8
Automatic	0	0	0	0	0	1	0	0	2	3	0	0	1	1,25	0	0	2	5
Technologies	3	3	1	4	6	6	7	5	4	4	2	8	6	1,09	12	9	21	17
Information and communications	0	1	1	3	3	0	4	3	0	0	0	2	7	1,41	4	6	6	8
Networks, information security	3	5	2	3	3	3	3	0	0	0	1	4	7	1,82	7	3	12	12
Totals	6	11	13	16	23	47	22	11	7	21	3	16	37	1,87	31	27	57	118

Figure 6. Technology category.

In Figure 6 we can see that the digitalization and bio economy have been combined with other similar concepts to a category called “technology”. This category was used to examine the usage of these words between 2003 and 2015. This and other categories are then combined in Table 6 below.

	Year			
Categories	2003	2007	2011	2015
Employment	108	92	230	218
Finland and society	75	60	88	136
Technology	31	27	57	118
Knowledge & skilled	58	27	70	97
Others	8	27	21	69
Totals	280	233	466	638

Table 6. Categories combined.

The technology category is part of a time series comparison, where word usage changes are examined. The total numbers are compared to the number of words in the manifestos and the comparison number is calculated.

As a summary, the analysis has been done by using manual lemmatization. This was done by sorting and filtering to find the words which should be examined. Then these words are combined with words with same or close meaning to concepts. These concepts are collected to categories which all have similar meaning. These categories are then used to examine the point of interest. Next I will present the results of these three different viewpoints to this data.

5.2.1 Dimension

One of the outputs of Wordfish is the weighting of each document. This summary represents every analysed text/document with a single weighting. The document weighting is based on the word weightings in that document. Below in Table 7 are the analysed documents and their weights.

	Year			
	2003	2007	2011	2015
SAK	-1,51	-1,11	-0,87	-0,96
Akava	-1,02		1,08	1,06
STTK	0,54		0,34	0,36
EK		-0,09	0,59	1,61

Table 7. Documents and their weights.

The document weights range between -1,5 and 1,6. These weightings demonstrate the policy position of these documents in one dimension. The Figure 7 below shows the policy positions and their change during period from 2003 to 2015, which is based on the weightings of the analysed documents. As there were no values for Akavas and STTKs 2007, the values of previous election year have been used in graph.

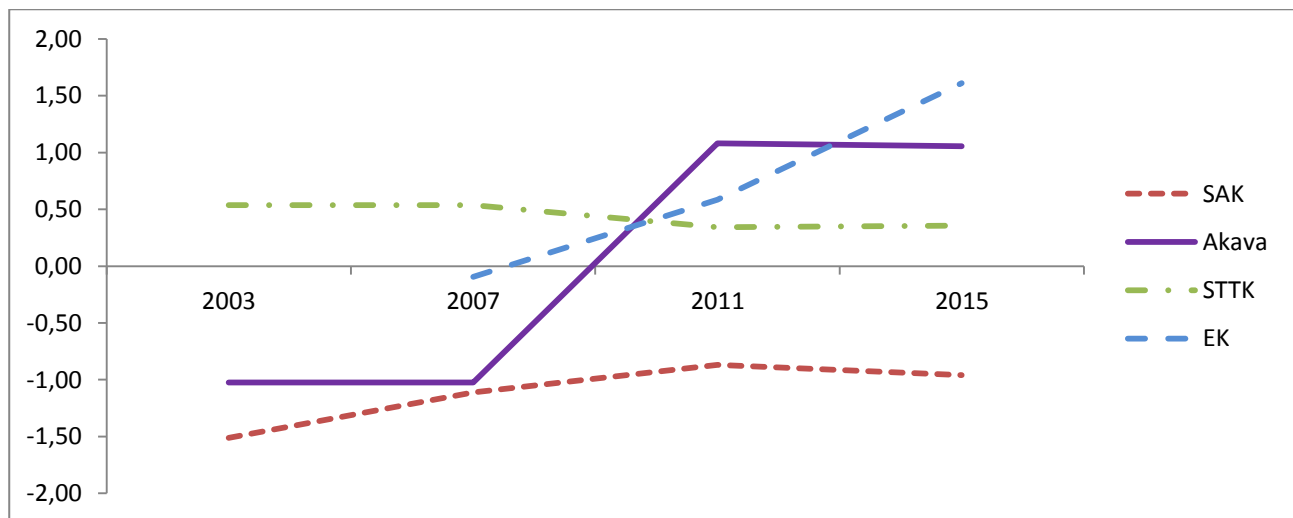


Figure 7. Policy positions and time.

From Figure 7 we can see that there has been trend where document positions of SAK, Akava and EK have moved towards larger weightings. Akava's documents show the largest shift. The shift of EK's is also pronounced. SAK's shift has been quite moderate and STTK's position has remained quite stable. These shifts mean that both Akava's and EK's usage of language has changed profoundly during this period. SAK's usage has changed less and STTK's documents use a quite similar language throughout this period.

The essential question here is that what this dimension between large and small values means? What are the words which denote large weightings and which denote small weightings? What kind of concepts and categories are in the manifestos of organizations, which had large or small weightings in their documents? Below in Table 8 are some categories which are linked to high, medium and low positions. As described in before, each category consists of a number of concepts and each concept consists of words. In the table below the total count of words is in the “Words” column. The number of words per year and per organization is also shown. The weight column in this table is the weight of that category. This is average weight of the concepts in that category, which then are weights of the words in that concept.

Categories	Words	2003	2007	2011	2015	Weight	EK	AKAVA	STTK	SAK
Entrepreneurship and business	387	47	115	119	106	1,69	193	93	31	70
Technology	159	24	29	38	68	1,59	51	27	42	39
Government budget	284	23	54	112	95	1,40	91	41	61	91
Globalization and internationality	192	29	37	83	43	1,40	64	30	29	69
Research & education	439	72	53	184	130	1,39	101	154	86	98
Governance	1838	288	376	587	587	0,99	390	410	343	695
Immigration	64	11	12	19	22	0,99	13	8	11	32
Economy	1117	216	220	333	348	0,75	294	181	204	438
Environment	87	20	19	28	20	0,40	25	6	14	42
Finland & Finnish people	808	163	192	219	234	0,24	226	69	123	390
Human rights and society	569	181	104	150	134	0,11	71	41	115	342
Tax planning and tax evasion	20	0	0	4	16	0,04	0	1	3	16
Employment	1313	332	228	429	324	-0,08	80	153	226	854
European union and Europe	129	49	34	28	18	-0,21	15	27	6	81
Trade unions and union activity	164	62	32	46	24	-0,45	7	32	18	107

Table 8. Categories with high, medium and low weighting.

In Table 8 we can see the categories ranging from highest to lowest weighting. The full concepts and categories are in Appendix 4. Next I will shortly present each category and the concepts within them.

The highest weightings were in the category of entrepreneurship and business. This category had concepts which referred to enterprise subsidies, business world, business oriented activities, entrepreneurship and business activity which all had had average weightings of over 2,0. This category also included concepts of competition, leadership and management, which had average weightings of roughly 1,6.

The next category with high weightings was technology. In this category the concepts referred to technologies or trends which were related to technology. This category included concepts of information networks, digitalization and information systems and databases, all of them having an average weighting over 2,0. Also general technology and technical concepts (which had words which generally referred to

technology) had high average weightings of around 1,6. The concept of E-services also had average weighting of 1,4.

The category of government budget included concepts which indicated an unbalanced budget such as sustainability gap and indebtedness. They had high average weightings of 2,0-1,5. Concepts which referred to corrective measures, such as balancing, cutting government expenses and cost-effectiveness, had average weightings of 1,6-1,3.

The category which referred to globalization and internationality had average weighting of 1,40. It included concepts which referred to internationalization globalization.

The category of education and research included concepts which referred to colleges and universities, university education and degrees with average weighting of 1,9. Concepts which referred to innovations, research, information and knowledge had average weightings between 1,7 and 1,5.

The category which refers governance had medium high weightings. Concepts in this category referred to effectiveness, overlapping activities and quality. They had an average weighting between 2,0 and 1,6. Likewise, references towards control, decision making, improving effectiveness and regulation had medium high average weightings between 1,3 and 1,0.

The Immigration category had medium weightings. It included concepts which refer to work related and immigration with an average weightings of 1,6, but also concepts which refer to immigration policies and immigrants with low weightings of 0,6 to 0,2.

The Economy category comprised a lot of different concepts. Concepts which refer to the Euro (as a currency), future, competitor countries, economic growth and exports scored medium to high weightings (2,1-0,8). Concepts which refer to efficiency, competition ability, reductions, economic activity, purchasing power and development have medium weightings between 0,8 to 0,35. Concepts which refer to economic growth, competitive advantage and capital have low weightings between 0,26-0,33.

Environment is a small category, with only has a few concepts. They have an average weighting of around 0,4.

In the category Finland and Finnish people there are only two concepts but there are quite a lot of words which refer to them. The first concept is refers to Finland as a whole. Its weighting is 0,4. The second concept is Finnish people, with a weighting of 0,08.

The category of human rights and society had also low average weightings. Concepts which referred to basic rights and racism had average weighting of -0,7 to -0,6. Concepts which referred to trust, people, collective activities, society, ethics and justice had average weighting between -0,4 and 0,25. Concepts which referred to income inequality and distribution of income had average weightings between -0,01 and 0,1.

In category of tax planning and tax evasion the concepts which referred to tax planning, tax evasion and tax havens had low average of weighting of between -0,3 and 0,6.

The category of employment included concepts which referred to unemployment, the unemployed, unemployment funds or unemployment support. These concepts had weighting between 0,2 and -2,0. Concepts which referred to collective bargaining agreements had average weighting of -0,9. Concepts which referred to health insurance, work force, low income, occupations, working conditions or uncertainty had average weightings between 0,2 and -0,09.

In the category of European Union and Europe the concepts which refer to European union, Europe and Europeans had average weighting between -0,4 and 0,03.

