

Understanding collective bargaining coordination: a network relational approach.

The case of Spain

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This publication constitutes a deliverable of the NETWIR project – Networked Coordination of Industrial Relations

This project has received funding from the European Commission, DG Employment, Social Affairs and Inclusion under Agreement No VS/2018/0023.

June, 2020

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Please refer to this publication as follows:

Molina, O. & Godino, A. (2020). *Understanding collective bargaining coordination: a network relational approach. The case of Spain*. NETWIR Research Report. https://ddd.uab.cat/record/229075

Information may be quoted provided the source is stated accurately and clearly. This publication is also available via: http://netw-ir.eu/reports/

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List of Acronyms Employed in this Paper

AICV Agreement on the Extension of Collective Bargaining

AIEE Agreement on Employment Stability

AINC Agreement on Collective Bargaining

ANGED Asociación Nacional de Grandes Empresas de la Distribución (National Association of Large Retailers)

CB Collective bargaining

CES Consejo Económico y Social (Economic and Social Council)

EO Employment Organisation

FASGA Federación de Asociaciones Sindicales de Grandes Almacenes (Federation of Trade Unions' Associations of Large Retailers)

FEIQUE Federación Empresarial de la Industria Química Española (Business Federation of the Spanish Chemical Industry)

FETICO Federación de Trabajadores Independientes de Comercio (*Independent Trade Workers' Federation*)

MEB Multi-employer bargaining

SEB Single employer bargaining

1. Introduction

1.1. Coordination of collective bargaining in Spain

Spain is characterised by the existence of a multi-level bargaining structure, with a historically weak articulation between levels (Martin and Alos 2003). In the early years after the transition to democracy, collective bargaining occurred at several levels, with negotiations at territorial (provincial) sector level being the most significant in terms of workers covered. However, negotiations took place at several instances, and the issues were very often re-negotiated at lower levels, hence leading to cascading negotiations. The hierarchy principle in the Workers' Statute made it very difficult for company level agreements to lower the conditions negotiated at higher level. Peak agreements in the early 1980s contributed to maintain a formally high level of centralization, but after its abandonment since the mid-1980s, a process of gradual de-centralization occurred due to the lack of a clear articulation between bargaining levels. Even though bargaining took place at several levels, the main bargaining locus became the sector at provincial level (Del Rey 2003). The limited presence of unions at enterprise level hindered the efficacy of collective negotiations at higher levels because only occasionally they affected workers in small and medium-sized establishments. Because of the above, collective bargaining was very sensitive to changes in the strategies, preferences and power of actors, hence lacking stability and becoming a source of permanent conflict, as showed by the comparatively high conflict rates.

After the unilateral regulation of collective bargaining in the early 1990s, that extended the use of opting out clauses thus contributing to a 'de facto' disorganised decentralization, social partners signed a number of agreements in the late 1990s for a consensus-based rebuilding of industrial relations. These were the AIEE (Agreement on Employment Stability), AICV (Agreement on the Extension of Collective Bargaining) and AINC (Agreement on Collective Bargaining), signed in 1997. The AICV helped to speed up and give greater coherence to the substitution of the Labour Ordinances by collective agreements. The AINC focused exclusively on the reform of collective bargaining processes and structure.

Since then, peak cross-sectoral agreements have become a keystone of collective bargaining coordination and governability in Spain, setting (non-binding) guidelines for social partners at sectoral and company level. These agreements have promoted a top-down, organised form of de-centralisation through the recovery of bargaining power of national federations whilst preserving firms' capacity to adapt the conditions set at higher levels to their specific needs.

The trend towards collective bargaining decentralization accelerated in the context of the Great Depression and shifted towards a bottom-up, disorganised character after its unilateral regulation in 2012. This reform not only enhanced the regulatory capacity of

company level agreements, but it also gave more regulatory power to employers, eroded the regulatory capacity of sector level agreements, and put a limit to the duration of collective agreements after expiry.

This has made clear the unstable equilibrium in industrial relations of statist varieties of capitalism. The threat of unilateral state regulation is always present and increases with exogenous shocks. Because of this, social partners' incentives to build strong self-regulation capacities may decrease. This will at the same time generate new demands for government regulation. Thus, industrial relations change in the Mixed Market Economies of Southern Europe will accordingly be characterised by being most of the times induced exogenously, state-driven and radical (Molina and Rhodes 2007).

However, the peak cross sectoral agreements governing and coordinating collective bargaining have exhibited significant resilience notwithstanding the unilateral interventions in industrial relations. Bi-partite social dialogue between unions and employers has remained well alive during the crisis and has contributed to an increasing awareness of the need to enhance the capacity of collective agreements to adapt to changing conditions through internal flexibility.