The last category of Trade unions and union activity included concepts which referred to trade union activities. These concepts had low average weighting of -1,5. Also concepts which referred to union representatives in workplaces had low average weighting of -1,4. References to tripartite agreement and actors, business policy, social contract, tripartite actors, opportunities to influence and cooperation had low average weightings of 0,5 to -0,9.

As a summary of this analysis, it can be said that weightings can indeed distinguish between documents. The documents which had higher weighting tend to focus more on entrepreneurship, business, technology and globalization. They also are more concerned about government spending, governance and research and education. The documents which had low average weightings were focused on the employment issues and rights. They are also focus more on Finnish people, Europeans and European Union. A minor but interesting point is that the reference to the concept of trade unions ("Ammattiliitto" in Finnish) has drastically decreased between 2003 and 2015. 2015 was the first year when SAK didn't have any references

to the concept of trade union as movement (ammattiyhdistysliike). This analysis was focused on the main dimension of the documents. The next analysis takes a look into the change between 2003 and 2015.

5.2.2 Time series

This analysis focuses on the changes in word usage between the years 2003 and 2015. I will first present the categories and concepts where usage has increased. Then I will present the categories and concepts where usage has decreased. Table 9 below lists categories which usage has increased. The difference is the percentage difference between 2003 and 2015. The comparison is the number of references in that year divided by the total word count per that year and multiplied by 100.

	Year				
Categories where usage has increased	2003	2007	2011	2015	Difference
Employment	108	92	230	218	202 %
Employment comparison	0,743	0,632	1,046	1,065	143 %
Economy	8	27	32	78	975 %
Economy comparison	0,055	0,185	0,145	0,381	693 %
Technology	31	27	57	118	381 %
Technology comparison	0,213	0,185	0,259	0,577	270 %
Knowledge & skilled	58	27	70	97	167 %
Knowledge & skilled comparison	0,399	0,185	0,318	0,474	119 %
Others	75	60	77	127	169 %
Others comparison	0,516	0,412	0,350	0,621	120 %
Total	280	233	466	638	
Total words per year	14538	14560	21997	20465	

Table 9. Usage increased.

Table 9 shows in which categories the usage has risen significantly. In Figure 8 below are the comparison numbers per category displayed as a graph.



Figure 8. Increase of usage.

From the graph it can be seen that there is decrease of use for most categories in 2007, but that could well be because there are no documents from Akava and STTK from 2007. The data points for 2003 might also be a bit inaccurate, as there is no document from EK from that year. But in 2011 and 2015 the usage of all categories except employment has risen. Next I will examine these categories.

The first category is **employment**. This category includes concepts which are related to work and employment, careers, unemployment and the employment rate. Next category is **economy**, which includes concepts of regulation, global, market-based, tax leaks and tax havens, wellbeing services and competitor countries.

There has been a pronounced increase of words related to the category of **technology**. This category includes concepts which refer to digital or digitalization, bio- or cleantech, to internet, automatization or information technology. The next category refers to **knowledge and skills**. This category includes concepts which refer to knowledge requirements, knowledge intensive work, knowledge economy and also to people with skills and knowhow. The last category is category of **others**. That category includes concepts which refer to environment, Finland and the government.

I will next present the words whose usage has decreased. Below in Table 10 are the categories for which the usage has decreased the most. The difference is percentage difference between 2003 and 2015. The

comparison is the number of references in that year divided by the total words per that year and multiplied by 100.

	Year				
Categories where usage has decreased	2003	2007	2011	2015	Difference
Finland & society	135	75	78	63	47 %
Finland and society comparison	0,929	0,515	0,355	0,308	33 %
Employment	69	44	45	31	45 %
Employment comparison	0,475	0,302	0,205	0,151	32 %
Trade union activity	71	27	46	28	39 %
Trade union activity comparison	0,488	0,185	0,209	0,137	28 %
Economy	40	62	51	30	75 %
Economy comparison	0,275	0,426	0,232	0,147	53 %
Justice	38	21	29	25	66 %
Justice comparison	0,261	0,144	0,132	0,122	47 %
Education / learning	36	10	25	17	47 %
Education / learning comparison	0,248	0,069	0,114	0,083	34 %
Totals	389	239	274	194	
Total words per year	14538	14560	21997	20465	

Table 10. Usage decreased.

From Table 10 we can see the categories with a significant decrease of usage. Figure 9 below shows the comparison numbers per category in a graph.

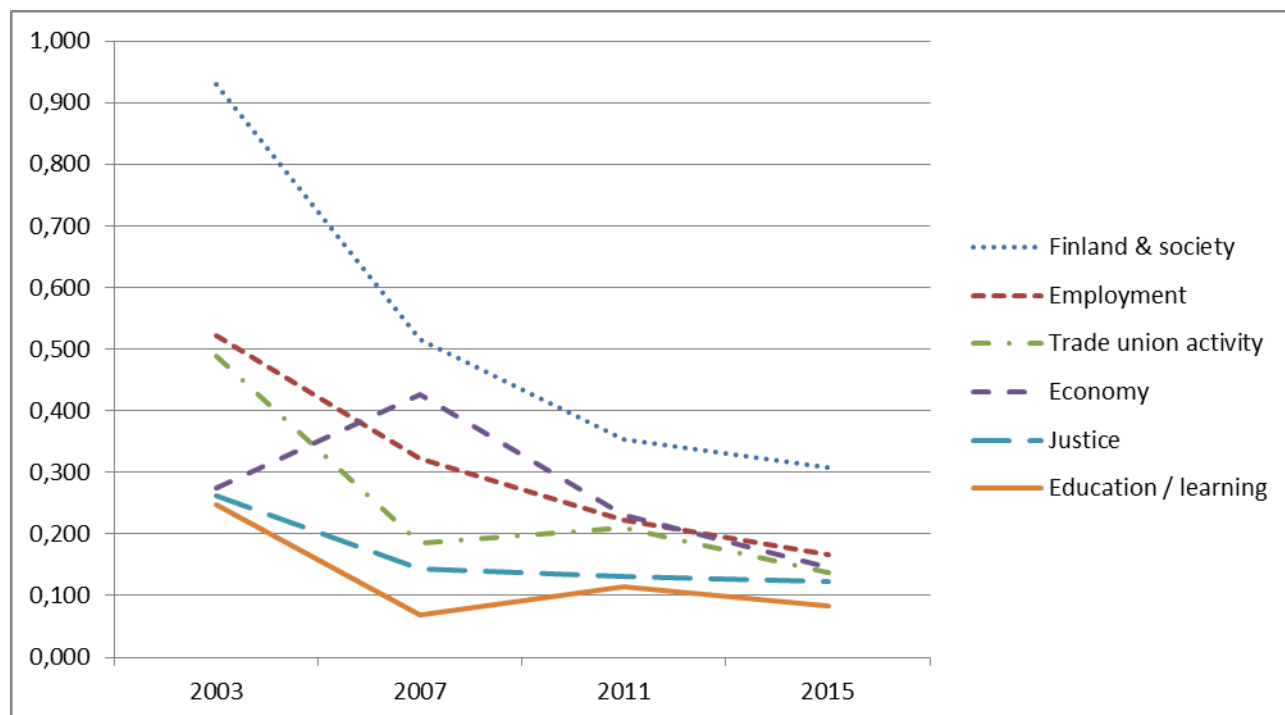


Figure 9. Decrease of usage.

From Figure 9 we can see that especially the category “Trade union activity” has decreased most drastically. Also the categories “Finland & society”, “employment” and “Education / learning” have diminished. Next I will examine these categories more closely.

The first category is Finland and society. This category includes concepts which refer to society and people or nation. Concept which refers to civil society and citizens has decreased. There is a slight decrease in concepts which refer to social politics or social responsibility. The next category is employment. This category refers to concepts of labour force and need of labour force. There is also a decrease in the usage of the concept of occupational safety. It is important to notice that even though this category has a similar name as the category in Table 9, it does not refer to same concepts. The concepts which are more used refer to careers, unemployment and unemployment support. In contrast, the concepts which are used less refer to workforce as general, need of workforce, employment rate and employee safety. This shows that even though the discussion of employment might stay at a stable level, the concepts inside that discussion do change. This might signify that the power relations of the actors in employment discussions are changing.

The category of trade union activity refers to concepts of trade unions, trade union activities or tripartite actors. There is also decrease of concepts of agreements or agreeing and dialogue. The next category Economy refers to only two concepts. These concepts are competitiveness and insurances.

The category of justice also includes only two concepts. These concepts refer to equality and livelihood. The last category of education and learning has also only two concepts which refer to studies and learning.

As a summary, it can be said that there have been some ongoing trends. First of all, references to technology, skills and knowhow are increasing. Second, there is trend related to employment, where certain aspects of it are increasing and others decreasing. There is also a trend where references to trade union activity, society and justice are decreasing. Next in this analysis I will examine the focus points of each actor.

5.2.3 Focus points

This part of the analysis focuses on the different key areas of each organization. I will examine those concepts and categories which individual organizations use more than other organizations. I will first examine EK, then SAK, Akava and finally STTK. I have collected the categories to which each organization refers most in the following tables. In other words, these are the categories of words which are referred most by each organization. In these tables the references are presented as comparison numbers. The

comparison number is number of references in that year or by those organizations manifestos, divided by the total words per that year or total by those organizations manifestos and multiplied by 100. When comparing organizations, the total words in organizations manifestos are used. When comparing years, the total of words in the manifesto of an organization for that particular years is used. The first organization to be examined is EK. Table 11 lists the focus points of EK as comparison numbers.

Focus points of EK					Year		
	EK	AKAVA	STTK	SAK	2007	2011	2015
Business & Entrepreneurship	2,12	0,53	0,34	1,36	2,27	2,64	1,14
Society & state	2,65	1,17	1,28	2,61	1,80	2,93	4,16
Economy	4,73	2,01	1,98	4,07	4,62	5,80	3,64
Energy	0,20	0,05	0,07	0,17	0,16	0,31	0,16

Table 11. Focus points of EK.

From Table 11 we can see that the focus points of EK are related to private interests and economy. The first category is **business and entrepreneurship**. These concepts refer to businesses or entrepreneurs, entrepreneurship and small & medium businesses. The next category is **society & state**. This category refers to concepts like public, private, government and Finnish people. This category also includes concepts related to welfare and welfare society, regulation, internationality and industrial peace.