1.2. The Collective bargaining process and social networks

Just like any other element of industrial relations in Spain, the bargaining process is subject to detailed statutory regulation. Chapter III of the Labour Code defines who can sit at the bargaining table, how should the bargaining process start, and the development of the bargaining process. Trade union representatives in multi-employer bargaining (MEB) and works council members in company level are the actors on the union side. Similarly, employer representatives in multi-employer bargaining and management in single employer bargaining (SEB) are the actors involved in negotiations. Both in MEB and SEB, the criteria used to determine the parties involved and their number in the negotiating table is established according to results of works council elections.

The increase in the number and technical complexity of issues negotiated in collective agreements, has led to the incorporation in the bargaining teams of trade unions and employers of external advisers (Sanguineti 2002). As the representatives of trade unions and employers do not necessarily have the technical knowledge and skills to negotiate on the wide range of issues covered by collective agreements, the participation of these advisers becomes an important element in order to ensure the success of negotiations. These external advisers can be other members of the participating organisations not involved in the bargaining committee, or a person external to them. For this reason, the advisers' role will be limited to supporting other actors but will not have voice in the process.

Another important characteristic of industrial relations in Spain, which has a relevant impact on the bargaining process is the fragmentation in the trade union landscape. This fragmentation occurs along several axis, including the ideological, territorial or the scope of union action and organizational logic (class, occupation, company etc.). Even though the number of trade unions represented varies significantly across sectors,

companies and regions, this is an element with important repercussions in the bargaining process. First, because it obliges trade unions to develop what Walton and McKersie (1991) call intra-organizational bargaining, a process aimed to reach consensus among all the parties involved in the union side.

Even though the Labour Code is very specific when it comes to establishing the criteria for those actors involved in the bargaining process, it only provides general orientations around the development of the bargaining process, thus opening the door to the use of different strategies by the actors involved in order to enhance their bargaining position or facilitate reaching an agreement. The bargaining process starts with setting up the negotiating commission (Mesa de Negociación / Comisión Negociadora) whereby all actors represented within the functional scope of the collective agreement recognise each other (based on their representativeness) and designate those who will represent them in the negotiating commission. This is then followed by a series of events including meetings (formal and informal; bilateral or multilateral; intra-organizational and inter-organizational etc.), information exchange, press communications, strikes and demonstrations etc. The specific context of the company / sector will determine the network of actors involved, but also the dynamics in the bargaining process and the events.

2. SOCIAL NETWORK ANALYSIS IN THE LITERATURE ON INDUSTRIAL RELATIONS IN SPAIN

Research on industrial relations in Spain is largely dominated by legal analyses and approaches as a result of its highly regulated character. Economic, sociological or psicosocial studies also exist and are growing in number, but still represent a relatively small proportion of the research made on the field. As a result of this, institutional and legal approaches dominate the research scene in industrial relations in Spain. Moreover, there is a very limited set of methodologies and little methodological innovation and experimentation in the field. To this we have to add the lack of adequate datasets available to carry out research in the field.

As a consequence of the above, the relational approach and the use of social network analysis has been absent from the literature in the field. The only exception to this is the work by B. Roca, that have used the notion of network to study trade union recruitment strategies (2016), but also solidarity networks among migrant workers. There is no research to date that applies a relational approach to the analysis of collective bargaining.

3. METHODOLOGY

3.1. Case selection

To apply that relational approach to the analysis of collective bargaining coordination, the NETWIR project decided to select two sectors as case studies in the four countries analysed:

Retail and Pharmaceutical industry. However, in the Spanish context this selection is focused with certain peculiarities (as it is further explained below in sections 4.1.2 and 4.2.1). Collective bargaining in the Retail trade sector in Spain is dualized along company size: large retailers having their own collective agreement at national sector level, while small retailers and other activities within the retail trade sector develop collective bargaining at several levels. In that regard, the network analysis of collective bargaining has been carried out for the negotiation of the large retailers. In the other hand, for the pharmaceutical sector, the collective bargaining process is developed together with the chemical sector in Spain, being a well-established process functioning as a sectoral national framework. Therefore, the network analysis of collective bargaining is carried out for the negotiation of the whole chemical sector (including pharma). In that regard, we carry out two inverse processes in the selection of cases: we focus on one part of Retail sector (Large retailers) while broadening the sectoral selection of Pharma (Chemical sector).

3.2. The sample

As the research has develops two-mode networks analysis, the samples of both sectors consist not only of actors, but also events. Each sectoral case study's population try to include all the actors involved in collective bargaining coordination in Large retail and Chemical sectors. In that sense, a first actors' census was bult relying on semi-structured interviews with key actors (Table 1), contributing to elaborate the final census of actors for each sectoral case study.

Table 1: Overview of the number of key actors' interviews held

| | Large retail | Chemical |
|-----------------|--------------|----------|
| Employers' side | 3 | 3 |
| Trade unions | 2 | 4 |

The period considering in the analysis is 4-5 years, reconstructing the network of each sectoral collective bargaining process in this period of time (particularly during the negotiation of the sectoral last collective agreement at national level). In that sense, the research traced back the coordination events taking place in that process, but also the actors involved.