The next category is **economy**. In this category the important concepts refer to taxation, growth, debt, exports, effectiveness or investments. There are also many references to markets, competitiveness, competition and stimulation. Finally, EK refers to the **energy** category more than other actors.

As a summary, EK tends to focus on the private businesses and also entrepreneurship. They do make many references to the government. This is understandable as they are an interest group which tries to affect the government's policies. They also mention both deregulation and industrial peace. These concepts can be seen as their direct objectives of tripartite actions.

There have also been changes in the frequency of words used by EK. The usage of words which refer to businesses and entrepreneurship has decreased. Likewise, the use of words which refer to growth, wellbeing and society has decreased. On the other hand words which refer to government, Finnish people and regulation increased in usage. The next organization to be examined is SAK, below in Table 12

Focus points of SAK					Year			
	EK	AKAVA	STTK	SAK	2003	2007	2011	2015
Employment	1,44	3,52	4,12	4,45	4,53	4,28	5,35	3,49
Society & state	1,91	1,88	1,94	2,03	2,30	2,06	1,90	1,96
Trade union activity	0,25	0,92	0,88	1,15	1,32	1,26	1,00	1,01
Rights and justice	0,19	0,13	0,34	0,51	0,66	0,54	0,42	0,40

Table 12. Focus points of SAK

From Table 12 we can see that SAK's focus points are related to employment, society and state and trade union activity. The first focus point category of SAK manifestos is employment. This category includes concepts which refer to employees, working life, work, employment, unemployment and unemployed, labour markets, labour agreements and welfare.

The next category is society and state. This category includes concepts of Finland, government or officials, cooperation, services, responsibility and legislation. The third category dominated by SAK is trade union activities. These concepts refer to tripartite actors, employers, employees, trade unions and trade union activities, labour disputes and strikes. The next category which is used by SAK is rights and justice. These words refer to concepts like human, human rights, humanity, basic rights, social world and justice.

In summary, it can be said that SAK's focus area is employment and trade unions. SAK also mentions society and state often, as did EK. SAK's manifestos also mention human rights and justice a bit more than other employee organizations. The word usage in SAK's manifestos has remained quite stable over time. There is slight decrease in words which refer to employees and working life, as well as words which refer to human rights and basic rights. The next organization to be examined is Akava, below in Table 13.

Focus points of Akava					Year		
	EK	AKAVA	STTK	SAK	2003	2011	2015
Business & Entrepreneurship	0,09	0,24	0,02	0,02	0,37	0,10	0,30
Education / studying	0,99	2,64	1,13	0,54	2,52	2,85	2,50
Employment	0,16	0,93	0,51	0,34	0,33	1,66	0,62
Rights and justice	0,00	0,05	0,02	0,01	0,04	0,08	0,03
Trade union activity	0,01	0,14	0,03	0,04	0,11	0,28	0,03

Table 13. Focus points of Akava.

From Table 13 it can be seen that Akava's focus is in education, employment and also business and entrepreneurship. The first category which is examined is business and entrepreneurship. This category includes two concepts: Entrepreneurs and business support. The next category is education and studying. This category includes concepts like research, studying, students, student grant, higher education, research and development, academic, knowledge and product development. These concepts refer to higher education and university education. The next important category in Akava's manifestos is employment. This category has concepts which refer to personnel, working hours and wellbeing at work. From the category of rights and justice Akava's manifestos highlight only the concept of legal protection. In the category of trade union activity, Akava's manifestos highlight the concepts of cooperation and also legal cooperation obligation (yhteistoimintavelvoite).

As a summary, it can be seen that Akava's own focus is especially in higher education. This is of course to be expected, as Akava is an interest group of professionals and university level educated people. This can be also seen from their focus on working hours and workplace wellbeing. The next and last organization to be examined is STTK in Table 14.

Focus points of STTK							
	EK	AKAVA	STTK	SAK	2003	2011	2015
Education & research	0,00	0,02	0,03	0,00	0,00	0,08	0,00
Economy	0,05	0,01	0,09	0,02	0,00	0,06	0,13
Rights and justice	0,15	0,75	1,50	0,55	1,62	1,42	1,54
Employment	0,26	0,41	0,96	0,29	0,87	1,12	0,84

Table 14. Focus points of STTK.

STTK's focus area is in rights and in employment. The first category to is education and research. In this category STTK highlights the concept of scientists and researchers. In the category of economy STTK highlights the concept of purchasing power.

There are many focus points in STTKs manifestos in the rights and justice category. This category includes concepts like human rights, families, women, men, gender, aging and elderly, children and equality. The last category to be examined is employment. In this category STTK highlights concepts of social security, health and health services, purchasing power and economic restructuring.

It is important to understand that even though some of these organizations do have the same categories as their key points, they focus on different issues. For example, the category of economy is used by both EK and STTK. Within that category, EK refers to concepts of taxation, growth, debt, effectiveness,

competitiveness and competition. STTK refers to a different aspect of economy in their manifestos, namely the concept of purchasing power. Another example is the category of rights and justice. While SAK refers to concepts of rights, humanity and social world, Akava's manifestos highlight only the concept of legal protection and STTK mainly focusses on different genders, elderly and children. Next I will discuss the implications of these results.

5.3 Discussion of the results

In this chapter I will discuss the results of the analysis. I will first briefly examine the people focus of trade unions. Then I will shortly analyse the references towards technology. After that I will compare the results against Kantola's (2006) competition state vocabulary.

5.3.1 People focus

There is one notable difference between the employer organisation EK and the three employee organizations. That is the references to people. There are more references to certain people or groups of people in employee organizations manifestos. EK has more references to general concepts in their manifestos. I have listed these groups below using comparison numbers. The comparison numbers calculated by using the amount of references divided by the total words per that organization and multiplied by 1000. Table 15 lists the references to certain groups of people using comparison numbers. I have bolded the lowest values.

	Akava	EK	SAK	STTK
Entrepreneurs	2,12	0,73	0,20	0,08
Immigrants	0,67	0,07	0,49	0,47
Employee/worker	3,37	0,80	7,12	3,95
Unemployed	0,48	0,15	1,44	0,63

Table 15. References to people

From Table 15 we can see that in all categories one of the trade union confederacies has the highest number of references in their manifestos. In the categories of immigrants, employees or workers and unemployed, EK has lowest comparison number. This means that EK had the lowest count of mentions from these categories when compared to the total number of words in their manifestos during this whole time period. Only in category of entrepreneurs did EK have more references than SAK and STTK, but still significantly less than Akava. Below in Table 16 are the references to general concepts of similar categories.

	Akava	EK	SAK	STTK
Entrepreneurship	1,45	2,19	0,14	0,16
Entrepreneurship	0,10	0,95	0,03	0,08
Immigration	0,10	0,51	0,32	0,16
Citizens	0,10	0,44	0,03	0,08
Finnish people	0,96	5,03	2,44	2,92

Table 16. References to general concepts

In Table 16 we can see that EK has highest comparison numbers in each category. Akava's manifestos had most references towards entrepreneurs. EK's manifestos have most references towards the general concept of entrepreneurship and entrepreneuring. A similar effect can be seen in immigration. Employee organizations have more references to immigrants, but EK leads with references on immigration. Of course it is not hard rule that employee organizations have more references towards people. I have selected here two categories where EK has most references: citizens and Finnish people.

Some conclusions can be drawn from these findings. First of all, employee organizations and EK speak about different things in these categories. When trade unions have immigration in their manifestos, they are writing about for example rights of immigrants. In EK's manifesto the point of view may be the immigration as source of economic growth. This kind of comparison of categories can be used to examine the subtle differences between organizations in same policy issues. Second, based on these findings it is too early to definitely say that trade unions are more people oriented. Yet these findings do support this claim at least in these categories. This is also supported by the finding that all Akava, SAK and STTK had references to rights of people in their manifestos. These concepts were for example human rights and basic rights, both of them being personal rights. Also Akava's reference to wellbeing at work refers to personal wellbeing. Thirdly, it is interesting to see the categories of citizens and Finnish people as categories which are used mostly by EK. These groups seem to be exceptions when compared to other groups of people. This might be understood as a claim by EK that they are representing the interest of all citizens of Finland. This claim can be examined as an opposite of the groups which are mentioned trade unions manifestos. That is, when trade unions represent their members, EK tries to claim that they represent the interest of all citizens.

5.3.2 References to technology

There is also an interesting difference in references towards technologies and innovations. These references are towards digitalization, digital economy, cleantech, information networks and innovations. I have selected these categories as they are the most salient technologies which are mentioned in these manifestos. In Table 17 below are the comparison numbers listed per category. The comparison numbers

are calculated by using the amount of references divided by the total words per that organization and multiplied by 1000.

	Akava	EK	SAK	STTK
Digitalization	0,19	0,80	0,03	0,32
Digital / digital economy	0,19	1,31	0,06	0,32
Cleantech	0,00	0,44	0,06	0,08
Information networks, information safety	0,96	0,66	0,09	0,95
Innovations	2,51	2,41	0,66	1,66

Table 17. References to innovations and technologies (highest values bolded).

From the Table 17 we can see that EK and Akava have made most references to these categories. STTK also refers to these categories, but not as much as EK or Akava. These are in contrast to SAKs comparison numbers, which are the lowest in each category. This finding can be interpreted so that there is different attitude towards technology in SAK when compared to the three other organizations. This difference might be one factor which helps to explain the difference in time series of policy positions. The issues posed by these technologies divide the actors into two groups. The first group is the one which includes EK, STTK and Akava. The second group which consists of only SAK. It might be that in this case the references increase when there is more to benefit from that. That might mean that these trends are most beneficial for EK, then Akava's and STTK's members. Members of SAK unions have less to gain from technology. Of course confirming this hypothesis would need more evidence, which is beyond the scope of this thesis.