Table 2: Overview of the number of type of events in the Chemica-Pharmal case study

| | Formal | Informal | Mixed |
|-----------------|--------|----------|-------|
| Employers' side | 1 | 1 | - |
| Trade unions | 4 | - | 1 |
| Both actors | 1 | 9 | 1 |

The census of actors for the chemical-pharmaceutical sector included a large number of actors (50), due mainly to the early access to the official minutes of the negotiation table, although subsequent interviews with key actors reduced that number (44). Regarding the census of events, the high number of semi-structured interviews to these key actors (7) allowed to have an extensive list of events (17), gathering formal, informal and mixed events from both trade union and business organizations (Table 2).

Table 3: Overview of the number of type of events in the Large retail case study

| | Formal | Informal |
|-----------------|--------|----------|
| Employers' side | 1 | 1 |
| Trade unions | 2 | 2 |
| Both actors | 3 | 1 |

In regard to the Large Retail case study, its initial census counted with 25 actors, although key actors granted access to 21 of them, due to lack of relevance in the CB process, potential reiteration of information provided or because they were no longer members of the negotiating organizations. Regarding the census of events, the lower access to key actors is also reflected in a smaller initial compilation of events (10), in this case without mixed formal / informal ones (Table 3).

3.3. Evaluation of the data collection

The survey was distributed through SurveyMonkey on-line platform to all these individuals finally indicated by key actors considered as individuals that were part of the negotiation process at some point, influenced the negotiation process and/or were part of the social network. Each individual received a personal invitation with a personalized message in order to increase the response rate (customizing names, organizations, positions and even the person who provided the contact). Periodic reminders were programmed depending on the state of each survey response (survey not opened, no response, not completed, etc.). In the many cases of no response after several reminders, we established contact through email and/or telephone. Also, in the numerous cases of individuals who were not completing the network part of the survey, but only the sectoral context questions.

Table 4: Responses to the questionnaire

| | Large retail | Chemical | |
|--------------------------|--------------|----------|--|
| Initial census of actors | 25 | 50 | |
| No contact information | 4 | 5 | |
| No response | 11 | 17 | |
| Partial response | 1 | 5 | |
| Completed survey | 9 | 23 | |
| Total responses | 10 | 28 | |

The data collection results (Table 4) shows the relevance of very initial collaboration of actors together with the influence of the coordination itself within actors to participate in such studies analysing their interactions within CB negotiations. In that sense, chemical bargaining actors have seen clearer the benefits of participation in this type of research for them. Regardless, information about people that did not respond to the questionnaire is removed from most of the analyses for ethical reasons. Consequently, the results should be interpreted taking consideration they only shed light on that part of the network that filled out the survey.

4. SECTORAL ANALYSIS

4.1. Pharmaceuticals

4.1.1. Socio-economic situation of the sector

The Pharmaceutical industry is a strategic sector for all countries considering its impact on public health and other industry sectors, much more in light of the current pandemic crisis. The intensive activity in scientific and technological research of this sector has its global epicentre in Europe (together with the US). In this regard, Spain is the 9th European Union member state exporter and the 12th country at global level in the pharma industry (OECD 2018). Specifically, 353 companies (most of them large-sized) represented the 1.17% of the Spanish GDP, employing 42,653 workers (INE 2017), together with 160 thousand indirect jobs (Farmaindustria 2018). It is important to take in consideration also data of the chemical industry for the case of Spain since both sectors are within the same collective bargaining process. Thereunder, the chemical sector employs 89,908 employees (together with 340 thousand indirect jobs (FEIQUE 2019)) concentrated in a wider number of companies (3,542), contributing to the 3.45% of the Spanish GDP (INE 2017). In fact, sales of the chemical-pharmaceutical industry grew by 13.5% in 2018, thus contributing the 18.2% of the total Spanish industry (INE 2018).

10,0% 5,0% 0,0% 2008 2016 2011 2012 2013 2014 2017 -5,0% -10,0% -15,0% -20,0% Chemical industry Pharmaceutical industry Total economy

Figure 1: Variation of employment in Chemical, Pharmaceutical and all sectors in the period 2009 – 2017 in regard to 2008

Source: Own elaboration based on Companies Structural Statistic and Active Population Survey (INE 2020)

Moreover, the chemical-pharmaceutical sector has not only better economic indicators than the Spanish average, but also in terms of employment. The pharmaceutical sector resisted better the impact of the past economic crisis, even increasing the number of workers in 2017 compared to 2008 (5.6%). In contrast, the Spanish economy had 7.3% less workers than at the start of the (3.9% less in the case of the chemical sector) (Graph

1). Similar trends in terms of working conditions: the chemical-pharmaceutical activities count with much higher salaries (Graph 1), better figures of permanent contracts (93% of permanent employment compared to 73% of the national average), higher rates of full-timers (97% - 98,5% in front of the 85.2% national average) and higher participation of women (the pharma industry employs the double of women than the Spanish industry average (52%)) (INE 2018, FEIQUE 2019 and Farmaindustria 2018).