5.3.3 Comparison of results to competition state vocabulary

As described in chapter 3 Kantola has studied the Competition state in Finland and its vocabulary. She has described how new concepts of competition state emerged in language of Finnish companies. These concepts were for example restructuring / change, flexibility, national competitiveness, innovations and knowledge, stimulation and welfare state as opposite of competition state. Kantola discusses how these concepts have gained a dominant position in transformation of the welfare state (Kantola, 2006).

In this part I will review the results of my analysis using Kantola's (2006) theory of language of competition state. I will first present how organizations have used the concepts of the competition state vocabulary in their manifestos. Then I will briefly discuss its meaning. Table 17 below lists the word usage per concept. The comparison numbers are calculated by using the amount of references divided by the total words per that organization and multiplied by 100. Numbers lower than 1,00 are coloured in red, numbers between 1,00 and 1,50 are in yellow and numbers higher than 1,50 are in green.

Flexibility		Akava_2003.txt
	1	
		Akava_2011.txt
	10	
		Akava_2015.txt
	3	
		EK_2007.txt
	6	
		EK_2011.txt
	4	
		EK_2015.txt
	1	
		SAK_2003.txt
	10	
		SAK_2007.txt
	6	
		SAK_2011.txt
	12	
		SAK_2015.txt
		STTK_2003.txt
		STTK_2011.txt
		STTK_2015.txt

From Table 19 we can see that the use of these concepts has slightly increased, as the comparison numbers are higher in 2011 and 2015 than in 2003 and 2007. The use of flexibility, restructuring, knowledge / skills, innovations and stimulation has increased between the years 2003 and 2015.

From Tables 18 and 19 we can see that Kantola's (2006) concepts of the competition state are used and adapted by all organizations. As these concepts emerged from business, it is understandable that EK as employers' organization is using them more than the employee organizations. It is also interesting to see that both Akava and STTK use this vocabulary. This could be interpreted in a way that they understand the state in terms of a competition state. As SAK uses these concepts less than others, it might reflect that they try to challenge the competition state and its vocabulary. Of course as we can see from Table 18, the comparison number of SAK has been rising. It might be that also they are adapting to the "realities" of the competition state.

One way of understanding the change in employers' and employee organizations' policy positions is to understand it as a shift towards the competition state. That is, one way of understanding Figure 7 is to see it as describing the dimension of the competition state and the adaptation to its language. Below is Figure 7 and for comparison Figure 10 where the graph is drawn from comparison numbers of table 18 (in figure 10 the previous election year is used in case of 2007 manifestos for Akava and STTK).

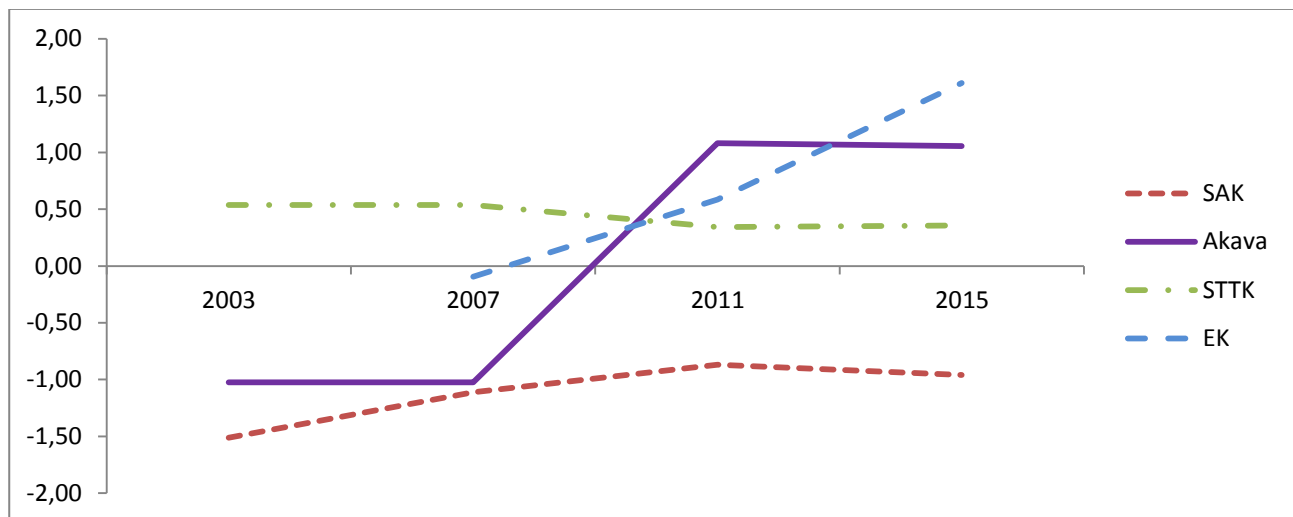


Figure 7. Policy positions and time.

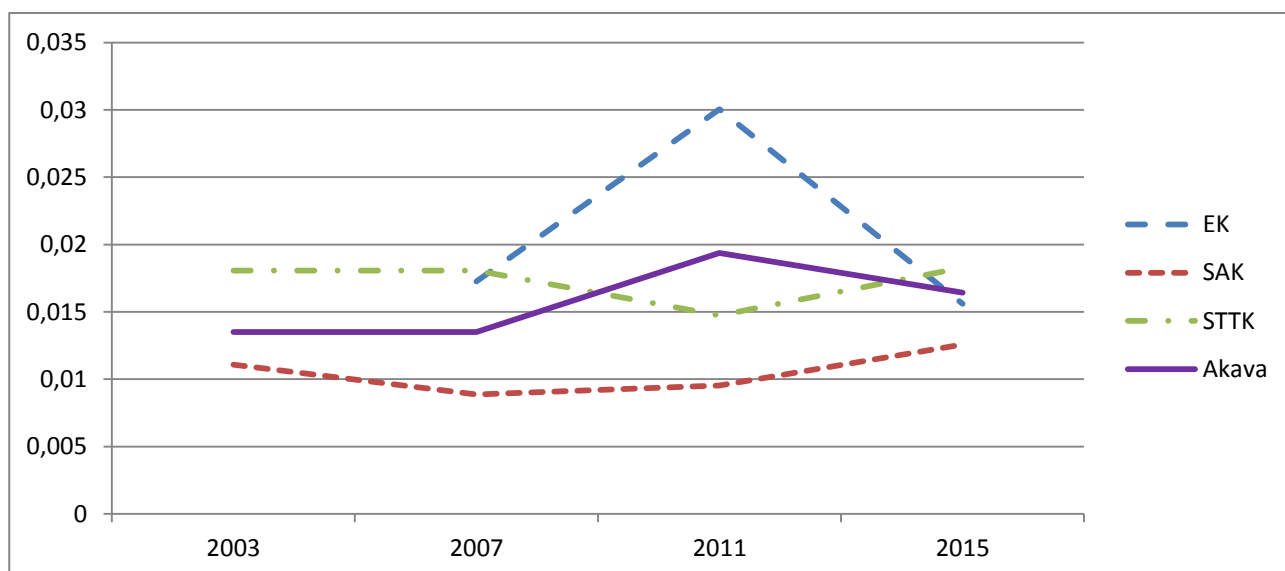


Figure 10. Comparison numbers of competition state concepts.

There are some similarities between Figure 10 and Figure 7. EK's and Akava's position have shifted to higher values between the years 2007 and 2011. EK's position had its highest comparison number in 2011. SAK's position is at the lower end of the picture, and there is also slight increase in SAK's position between the years 2007 and 2011. STTK's position slightly decreased between 2007 and 2011, but it has remained quite stable over time. From this comparison, it can be concluded that there are some similarities between the policy position changes and Kantola's vocabulary of the competition state.

There are also differences when comparing Figures 7 and 10. These differences are such as EK's and SAK's position between the years 2011 and 2015. Their policy positions in year 2015 in are quite different according to Figure 7, but their comparison numbers of competition state concepts are fairly close in Figure 10. This can be interpreted so that Kantola's competition state vocabulary only partly explains changes in policy position, as seen in Figure 7. This can be approached from another perspective. Below is Table 20, which lists the average weights of each competition state concept.

Concept	Weight
Flexibility	0,668
Restructuring / change	0,443
Competitiveness	0,833
Knowledge / skills	1,289
Innovations	1,684
Stimulation	1,596
Welfare state / society	1,087

Table 20. Average weights of competition state concepts.

From these average weights in Table 20 we can see that all of the concepts have medium-high weightings. Now below is again table 8, which had the high and low categories of employers and employees organizations policy positions.

Categories	Words	2003	2007	2011	2015	Weight	EK	AKAVA	STTK	SAK
Entrepreneurship and business	387	47	115	119	106	1,69	193	93	31	70
Technology	159	24	29	38	68	1,59	51	27	42	39
Government budget	284	23	54	112	95	1,40	91	41	61	91
Globalization and internationality	192	29	37	83	43	1,40	64	30	29	69
Research & education	439	72	53	184	130	1,39	101	154	86	98

The category of entrepreneurship is largely omitted in Kantola's competition state vocabulary, but it is present in employers' and employee organizations' manifestos and has high weightings. The category of entrepreneurship includes concepts of entrepreneuring, business-based and entrepreneurship. This might signify that the entrepreneurship is also part of the competition state vocabulary, even though it is not included in Kantola's study.

The category of trade unions and union activity is not linked to the competition state vocabulary. A similar category is the category of human rights and society. There are concepts of equality, ethics, responsibility to society and people. According to Kantola, economy and economic growth is central to the competition state vocabulary. Then the concepts like equality and social responsibility can be seen as an attempt to challenge them. It is also interesting to see that both the European Union and Europe have low weightings.

It can be said that Kantola's (2006) concepts of the competition state can partly explain the policy position change of the employers' and employee organizations. There has been change where the language of the competition state became more used by all of these organizations. EK, Akava and STTK have adapted to it, but SAK is still partly challenging it. Moreover, the concepts of the competition state have also slightly changed. Especially the concept of entrepreneurship might be a new concept of the competition state. In this study I have only examined these issues with rough word counts. Qualitative analysis would be needed to approach these subjects to find out the exact changes and positions.