 $0 \in \quad 5.000 \in 10.000 \in 15.000 \in 20.000 \in 30.000 \in 35.000 \in 40.000 \in 45.000 \in 41.341 \in 41.34$

Graph 1: Annual salary average (2018) in Chemical and Pharmaceutical industries in comparison with economic sectors and national average¹

Source: Annual survey of labour costs (INE 2020)

In any case, the workforce of the sector is highly qualified: the pharma sector counts with 62% of highly educated workers in front of the 42% of the national average (Farmaindustria 2018). Likewise, there is larger proportion of large companies in the pharmaceutical industry (and in a lesser extent in the chemical industry), mostly located in the metropolitan area of Barcelona. The most important firms are Novartis (with 1,806 employees in Spain), Boehringer (1,600), Ferrer Internacional (1,180), Teva (785) and Pfizer (767)². In that regard, it should be noted that (at least for the case of Spain) there is a direct correlation between the existence of workers' representation and union affiliation at company level, and the larger size of companies (Alós et al., 2015). Thus, the pharmaceutical and chemical companies' composition should therefore have an effect to greater skills of workers' representatives in collective bargaining.

4.1.2. Single and multi-employer collective bargaining

The collective bargaining process for the pharmaceutical sector is developed together with the chemical sector in Spain. Thus, the main social actors in the CB process represent companies and workers of the chemical / pharmaceutical sector. FEIQUE (Business Federation of the Spanish Chemical Industry) is the most representative employer association, defending the interests of the chemical sector firms in Spain since 1977. FEIQUE represents (directly and indirectly through its territorial and subsector associations)

¹ National average excluding agriculture and domestic activities.

² Data gathered from companies' annual reports and internal information for year 2017 or 2018.

more than 1,500 chemical companies located in Spain, which together generate 75% of Spanish chemical production. Among its members is Farmaindustria (Pharmaceutical Industry employer association), established in 1963, which gathers the majority of the innovative pharmaceutical laboratories (now 155), the 94% of workers in the pharmaceutical industry and the 90% of the current market for original medicines in Spain. Likewise, it is worth highlighting an actor also relevant in the collective bargaining process of the chemical industry in Spain: Arinsa, a firm of labour lawyers and experts in industrial relations, which since the 70s advises FEIQUE and negotiates directly with unions in collective bargaining processes in the sector.

On the union side, CCOO-Industria (the Federation of Industry of Working Committees union) is the trade union with more active members within the chemical sector (15,005 in 2014), followed of UGT-FICA (the Federation of Industry, Construction and Agriculture of the General Union of Workers) with 6,614 active members, according to the EurWork database (Eurofound 2014). There are others regional unions that are considered representative within the sector, participating in the sectoral collective bargaining process at national level but not signing the agreement (e.g. CIG - Galician Interunion Confederation) or even refusing to participate in the process (e.g. ELA - Basque Workers Solidarity union).

The collective bargaining in the chemical sector (which includes the pharmaceutical sector) is a well-established process with a long history since the beginning of the democratic phase in Spain: the first agreement was negotiated in 1978, counting with 18 agreements signed nowadays. This is therefore a CB process with strong coordination at sectoral and national level: the last agreement (signed in 2018) covers 3,100 companies and 242,500 workers in the sector. In this sense, both employers and workers representatives with long trajectories negotiating in the chemical sector asses that the chemical agreement is a reference for other sectoral CB processes and for also for company level negotiations (within and out of the sector). In that regard, some of the most relevant companies in the sector have their own collective agreements (despite participating in the sectoral negotiation process): that is the case of Repsol, Michelin, Briston (Firestone) and especially Fertiberia. Although currently the negotiation at company level prevails over sectoral in the current Spanish labour regulatory framework, workers and employers' representatives of the chemical sector propose and recommend that companies with their own agreement should adhere to the sectoral agreement in areas already agreed. Likewise, other companies adhering to the sectoral agreement negotiate at company level the socalled "articulated pacts": negotiated documents adapting the sectoral agreement to the reality of the company, also including additional agreements on areas not covered by the sectoral agreement. The most relevant articulated pacts are those of the companies Bayer, **BASF** and Ercros.

Regarding the last sectoral agreement (2018), it includes: minimum wages, average wage increases of 2.50% (with increasing salary revision clauses) and salary supplements according to seniority, absenteeism, night-shifts, etc.; 30 working days of holidays; not mandatory overtime; clauses to limit temporary work and subcontracting; functional mobility clauses; and instructions to negotiate equality plans in al company sizes (anticipating national intersectoral regulation in this regard). This is reflected in the good working conditions of the sector compared to the rest of the Spanish economy reflects. Although the negotiation process of the sector starts from great consensus, 38 articles have

been modified in the last agreement. These have been bargained through three negotiating commissions (Equality, Professional Classification and Training) organized around four thematic items: Positive action, equality and licenses; Occupational health, environment and union rights; Employment, classification and professional training, and functional and geographical mobility; and Workday, wages and other issues.