Slapin & Proksch (2008) argue that their method will align the texts in only one dimension, which is the most salient. As we have seen, in these texts the most salient dimension can be partly explained by using Kantola's competition state vocabulary. This means that the shift which we have seen in Figure 7 can be partly be explained by the adaption to the competition state vocabulary. This implies that this shift can also be understood according to Cerny's and Evans' competition state theory (1999). According to their theory it is a shift where domestic political actors take proactive and pre-emptive lead in the competition state process. In this process the state is aligned towards competition within global economy. If the data in Figure 7 is understood as a representation of how these actors have aligned themselves to the global competition, we can see two things. First of all, in the year 2015 EK, Akava and STTK are all quite close to each other, while SAK is in the other end of the scale. This can be interpreted in a way that EK, Akava and STTK (though only moderately when comparing to EK and Akava) have aligned themselves towards the global economy. SAK in the other hand is still resisting this alignment. The divide in references to technology also supports this claim. The second observation from Figure 7 is that EK and Akava have completed the most drastic shift towards competitiveness in global economy. According to the competition state theory, these actions align the state towards global competition, but at the same time they hollow the

state out. This then leads to both loss of states interventionist role and much of its reason to exist. Prioritizing the promotion of international competitiveness, the state loses its capacity to act over time (Cerny and Evans, 1999).

These results are also interesting from the perspective of the results which do not fit with Kantola's (2006) competition state vocabulary. The omitted categories which were frequently used by EK and Akava might be something that could supplement Kantola's vocabulary. The categories which were used by SAK could then be used to construct for example an opposite for the competition state vocabulary. These concepts might be the alternative rearticulation which challenges the competition state vocabulary. In the next chapter I will give a summary of the whole thesis. I will also return to these results and continue to discuss them.

The empirical analysis of Horsfall (2011) and his four different variants of the competition state can be used to further analyse the results. We can see that all actors, except STTK, have aligned themselves more towards global economy. This supports Horsfalls claim that all countries have drifted towards the competition state. The interesting part here is the difference between EK and Akava, when compared to SAK. All of these actors have aligned towards global economy. Still there is significant gap in their policy positions. It may mean that they are representing different variants of the competition state. To examine this, an extended study of the positions of these actors is needed. Next I will review the targets and the approach which I had in my thesis. I will also discuss the results their meaning.

6 Conclusions

In the Finnish neo-corporatist system, the labour and partly the social policies are negotiated in tripartite negotiations. Actors in these negotiations are the government, employers' organizations and employee organizations. This is why both employers' and employee organizations are important actors when deciding on labour, social or economic policies in Finland. I choose the most important employer and employee organizations for my study. These were from employee side the Central Organisation of Finnish Trade Unions (SAK); the Finnish Confederation of Salaried Employees (STTK) and the Confederations of Unions for Academic Professionals in Finland (AKAVA). The main employers' organization was The Confederation of Finnish Industries (EK). It is the leading business organisation in the private sector representing both industry and services. In this thesis I have explored how the policy positions of these organizations have changed in last 15 years. Between early 2000 and 2015, there have been significant changes in Finnish economy. These changes were the shift towards service economy, the finance- and euro crisis and the proliferation in usage of technology.

The theoretical background in my thesis was the Competition state theory by Cerny (1990). According to this theory, state actors respond to globalization and market pressures by promoting competitiveness. At the same time, the state loses some of its functions and becomes "hollowed-out", when it focuses on promoting the enterprises. As Cerny & Evans (1999) wrote, state actors will try to align state functions to international economy. Horsfall (2011) developed Cerny's & Evans' theory even further with empirical analysis. Kantola (2006) has studied the Competition state in the Finnish context, and created a vocabulary of the Competition State in Finland.

My approach to this topic was a quantitative analysis of language used by these organizations. The research questions in my thesis were as follows:

- x How has the policy position of these four neo-corporatist actors changed between the years 2003 and 2015, based on their manifestos? Sub-questions of this question are:
 - o Which words and concepts define the different extremes in the policy area where these actors positioned themselves?
 - o What is the position of each actor and how has it changed between 2003 and 2015, for which words and concepts has the usage increased and for which has it decreased?
 - o What is the focus area of each actor, based on the language in their manifestos?
 - o Is the competition state vocabulary by Kantola (2006) adapted by these actors and to what extent?

- x Does “Wordfish” produce plausible results when used on Finnish texts? Do these results correlate with other policy position studies on the same texts?

There have been four parliamentary elections in Finland during that period, in the years 2003, 2007, 2011 and 2015. Each of these organizations has prepared a manifesto for each election. In these manifestos the organizations have outlined their targets for the new government. Lucas et al. (2015) write in their paper that automated content analysis and comparative politics are well suited for each other. I have used a method by Slapin & Proksch (2008) to analyse policy positions in these manifestos. I prepared the manifestos of employer and employee organizations and used Wordfish to analyse them. This resulted in weighted values for each manifesto, which placed these manifestos in one dimension on a scale. From these values I created a time series picture, which shows the policy positions and their change between the years 2003 and 2015.

An important question is what this dimension calculated by Wordfish means? EK’s position is around 1,5 in year 2015, and SAKs position is around -1. What do these numbers mean in terms of the language used in the manifestos? I analysed the frequency of the words and their weightings. As a result the words and manifestos, which had high weightings, used more concepts like entrepreneurship, businesses, technology, research and education. These corresponded especially well with manifestos from EK and Akava. Low weightings had concepts like trade unions and union activity, employment, European Union and human rights. These categories were associated with especially SAK.

I also added a term document matrix and the Wordfish output per word to supplement the results. The term document matrix shows how many times each term is used in each manifesto, and the Wordfish output per word gives weighting to each word. Combining these documents, I compared the word usage between 2003 and 2015. It can be said that there have been couple of trends ongoing. The references to technology, skills and knowhow were increasing. References related to employment, where certain aspects of it are increasing and others decreasing. Also the references to trade union activity, society and justice were decreasing. Each of these organizations also had slightly different focus in their manifestos. EK’s key points tended to focus on the private businesses and also entrepreneurship. SAK’s focus area was employment and trade unions. The focus area of Akava was mainly higher education and STTK’s focus area was especially in genders, families and aging people. It was particularly noticeable that EK emphasized mainly just concepts, like entrepreneurship, while the employee organizations emphasized both concepts and the people, for example entrepreneurs.

I also analysed the references in relation to the competition state vocabulary presented by Kantola (2006). Each of the organizations had used these concepts in their manifestos. There has been a change insofar that language of the competition state is becoming more used by all of these organizations. EK, Akava and STTK have already adapted to it, but SAK is still partly challenging it. These concepts divided these actors into three groups. EK used these concepts the most. The next group was STTK and Akava and the last SAK. Figure 7 can be partly understood using this vocabulary. The dimension is an adaption to the vocabulary of the competition state. Also the concepts of the competition state have slightly changed. Especially the concept of entrepreneurship was something which was not mentioned by Kantola. This result can be interpreted in a way that EK, Akava and STTK represent the actors in economy which are posed to gain in the process of turning welfare state to competition state and globalization. For these actors it is valuable to adapt the competition state vocabulary. The unions of SAK and their members, on the other hand, are in an unfortunate position where they have little to gain from globalization and the competition state. I do not intend to claim on the basis of these findings that there has been a shift in Finnish society towards the competition state. Even though these findings are from important actors, they are just rough categorizations of the change. To conduct a more detailed examination of the change in discourse, the manifestos should be analysed utilizing other techniques. Even though this approach, which was selected for this study, did find interesting changes and differences between manifestos, I'm sure that some of the fine details were missed.

The approach which I have taken in this thesis also has some limitations. The computerized approach does analyse the documents fast, but much more time is needed for the pre-processing. The documents need to be cleaned so that they are ready for the software. After the results were calculated, the choice of manual lemmatization meant that a lot of time was needed to do the analysis. Also, as the analysis is done manually, it is possible that some trends go unnoticed and there is a possibility of human error. The positive side of this was that during this manual lemmatization process, I gained a number of insights from the data as I needed to study them closely. Wordfish as an analysis method also omitted some fine details. This was true especially when the meaning was not dependant on one word, but a combination of two or more words. That is one limitation of this method, as described in its bag-of-words approach. I see that the Wordfish approach is most valuable when the results can uncover interesting categories and trends. These can then be examined in detail using other methods. Moreover, the computerized approach means that when the pre-preparation is done (which also could be automated), Wordfish can be used to analyse huge amounts of material. The manifestos which were used in this study amounted to around 70 000 words. It is a large amount, but still such that it could be analysed using "traditional" methods. If the data which needs to be analysed would include over 500 000 or one million words, Wordfish could be especially valuable. This amount of data would be unfeasible to analyse by hand.

These points also help if there would be further research points from this topic. The changes in these manifestos could be analysed even more for example using the discourse theory. The results of this study could serve as a starting point for that. Another possibility would be to include more data in this analysis. This could for example involve other documents from these actors. It would be also possible to include data from smaller employer organizations, from entrepreneur organizations, from member unions or from government or parties. The only limitation in this context is that this data should deal with labour and social policies. For example the foreign relations part from the government's programmes should be excluded from the analysis. One possibility would be also to include manifestos from the 1990s, but then the change of word meanings could make results inaccurate. From a theoretical point of view, Kantola's competition state vocabulary should be compared to the empirical analysis of Horsfall (2011). As Horsfall claims that there are different variants of the competition state, using Kantola's vocabulary might make it possible to recognize the differences between vocabularies of these variants. The results could be examined using theories of innovation cycles and Kondratieff waves. It would be also interesting to use the competition state theory from a security policy point of view. The competition state process challenges especially less educated non-service sector employees. Thus the competition state theory might partly explain the rise of populist right wing parties and extreme right wing groups across the Europe. In this approach there is also the interesting possibility to examine the competition state process through gender. This process has a different effect on men and women. The Competition state process threatens especially the industrial workplaces, which are dominated by men. The restructuring and subsequent unemployment for these workers might lead to radicalization to far right wing groups or other extremist groups.

From the policy-makers point of view, these results probably cannot be directly transformed to policies. Nevertheless, there is still something to learn from here. First of all, it is important to understand that the competition state is one way to respond to the challenges of more open and globalized world. The Competition state is one but not the only way, and not necessarily the best. Cerny & Evans (1999) write in their article that the competition state process will "hollow out" the state. The second important point also comes from the Competition state theory. Cerny & Evans write that the process of transformation from the welfare state to the competition state challenges the state institutions to embody the kind of communal solidarity. This solidarity gives the modern nation state its legitimacy, institutional power and social embeddedness. This then further undermines the social and political capacity of the state to resist globalization. In other words, policies which foster the national competitiveness but fail to take communal solidarity into account can actually make the state more susceptible to globalization and undermine a state's institutional power. Horsfalls variants of the competition state offer some options. There is a possibility of the competition state model where alignment towards global economy does not necessarily mean that the social spending of the state needs to be cut down. In other words, it might be possible to

create a model of the competition state which combines competitiveness and upholds the communal solidarity. This would allow the state to be competitive while keeping the political and social capacity of the state. It also means that if the strong neoliberal variant of the competition state is adapted, it is a political choice, not a deterministic necessity. In the case of Finland this is of course bit more complex, as Finland is part of European Union.

The findings of this study show that there was a division in the adaption to the competition state vocabulary. EK was most adapted, STTK and Akava had mid-range results and SAK was somewhat resisting. This can be interpreted in a way that there is an already ongoing process where the communal solidarity is crumbling. This is especially true because in Figure 7 we can see that the policy position distance between Akava and EK and SAK has increased. The policy position distance of these actors also influences the relations between Akava, STTK and SAK. As the distance between Akava and SAK is greater than that between Akava and EK, it might be hard to find a consensus among trade unions. This has been visible during spring of 2016, when the new government of Finland tried to change labour and employment policies. These negotiations have been especially hard for some member unions of SAK. Their policies have been far from the positions of other trade union confederacies, employers and the government. Another example is the proposed merging of STTK and SAK. The policy position distance might mean that this merging project will encounter some difficulties. The partners might find some issues where they cannot agree to a common position. In the end, the growing distance between these interest groups policy positions might endanger the whole existence of Finnish neo-corporate institution.

Maybe as a summary I can agree with Lucas et al. (2015), who wrote in their article that the automated content analysis is a good tool in comparative political science as it can analyse large amounts of content. While this thesis has shown that this approach is just rough tool, it can still point the scholars towards interesting categories and concepts which then can be analysed further using different approaches. It can be especially adapted to analyse slow but significant trends like for example the competition state.

7 References

- Akava, 2016. Menestystä ja turvaa yhdessä [online] Available at: <<http://www.akava.fi/akava>> [Accessed 20.3.2016]
- Cerny, P. G., 1990. The Changing Architecture of Politics: Structure, Agency, and the Future of the State London: Sage.
- Cerny, P.G. and Evans, M., 1999. New Labor, Globalization, and the Competition State [online] Available at: <https://ces.fas.harvard.edu/files/working_papers/CES_WP70.pdf> [Accessed 19.3.2016].
- Cerny, P. G., 2010. Rethinking World Politics: A Theory of Transnational Neopluralism New York: Oxford University Press.
- Dobbs, R., Manyika, J. and Woetzel, J. 2015. The four global forces breaking all the trends [online] Available at: <<http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-four-global-forces-breaking-all-the-trends>> [Accessed 20.3.2016]
- Elinkeinoelämän keskusliitto, 2016. Mikä on EK? [online] Available at: <<http://ek.fi/ek-ja-jasenliitot/>> [Accessed 20.3.2016]
- Hague, R. and Harrop, M., 2010., Comparative government and politics: An introduction 3rd ed. Basingstoke: Palgrave Macmillan.
- Honkatukia, J., Tamminen, S. and Ahokas, J. 2014. VATT POLICY BRIEF 2014: Suomi on jo palvelutaloudessa [online] Available at: <http://www.vatt.fi/file/policybrief/vatt_policybrief_12014.pdf> [Accessed 20.3.2016]
- Horsfall, D., G., 2011. From competition state to competition states? An empirical exploration [online] Available: <http://etheses.whiterose.ac.uk/1607/1/From_competition_state_to_competition_states__an_empirical_exploration_Horsfall_D_G.pdf> [Accessed 22.4.2016]

ILO. Finland: Industrial relations profile[online] Available at:

<http://www.ilo.org/dyn/travail/docs/2431/EIRO%20Finland.pdf> [Accessed 20.3.2016]

Jokivuori, P., 2014. Finland: Industrial relations profile. [online] Available at:

<http://www.eurofound.europa.eu/observatories/eurwork/comparative-information/national-contributions/finland/finland-industrial-relations-profile> [Accessed 06.01.2016]

Kananen, J. and Kantola, A. 2009. Kilpailukyky ja tuottavuus: kuinka uudet käsitteet saavuttivat hallitsevan aseman hyvinvointivaltion muutoksessa? In: Kananen, J. and Saari J. eds., 2009. Ajatuksen voima: ideat hyvinvointivaltion uudistamisesta. Jyväskylä: Minerva. pp.119-151.

Kantola, A., 2006. Suomea trimmaamassa: suomalaisen kilpailuvaltion sanastot. In: Heiskala, R. and Luhtakallio, E. eds., 2006. Uusi jako: Miten Suomesta tuli kilpailukykyteiskunta? Helsinki: Gaudeamus. pp. 156-178.

Kansallinen Kokoomus, 2007. Vastuullinen Markkinatalous ja sen vaikutukset Suomen tulevaisuuteen. [online] Available at:

<http://web.archive.org/web/20070313191108/www.suomentoivo.fi/main.site?action=siteupdate/view&id=3> [Accessed 20.3.2016]

Kajanoja, L., 2012. Suomen vaihtotaseen heikentyminen. Suomen Pankki Rahapolitiikan tutkimusosasto [online] Available at: <http://www.suomenpankki.fi/pdf/170892.pdf> [Accessed 20.3.2016]

Kettunen, K., 2009. Reductive and Generative Approaches to management of morphological variation of keywords in monolingual information Retrieval - an overview. Journal of Documentation, 64(3), pp.267-290.

Kettunen, K. and Baskaya, F., 2011. Stemming Finnish for Information Retrieval Comparison of an Old and a New Rule-based Stemmer. In: 5th Language & Technology Conference: Human Language Technologies as a Challenge for Computer Science and Linguistics, Poznań, Poland, 25-27 November 2011.

Kuismanen, M. and Spolander, M. 2012. Kansantaloudellinen aikakauskatsaus t 108. vsk.t 1 / 2012: Finanssikriisi ja finanssipolitiikka Suomessa. [online] Available at:

<http://www.taloustieteellinenyhdistys.fi/images/stories/kak/KAK12012/kak12012kuismanen.pdf> [Accessed 20.3.2016]

König, T., Luig, B., Proksch, S-O., and Slapin, J.B., 2010. Measuring Policy Positions of Veto Players in Parliamentary Democracies. *Reform Processes and Policy Change*, 2011 69-95.

Laver, M., Benoit, K., and Garry, J., 2003. Extracting Policy Positions from Political Texts Using Words as Data. *The American Political Science Review* 97(2) 311–331.

Lo, J., Proksch, S-O and Slapin, J., B., 2014. Ideological Clarity in Multi-Party Competition: A New Measure and Test Using Election Manifestos. *British Journal of Political Science* [online] Available at: <<http://q-aps.princeton.edu/files/jameslo.pdf>>

Lowndes, R. and Roberts, M., 2013. Why institutions matter The New Institutionalism in Political Science. Basingstoke: Palgrave Macmillan.

Lucas, C., Nielsen, R., Roberts, M., Stewart, B., Storer, A., and Tingley, D., 2015. Computer assisted text analysis for comparative politics. *Political Analysis* 23(2) p.254-277.

Magone, J., 2011. Contemporary European politics: A comparative introduction. Milton Park, Abingdon, Oxon: Routledge.

Ministry of Employment and Economy, 2015. Teollisuudessa palkansaajien järjestäytymisaste suurin [online] Available at:

<https://www.tem.fi/ajankohtaista/tiedotteet/tiedotearkisto/vuosi_2015?119950_m=118512> [Accessed 20.3.2016]

Paloheimo, H. 2008. Ideologiat ja ristiriitailottuvuudet. In: Paloheimo, H. and Raunio, T. eds.. 2008. Suomen puolueet ja puoluejärjestelmä. Helsinki: WSOY Oppimateriaalit Oy. pp.27-58.

Rikama, S. and Salmi, H. 2010. Miten Suomi selviää? [online] Available at:

<http://www.stat.fi/artikkelit/2010/art_2010-09-07_003.html?s=0#1> [Accessed 23.3.2016]

Slapin, J.B., and Proksch S-O., 2008. A Scaling Model for Estimating Time-Series Party Positions from Texts. *American Journal of Political Science* 52(3) 705-722.

Slapin, J.B and Proksch, S-O. 2009a. Wordfish t Manual [online] Available at:

<http://www.wordfish.org/uploads/1/2/9/8/12985397/wordfish_manual.pdf> [Accessed 20.3.2016]

Slapin, J.B and Proksch, S-O. 2009b. WORDFISH: Scaling Software for Estimating Political Positions from Texts. Version 1.3. 15 January 2009.[online] Available at: <<http://www.wordfish.org/software.html>> [Accessed 23.3.2016]

Slapin, J., B., and Proksch S-O., 2010. Position Taking in European Parliament Speeches, *British Journal of Political Science* 40(3)pp.587-611.

Slapin, J.B., Proksch, S-O., and Michael Thies., 2011. Party System Dynamics in Post-War Japan: A Quantitative Content Analysis of Electoral Pledge. *Electoral Studies* 30(1)pp.114-124.

Soininvaara, O., 2015. Jäähvyäiset Eduskunnalle. Helsinki: Kustannusosakeyhtiö Teos.

Sundberg, J. 2008. Puolueiden organisaatiot ja suhteet etujärjestöihin. In: Paloheimo, H. and Raunio, T. eds.. 2008. Suomen puolueet ja puoluejärjestelmä. Helsinki: WSOY Oppimateriaalit Oy. pp. 61-83.