However, beyond the formal mechanisms during the negotiation process, both the exploratory interviews and the survey responses show a prominent importance to informal interactions during the negotiation: informal multilateral events are considered the most relevant after the formal multilateral ones. That is the case of the so-called "days of coexistence" in which members of the FEIQUE team, sub-sectoral, professional and/or provincial partner associations hold informal pre-negotiation event for days. That is also the case of dinners between unions and employers' representatives during the negotiation final stage (to which prominent members of the organizations are also invited although they are not currently participating in the negotiation). In any case, the importance of formal collective events prevails in the employer and union sides: both hold formal coordination meetings before and during the negotiation to unify criteria in the negotiation. In any case, some employer side members encourage that one of the main obstacles in the negotiation is the lack of coordination between the unions. Moreover, some of the actors interviewed highlighted the relevance of the "Reduced Commission", developed during the final phase of the negotiation (prior to the drafting commission) in which two or three members of each organization hold two or three meetings to unblock certain aspects of the negotiation. The relevance of this event lies in its formal call while its development is informal (that is, official but without minutes). Members of the commission are required to negotiate without previous positions of the organizations, developing the meetings in an open, without conflict and in trust environment, all with a single goal: to find solutions to the demands of each organization. In other words, the negotiation process uses informal mechanisms in a formal event for the success of the negotiation.

4.1.3. Network Analysis of CB in Pharmaceuticals: Survey results

Response rates, sample description, influence and involvement

Regarding the results of the analysis of social networks in the sector, the social actors in the chemical sector in Spain have responded very positively, showing high collaboration and participation in the objectives of the study with 28 survey respondents. However, the response rate is 56% due to the bigger exploratory network size (50), due to the accessibility and transparency sharing information about every individual participating in the sectoral CB process. However, five participants declined to respond to network questions, so specific response rates can be computed for networks dividing the number of respondents to these questions by the network size. Therefore, respondent rate decline to 46%. Anyhow, as explained in the methodological section, networks size have been finally delimited based on a standardized criterium for all countries and sectors: network members are only those actors with a perceived influence on wage-setting higher than 1.5 (median value from a minimum of 1 and a maximum of 5 in a Likert scale). The relevant issue for the Chemical / Pharma sector in Spain is that figures remain, being the only case of the research with all its initial network members with wage-setting influence index higher than 1.5.

Concerning the composition of the sample, we had a high response from both employers (18) and union representatives (10). Likewise, the sample has a balanced distribution also of political (15) and technical (12) profiles. And with a greater response from women compared to the rest of the countries studied, although with similar proportions (9 women in front of 19 men). In other regard, the perceived influence of each actor shows the influence that each respondent has on wage setting according to others' perceptions (computed based on median value from a minimum of 1 and a maximum of 5 in a Likert scale). The 53.5% of pharma actors have 4 or more median influence (similar to the 54.8% of the pharma actors in the other countries).

About the involvement in the bargaining process, most of the individual actors have participated in the Chemical / Pharma negotiations for more than five years (67.9%), higher than the average in the sector in the rest of the countries (56.8%). This is somehow sign of the consolidation of the bargaining process in the sector, with long-standing relationships not only between organizations but also between individuals themselves with relationships of trust established over decades of negotiations. In any case, this does not prevent the Chemical pharma actors from participating in the negotiation processes of other sectors, mainly manufacturing and agriculture, but also services and transport. The main reason behind is the multi-sectoral nature of union federations, but also the involvement labour lawyers firm advising the employer side in several collective bargaining processes such as chemical and large retail.

Event attending, form of interaction and main challenges for coordinating

We refer by events to any significant development for wage-setting in the sector, both formal and informal, whenever they occurred in the period under consideration and had a direct influence / impact on the wage-setting process in the sector. Although events at micro (company) level or macro (economy) could be included, the meso (sector) level is the predominant level in the events of the Chemical pharma in Spain. In that regard, the mean of attendings in the sector in Spain is around 7 (same of the average of every country studied), while the proportion of event attending is around 85% (meaning the maximum number of events attended for any actor of the network), higher than the average of the rest of cases (72%). It should be noted that actors attending more events are not necessarily those with higher influence in wage setting. Although Pearson's correlation between the % of events attended and the perceived influence differs among countries (Table 1), this correlation is only significant in Spain due to its statistical sample.