Suomen Sosiaalidemokraattinen Puolue, 2006. Reilu Suomi työtä ja välittämistä- Vaaliohjelma[online] Available at: <http://web.archive.org/web/20070322202323/www.sdp.fi/fi/vaalit_2007/vaalitavoitteemme> [Accessed 20.3.2016]

SAK, 2016. Jäsenmäärät SAK:laisten liittojen jäsenmäärät 1.1.2016[online] Available at: <<https://www.sak.fi/tama-on-sak/ammattiliitot/jasenmaarat>> [Accessed 20.3.2016]

STTK, 2016. Mikä STTK[online] Available at: <<http://www.sttk.fi/mika-sttk/>> [Accessed 20.3.2016]

SVT (Suomen virallinen tilasto), 2016. 070. Employed persons and employees aged 15 by employer sector and industry (DL 2008)[PX-Web Statfin in English >> Labour Market >> Labour force survey] Available through PX-Web Statfin <<http://pxnet2.stat.fi/PXWeb/pxweb/fi/StatFin/>> [Accessed 23.3.2016]

The Economist, 2012. Northern Gripest The Finns are being handed because they face their own hardship.[online] Available at: <<http://www.economist.com/node/21560865>> [Accessed 20.3.2016]

The Guardian, 2009. Videogames now outperform Hollywood movies [online] Available at:
<<http://www.theguardian.com/technology/gamesblog/2009/sep/27/videogames-hollywood>> [Accessed 20.3.2016]

The Manifesto Project, 2016. MARPOR Data Dashboard :: Single Country Finland, 2007, Right-Left position, Ecological parties, Social democratic parties, Conservative parties, Socialist parties] Available at:
<https://visuals.manifesto-project.wzb.eu/mpdb-shiny/cmp_dashboard/> [Accessed 23.3.2016]

Tulli, 2015. Kuvioita Suomen ulkomaankaupasta 2014 [online] Available at:
<http://www.tulli.fi/fi/suomen_tulli/ulkomaankauppatilastot/grafiikkaa/liitteet/Kuviot_2014FI.pdf>, p. 14.
[Accessed 23.3.2016]

Työ- ja Elinkeinoministeriö, 2012. Finnish Labour Legislation and Industrial Relations [online] Available at:
<http://www.expats-finland.com/pdf/finnish_labour_legislation.pdf> [Accessed 20.3.2016]

Vasemmistoliitto, 2007. Eduskuntavaaliohjelma 2007 [online] Available at:
<<http://www.fsd.uta.fi/pohtiva/ohjelmat/VAS/vasvaali2006>> [Accessed 20.3.2016]

Vihreä liitto, 2006. Vihreys on rohkeutta, vastuullisuutta ja oikeudenmukaisuutta Eduskuntavaaliohjelma 2007. [online] Available at: <<http://web.archive.org/web/20070208113429/www.vihreat.fi/node/604>>
[Accessed 20.3.2016]

Wiberg, M., 2006. Poliittika Suomessa. Porvoo: WSOY.

8 Appendixes

8.1 Appendix 1. Word weightings

8.1.1 Positive weightings

welfare services	
hyvinvointipalvelut	2,18
hyvinvointipalvelujen	1,69
hyvinvointipalveluille	2,59
hyvinvointipalveluihin	1,31
Average:	1,94
Welfare state	
hyvinvointivaltion	2,45
hyvinvointivaltiomme	0,11
hyvinvointivaltio	3,14
Average:	1,90
Poverty	
köyhyyttä	0,68
köyhyyteen	2,59
köyhyys	2,14
köyhyydessä	2,59
köyhyyden	1,30
Average:	1,86
Equality	
tasaarvosta	0,11
tasaarvon	3,69
tasaarvolain	2,49
tasaarvoisia	2,59
tasaarvoisempaa	0,68
tasaarvoinen	1,41
tasaarvoa	0,95
tasaarvo	-0,47
Average:	1,43
Welfare society	
hyvinvointiyhteiskuntana	0,68
hyvinvointiyhteiskuntamme	0,68
hyvinvointiyhteiskuntaan	0,68
hyvinvointiyhteiskunta	0,75
hyvinvointiyhteiskunnan	0,75
Average:	0,71

8.1.2 Negative weightings

Market economy	
markkinataloutta	-3,18
markkinatalous	-2,95
markkinataloudessa	-2,95
markkinatalouteen	-1,89
markkinataloudesta	-1,89
markkinatalouden	-0,47
Average:	-2,22
Enterprise	
yrittystään	-1,89
yrittysiin	-1,89
yrityksestä”	-1,89
yrityksessään	-1,89
yrityksessä	-1,89
yritykseltä	-1,89
yritykselleen”	-1,89
yritykselle	-1,89
Average:	-1,89
Tax deductability	
verovähennystä	-1,89
verovähennysoikeus	-1,89
verovähennyskelpoisia	-1,89
verovähennyksen	-1,89
Average:	-1,89
Entrepreneur	
yrittäjänä	-1,89
yrittäjän	-2,95
yrittäjä	-2,34
yrittäjyyttä	2,59
yrittäjyys	2,59
yrittäjyyden	-0,28
yrittäjiä	-0,33
yrittäjien	0,25
Average:	-0,29

8.2 Appendix 2. Stop words

Link below

<http://svn.tartarus.org/snowball/trunk/website/algorithms/finnish/stop.txt?revision=543&view=markup>

8.3 Appendix 3. R language program for automatic pre -preparation of texts

This code was used to conduct the automatic pre-preparation of texts in this thesis. The program is based on Slapin & Proksch (2008) code, but it has been updated by me to correspond to new version of TM package. I have also added call to stemming function and the printout for term document matrix.

```
# DEFINE DIRECTORY THAT CONTAIN UTF-8 TEXT DOCUMENTS HERE
directory<-"d:\\thesisdata\\matrix\\"

# LOAD TEXT DOC COLLECTION (Here: fi)
textcorpus<-Corpus(DirSource(directory),readerControl = list(reader=readPlain,language = "fi", load =
FALSE))

# EXTRACT FILE NAMES
docnames<-list.files(directory)

for (i in 1:length(textcorpus)){ meta(textcorpus[[i]], tag = "author") <-docnames[i] }

# PRINT SUMMARY OF DOC COLLECTION
summary(textcorpus)

# GENERATE TERM-DOCUMENT MATRIX
text.corpus.format<-textcorpus
text.corpus.format<-tm_map(text.corpus.format,content_transformer(tolower)) # MAKES EVERYTHING
LOWERCASE
text.corpus.format<-tm_map(text.corpus.format,removeNumbers) # REMOVE NUMBERS
text.corpus.format<-tm_map(text.corpus.format,stripWhitespace) # REMOVE EXTRA WHITE SPACE
text.corpus.format<-tm_map(text.corpus.format,content_transformer(removePunctuation))
text.corpus.format<-tm_map(text.corpus.format,removeWords,stopwords("finnish")) )
```



```

# Stemming, commented out
#text.corpus.format<-tm_map(text.corpus.format,stemDocument, language = "fi")

wordfreqmatrix <-TermDocumentMatrix(text.corpus.format)

dim(wordfreqmatrix)
wordfreq<-as.matrix(wordfreqmatrix) # CONVERT WORD COUNT MATRIX FOR USE WITH WORDFISH

# This part prints out excel table of word frequency matrix
write.table(wordfreq, file = "words_analysis.csv", sep = ",", col.names = NA, qmethod = "double")

# RUN WORDFISH
example.B<-wordfish(wordfreq,dir=c(1,3))

# Print out some quantities of interest
example.B$documents
example.B$words

```

8.4 Appendix 4. Concepts and categories with high, medium and low weightings

Here are the concepts which have high, medium and low weightings and the categorisation (in Finnish). In the picture on the left is the concept name. In column "freq" is the average weighting of the words which refer to that concept. In columns 2003, 2007, 2011 and 2015 is how many that concept has been mentioned in those years. In columns EK, AKAVA, STTK or SAK is how many times that organization has used that category in their manifestos. In last column is the category for that concept.

8.4.1 Concepts with high weightings

	Freq	2003	2007	2011	2015	EK	AKA	STTK	SAK	Kategoria
Tietoverkot	3,041	0	0	0	3	1	2	0	0	Teknologia
Yritystuet	2,677	0	0	0	8	3	3	1	1	Yritykset & yrittäminen
Yksityishenkilöt	2,638	0	1	2	3	3	3	0	0	Yritykset & yrittäminen
Digitalisaatio	2,427	0	1	3	14	11	2	4	1	Teknologia
Yritysmallma/-lähtöinen	2,412	0	0	4	1	5	0	0	0	Yritykset & yrittäminen
Eurot	2,180	2	3	7	23	17	2	4	12	Talous
Tietojärjestelmät/-liikenne	2,173	3	0	7	4	5	5	4	0	Teknologia
Yrittäminen	2,051	1	4	7	2	13	1	0	0	Yritykset & yrittäminen
Elinkeinotoiminta	2,034	1	1	6	0	5	1	2	0	Yritykset & yrittäminen
Työperusteinen	2,002	0	0	2	4	4	0	0	2	Maahanmuutto
Vaikuttavuus	1,999	4	10	25	28	20	14	15	18	Hallinto & Valtio
Kestävyyssvaje	1,960	0	0	11	4	6	2	6	1	Valtion budjetti
Yritystoiminta	1,896	3	7	5	7	14	1	3	4	Yritykset & yrittäminen
Korkeakoulut	1,894	9	7	56	40	16	65	22	9	Koulutus & tutkimus
Säätää/säätely	1,887	3	4	8	9	9	5	1	9	Hallinto & Valtio
Eläkejärjestelmä	1,831	0	2	7	5	1	6	4	3	Työllisyys
Epätasa-arvo	1,756	0	1	3	1	0	3	1	1	Oikeudet & eettisyys
Kilpailu	1,749	4	29	20	19	43	8	4	17	Yritykset & yrittäminen
Päällekkäisyys	1,745	2	3	4	3	5	2	4	1	Hallinto & Valtio
Kansainvälistyminen	1,732	3	8	14	15	21	8	2	9	Kansainvälisyys
Innovaatiot	1,728	5	11	44	32	30	23	18	21	Koulutus & tutkimus
Tutkimus	1,701	26	22	36	31	33	39	17	26	Koulutus & tutkimus
Teknologia	1,691	6	7	12	11	10	5	11	10	Teknologia
Laatu	1,642	8	10	31	15	14	19	13	18	Hallinto & Valtio
Tasapainottaminen	1,583	0	2	6	5	3	4	4	2	Valtion budjetti
Kustannustehokkuus	1,554	0	6	11	10	9	5	5	8	Valtion budjetti
Velkaantuminen	1,523	0	3	10	9	13	1	4	4	Valtion budjetti
Tekninen/tekniikka	1,515	2	6	5	4	2	4	5	6	Teknologia
Johtaminen/johtajuus	1,500	0	5	9	7	8	5	3	5	Yritykset & yrittäminen
Yrittäjyys	1,453	3	20	20	9	30	15	2	5	Yritykset & yrittäminen
Tiedot	1,451	5	5	17	10	10	5	11	11	Koulutus & tutkimus
Tulevaisuus	1,427	5	9	27	24	16	8	19	22	Talous
Kilpailijamaat	1,388	0	6	6	7	11	1	2	5	Talous
Sähköinen	1,380	1	4	3	6	8	0	2	4	Teknologia
Leikkaaminen	1,313	4	3	10	10	7	4	4	12	Valtion budjetti
Teknologia-	1,285	1	1	2	3	2	2	1	2	Teknologia
Ohjaus	1,236	8	2	20	14	5	14	3	22	Hallinto & Valtio
Päätöksenteko	1,228	4	4	8	6	3	5	7	7	Hallinto & Valtio
Elinkeinoelämä	1,190	7	9	13	13	21	10	7	4	Yritykset & yrittäminen
Sektorit	1,152	18	34	46	55	52	32	32	37	Hallinto & Valtio
Maahanmuutto	1,112	3	4	8	6	7	1	2	11	Maahanmuutto
tehostaminen	1,096	10	18	26	12	15	14	7	30	Hallinto & Valtio
Kansainvälisyys	1,064	26	29	69	28	43	22	27	60	Kansainvälisyys
Säädellä/säätää	1,060	2	5	16	15	1	22	0	15	Hallinto & Valtio
Verotus	1,057	15	33	51	45	49	19	24	52	Valtion budjetti

8.4.2 Concepts with medium weightings

	Freq	2003	2007	2011	2015	EK	AKAV	STTK	SAK	Kategoria
Opiskelijat	0,968	14	4	15	8	7	15	7	12	Koulutus & tutkimus
Taloukasvu	0,909	14	7	25	14	22	7	8	23	Talous
Tietotekniikka	0,874	4	0	3	5	0	2	7	3	Teknologia
Yrittäjät	0,861	10	11	8	10	10	22	1	6	Yritykset & yrittäminen
Järjestelmät	0,859	39	66	93	72	57	68	43	102	Hallinto & Valtio
Läpinäkyvyys	0,846	2	4	4	2	3	4	0	5	Hallinto & Valtio
Työelämä	0,840	80	48	84	78	25	46	62	157	Työllisyys
Uudistaminen	0,838	37	39	62	86	37	50	49	88	Hallinto & Valtio
Vienti/-tuotteet/-teollisuus	0,828	8	9	12	16	17	4	4	20	Talous
Tasa-arvo	0,810	21	10	15	15	2	5	27	27	Oikeudet & eettisyys
Tasapaino	0,810	4	7	13	12	4	6	14	12	Valtion budjetti
Tavoitteet	0,805	31	28	51	61	25	34	29	83	Hallinto & Valtio
Bio-	0,801	4	3	3	18	5	5	6	12	Teknologia
Yksityinen	0,784	7	27	18	23	37	11	6	21	Yritykset & yrittäminen
Tehokkuus	0,783	14	29	52	34	44	20	21	44	Talous
Kilpailukyky	0,780	28	42	32	24	54	23	14	35	Talous
Vähennykset/vähennys	0,758	3	7	1	21	5	8	5	14	Talous
Tuotekehitys	0,748	11	1	7	4	1	13	2	7	Yritykset & yrittäminen
tietoyhteiskunta	0,734	3	7	0	0	7	0	2	1	Teknologia
Palvelut	0,719	44	63	106	87	71	52	76	101	Hallinto & Valtio
Uudistukset	0,689	9	13	12	22	3	16	11	26	Hallinto & Valtio
Talous/taloudellinen	0,679	51	40	94	81	58	45	58	105	Talous
Ympäristö-	0,667	11	12	19	13	20	3	5	27	Ympäristö
Veroparatiisit	0,640	0	0	1	7	0	1	3	4	Verosuunnittelu
Politiikat	0,635	20	40	29	35	26	17	21	60	Hallinto & Valtio
Työttömyys	0,599	13	4	17	15	1	8	15	25	Työllisyys
Oppiminen	0,582	13	4	16	9	5	7	11	19	Koulutus & tutkimus
Maahanmuuttopolitiikka	0,581	4	2	0	0	1	0	3	2	Maahanmuutto
Köyhyys	0,549	1	6	5	2	4	1	2	7	Työllisyys
Sosiaaliset/sosiaalinen	0,533	22	10	21	19	3	10	11	48	Oikeudet & eettisyys
Yhteistoiminta	0,532	13	3	18	1	1	15	4	15	AY-toiminta
Ostovoima	0,427	1	4	4	17	7	1	11	7	Talous
Suomi	0,404	120	150	168	161	153	59	86	301	Suomi & Suomalaiset
Hallitus/hallitukset	0,361	41	29	44	62	44	41	31	60	Hallinto & Valtio
Kehittäminen	0,355	74	53	69	74	36	59	51	124	Talous
Työaika	0,308	16	8	20	8	7	11	5	29	Työllisyys
Taloukehitus	0,269	1	2	1	1	3	0	0	2	Talous
Maahanmuuttajat	0,265	4	6	9	12	1	7	6	17	Maahanmuutto
Oikeudenmukaisuus	0,250	6	7	17	18	7	1	12	28	Oikeudet & eettisyys
Työmarkkinapolitiikka/-järje	0,250	24	13	13	13	2	13	9	39	AY-toiminta
Epävarmuus	0,229	8	4	10	0	4	3	3	12	Työllisyys
Työttömyys/työttömät	0,193	31	20	47	31	5	15	25	84	Työllisyys
Työehdot	0,133	12	3	14	10	3	4	6	26	Työllisyys
Ympäristö	0,133	9	7	9	7	5	3	9	15	Ympäristö
Ammatillinen/ammatti	0,126	35	25	43	36	10	11	28	90	Työllisyys
Tulonjako	0,112	2	2	3	10	1	2	3	11	Oikeudet & eettisyys

8.4.3 Concepts with low weightings

	Freq	2003	2007	2011	2015	EK	AKAV	STTK	SAK	Kategoria
Eettisyys	0,085	3	0	1	3	0	1	3	3	Oikeudet & eettisyys
Suomalaiset	0,077	43	42	51	73	73	10	37	89	Suomi & Suomalaiset
Pienituloiset/-palkkaiset	0,044	0	7	9	6	2	0	2	18	Työllisyys
Eurooppa/eurooppalainen	0,025	25	24	20	14	13	17	5	48	Eurooppa & EU
Perussopimus	0,022	0	1	3	3	0	0	1	6	Oikeudet & eettisyys
Tuloerot	0,009	2	0	3	8	0	0	3	10	Oikeudet & eettisyys
Kilpailuetu	-0,008	0	4	2	5	3	0	2	6	Talous
Yhteiskunnallinen/-vastuu	-0,014	72	38	49	28	46	13	27	101	Oikeudet & eettisyys
Kollektiivinen	-0,040	1	1	5	0	0	1	0	6	Oikeudet & eettisyys
Työntekijät	-0,074	77	64	103	85	11	34	47	237	Työllisyys
Sairaus/-vakuutus/-hoito	-0,087	21	9	26	12	1	6	16	45	Työllisyys
Epättyypillinen	-0,124	3	0	2	4	0	1	2	6	Työllisyys
Veronkierto	-0,187	0	0	3	3	0	0	0	6	Verosuunnittelu
Työnhakijat	-0,239	3	4	10	3	0	1	1	18	Työllisyys
Ihminen/i ihmiset	-0,240	28	19	18	24	9	0	22	58	Oikeudet & eettisyys
Sopimusyhteiskunta	-0,309	0	1	2	2	0	0	0	5	AY-toiminta
Elinkeinopolitiikka	-0,320	8	9	7	7	4	3	4	20	AY-toiminta
Pääoma	-0,331	15	5	1	7	1	3	5	19	Talous
Verovuodot	-0,337	0	0	0	6	0	0	0	6	Verosuunnittelu
Työttömyyspäiväraha	-0,381	0	2	2	0	0	0	0	4	Työllisyys
Luottamus	-0,396	11	3	2	3	2	1	4	12	Oikeudet & eettisyys
Unioni	-0,444	24	10	8	4	2	10	1	33	Eurooppa & EU
Työttömät	-0,508	13	14	18	9	2	5	5	42	Työllisyys
Rasismi	-0,587	1	2	2	1	0	0	0	6	Oikeudet & eettisyys
Perusoikeudet	-0,714	12	10	8	1	1	4	1	25	Oikeudet & eettisyys
Työttömyyskassat	-0,735	2	1	1	2	0	1	0	5	Työllisyys
Työehtosopimukset	-0,852	14	7	11	17	4	0	3	42	Työllisyys
Vaikutusmahdollisuus	-0,899	6	4	2	3	0	1	1	13	AY-toiminta
Epäterveet	-1,281	1	0	0	1	0	0	0	2	Työllisyys
Luottamusmiehet/-henkilöt	-1,378	5	3	4	0	0	0	0	12	AY-toiminta
Ammattiyhdistys/-toiminta	-1,454	12	3	2	1	0	1	1	16	AY-toiminta
Työttömyysriski	-2,260	2	0	0	0	0	0	0	2	Työllisyys