Table 1: Pearson's correlation between number of events attended (relative) and perceived influence

| Ireland | Italy | Netherlands | Spain | Total |
|---------|--------|-------------|--------|-------|
| 0.365 | -0.229 | 0.246 | 0.400* | 0.145 |

Source: NETWIR project Survey

The interactions between the actors in these events are predominantly multilateral formal (but also informal) meetings, similar for example to the Pharma collective bargaining in Netherlands. However, there are differences considering the side: while the 34.6% of the employer side actors consider the informal multilateral meetings the most important form of interaction in the CB process, only the half of the union side (17.9%)

consider the same. Same divergence respect to the sex of the actors, with more men (30.8%) than women (13.3%) seeing informal multilateral meetings as most important. Anyhow, formal multilateral events are always considered the most important disregard of side or sex.

Table 2: Averages comparison of main challenges for coordinating in regard to bargaining side ($1 = \text{irrelevant} \mid 5 = \text{extremely relevant}$).

| | Employer | Union | Total |
|---|----------|-------|-------|
| Lack of trust | 2.56 | 2.98 | 2.79 |
| Power differences | 2.61 | 3.02 | 2.85 |
| Fragmentation in the representation of workers or firms | 3.00 | 2.88 | 2.93 |
| Obstacles from economic and/or sectorial context | 3.66 | 3.24 | 3.42 |

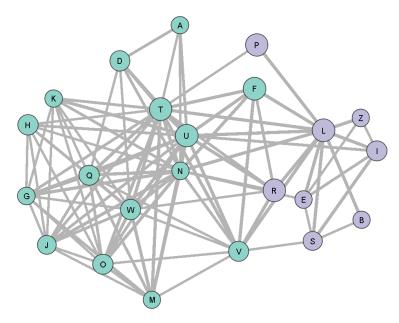
Source: NETWIR project Survey

While in Spain there are no pattern settlers for wage setting, that is, other sectors that determine to a greater or lesser extent the wage setting in the chemical pharma sector, it does seem more common in other countries (whether sectoral or company agreements). In regard to the main challenges for the coordination of the collective bargaining process in the chemical / pharma sector in Spain, the survey results show that the main obstacles are related to the economic and sector context, and therefore are exogenous causes to the actors (table 2). In any case, exploratory interviews with both employer and union actors show that the division between unions is also a major obstacle, especially with regard to specific clauses (national standardization of wage increases, forms of flexibility and the introduction of private pension plans) but also when evaluating the agreement.

Contact networks

As already mentioned, the success of the Chemical / Pharmaceutical sector negotiation process is largely based on the relationships of trust between the actors, established during decades of negotiation. This apparent simplicity in the relationships allows, on the one hand, the negotiation process of each agreement to proceed without notable conflicts through the formal events and, when appear disagreements difficult to negotiate, informal interactions and events help to solve them. Although, informal events serve in general terms to create consensus environments, either between both parties (e.g. informal dinner between negotiating and related actors) or on each side (e.g. "days of coexistence" of the employer side). Thus, the implementation of a relational approach to collective bargaining in the sector can allow to explore the mechanisms whereby actors in the network negotiate and try to reach the agreement of other actors (particularly to the role of informality), but also to distinguish the role played by trade unions and employers in the bargaining network.

Graph 2: Contact networks in the Chemical / Pharmaceutical sector (links \leq 5 have been removed for better visual interpretation (scale from 0 = never to 8 = very frequently))

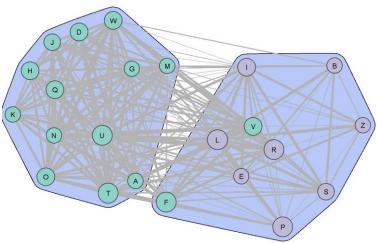


Legend: [Label: id] [Link size: frequency (sum)] [Node size: influence] [Node Color: side (Blue = union / Green = employer)]

Source: NETWIR project Survey

Considering the average ties strength (that can be interpreted as a measure of density that takes into account the weight of each tie), the differences between ties within employer side (6.08 over a maximum of 8) and within union side (5.04) together with the low average tie strength number between unions (2.23) show that even considering the balanced relations of the Chemical CB process in Spain, employer actors have more density in the network. That is, the better coordination of the employer side through cohesion mechanisms have effect on more frequent and established (formal and informal) relations between its actors. On the contrary, union actors limit their interactions to the formal events, being much more infrequent than employers, which influences to the problems of fragmentation of workers representatives.

Graph 3: Communities (subgroups) in the contact network



Legend: [Label: id] [Link size: frequency (sum)] [Node size: influence] [Node Color: side (Blue = union / Green = employer)]

Note: Subgroups within the network have been computed based on Louvain clustering with edge weighting. Source: NETWIR project Survey

In this manner, we can observe this different coordination of both sides observing communities within the contact network (Graph 3). Thus, we observe that the employer side subgroup has stronger ties among all its members, due to the important coordination work at the national level of the chemical employer association with all its sub-sectoral and regional members. Likewise, the actors of the labour lawyers firm working for the employer association fulfil the role of intermediary with the union part, establishing trust relations with the union actors (Graph 3). Above all, it should be noted the actor V, a senior member of that organization who, despite no longer actively participating in the negotiation process, plays a conciliatory role between the parties through formal and informal interactions.

Union actors show much less interaction, mainly due to their organizational fragmentation: on the one hand, there is no real organizational structure that unifies the union side (the two unions coordinate with each other through the so-called union platform prior to the start of the negotiating agreement process). On the other hand, each union has internal structures at regional level, which also requires significant work to implement consensus mechanisms prior to the CB process (pre-negotiation days) and internal democracy mechanisms to ratify the agreement reached (regional assemblies of validation). The implementation of these mechanisms, essential to maintain consensus and internal democracy within unions, may entail less intra-coordination compared to employers.

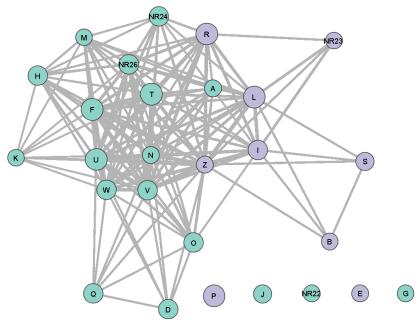
Graph 4. Co-attendance network from affiliation data (complete view, weighted data).

Legend: [Label: id] [Link size: frequency (sum)] [Node size: influence] [Node Color: side (Blue = union / Green = employer)]

Source: NETWIR project Survey

Putting these interactions in the context of the attendance to events in the framework of the negotiation process of the agreement, most of the actors of both sides participate in the majority of detected events, although with greater assiduity in the employer side (Graph 4 and 5). This can be related to the greater importance of the organizational structure of unions in regional federations, delegating the attendance of most negotiation events to the responsible actors at the national level and segmenting intra-union events by union and regions. On the other hand, most of employers' side actors attend to most of the CB process events, both intra-side and with unions.

Graph 5. Co-attendance network from affiliation data (reduced view, simplified & binary data).



Legend: [Label: id] [Link size: frequency (sum)] [Node size: influence] [Node Color: side (Blue = union / Green = employer)]

Source: NETWIR project Survey

4.2. The Retail Trade Sector in Spain

4.2.1. Socio-economic situation and structure of the sector

The retail is a strategic sector in the Spanish economy, not only because of the size and employment it generates, but also because it is a good mirror for the great changes that are taking place in the global economy.

The retail sector accounts for 13% of the Spanish GDP and it is the one that concentrates the highest share of employment, with 15.5% of total employment (around three million jobs), in addition to having the most stable jobs, since 77.5% of wage earners have a permanent contract, 2.3 percentage points above the average for the Spanish economy. Moreover, the sector has strong positive effects on other sectors of the economy, since, taking into account direct, indirect and induced effects, the incidence of commerce

on total activity and employment is approximately equivalent to 30% of GVA and employment. Another characteristic of employment in retail trade sector is a high incidence of part-time, particularly among women. In 2019, 15.9% of employees in the sector had a part-time job, compared to 14.6 average in the economy. In the case of women, 24.6% had part-time jobs in 2019 compared to only 7.4 of men.

18,0
16,0
14,0
12,0
10,0
8,0
6,0
4,0
2,0
0,0

2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

Wholesale and retail trade

Graph 6. Employment in Wholesale and Retail trade as a % of total employment, 2008-2019

Source: Active Population Survey (INE)

Employment in the retail sector is distributed equally between men and women, that is, with a percentage of practically 50% for both groups, and that it is one of the sectors with the highest productivity gains between 2000 and 2018. In this period, total productivity increased by 44.3% in retail, more than double the increase registered in all the other sectors in the economy, which was 18.6%.

Retail

According to the Annual Retail Survey, this sector is made up of 762,388 companies in Spain and the turnover of these companies reached 770,133 million euros. In addition, the investment carried out by retail rose to 11,370 million euros in 2017.

The weight of retail in Spain in 2018 was higher than the average of the European Union countries (13% of GVA in Spain, compared to 11.2% in Europe) and also higher than the four main European economies (Germany, France, Italy and the United Kingdom).

The retail sector in Spain is characterized by a dual structure. On the one side, around 95% of the companies in the sector have less than ten employees, representing 46.2% of the whole workforce in the sector, and their revenue is around thirty percent of the total. On the other side, large retailers account for 0.1% of all retail companies and their revenue is around 30% but the workers involved are around 25% of the retail workforce (INE 2018). As pointed out by CEOE in a recent report 'The role of small businesses is still very relevant", (CEOE 2019). The average is 4 people employed per company in Spanish retail (the same as the service sector as a whole), with a percentage of self-employed that almost reaches 12%, compared to an average of 9.3% for the EU28 o of 7.2% for the group of countries integrated in the EU4 (Germany, France, Italy and the United Kingdom).

Considering the distribution of employment according to company size, CEOE (2019) also appreciates a notable polarization in retail between companies with less than 10 workers and the largest (250 or more employed), something that is common with the EU4 and the EU28, although in the Spanish case it is less important.

4.2.2. Single and multi-employer collective bargaining in Large Retail in Spain

Collective bargaining in the retail trade sector in Spain is also dualized along company size. Whilst large retailers have their own collective agreement at national sector level, small retailers and other activities within the retail trade sector develop collective bargaining at several levels. Thus, the Spanish retail trade sector is characterized by high level of sectoral agreements, signed for each subsector and changing in relation to the territorial coverage national, regional or provincial.

The network analysis of collective bargaining has been carried out for the negotiation of the large retailers and department stores collective agreement (Convenio Colectivo de Grandes Almacenes, Collective Agreement of Large Retailers) signed in May 2017. This collective agreement was signed at national level and applies to all those member companies of ANGED (Asociación Nacional de Grandes Empresas de la Distribución, National Association of Large Retailers). Moreover, the collective agreement also applies to those companies whose purpose is a retail activity mainly dedicated to the mixed retail trade in medium and large stores, with one or more work centers organized by departments, provided they meet at the national level, as a company or group of companies, a sales area not less than 30,000 square meters, in some of the following modalities: a) Department stores, offering a wide assortment of various product ranges (mainly articles for household equipment, clothing, footwear, perfumery, food, etc.); b) hypermarkets, understood as those companies that have one or more retail establishments offering self-service on a wide assortment of food and non-food products; and c) Large specialized stores, offering a broad assortment of a particular product or range of products, either in self-service or with the assistance of some sales staff. According to the collective agreement, around 230,000 workers are covered by it. Some of the companies covered by this collective agreement are: El Corte Ingles, IKEA, Apple Retail, Carrefour, FNAC, Leroy Merlin, Conforama, C&A, MediaMarkt, Worten, Bricomart, among others.

Several trade unions were represented in the negotiation process. Unlike most sectors in the Spanish economy, the largest trade unions in the large retail sector are not the two most representative at national level (CCOO and UGT). The most important trade union in the sector is FETICO (Federación de Trabajadores Independientes de Comercio), an independent trade union created in the late 1970s as a result of mergers between trade unions of different department stores. FETICO has nowadays around 65,000 members and is the largest and most representative trade union in the retail trade sector, with 52.6% of elected representatives in works' councils elections by 31st March 2019. In addition to the large retailers agreement, FETICO is also involved in company level collective bargaining of companies like Brico-Depot, Primark, Vips, Eroski etc. The second largest trade union in the large retail sector is FASGA (Federación de Asociaciones Sindicales de Grandes Almacenes). FASGA is another independent trade union with most members in the retail trade sector, and with a particularly important role in companies like El Corte Inglés. FASGA has around 41,000 members in sectors like retail trade, financial services, marketing etc.

and has 17.03% of elected representatives in works' councils elections by 31st March 2019. It is involved in collective bargaining both at sectoral and company level. The third trade union in the retail trade sector is the Service Federation of CCOO, followed by FeSMC-UGT with 15.21% of elected representatives in works' councils elections respectively. Graph 7 contains the distribution of representatives in the bargaining table of the collective agreements for large retail signed in 2013 and 2017.

7
6
5
4
3
2
1
FETICO FASGA CC00 UGT ELA CIG LAB

2017 = 2013

Graph 7. Trade union representatives in the bargaining table of the Large Retailers collective agreement, 2013 and 2017

Source: REGCON, Registro de Convenios Colectivos

One of the defining traits of the large retail sector is the dominance by the independent trade unions FETICO and FASGA, accused by CCOO and UGT of being 'yellow' or company trade unions, i.e., a worker organization influenced or dominated by an employer or group of employers. These conflicts in the union side explain why CCOO and UGT didn't sign previous collective agreements in the large retail trade sector, including the one signed in 2013.

For the negotiation of the 2017 collective agreement, FETICO placed as a priority to get CCOO and UGT sign it, unlike what had happened in 2013. In order to overcome the conflicts and resistances, the process of negotiation with ANGED was preceded by a series of meetings (both formal and informal, bilateral and multilateral) among all trade unions in order to reach common positions on those topics that had encountered the opposition of some trade unions to sign the previous agreement. In the case of the 2017 bargaining round, these issues were the wage increases, working time and work on Sundays and Holidays. More specifically, CCOO and UGT heavily criticised the terms and conditions agreed by FETICO and FASGA in the 2013 collective agreement, in the context of the financial and economic crisis, that led to an increase in working time, a reduction in real wages and a worsening of working conditions (including the extension of atypical forms of employment) for employees in the large retail trade sector.

Moreover, before the start of negotiations with the rest of trade unions, CCOO engaged into a consultation with workers on the sector around their priorities in relation to

the new collective agreement. The results of that consultation put four topic at the top of workers' priorities: improvement in real wages, limitations in work on Sundays and Holidays, conciliation of work and family, and the distribution of working time.

Only when an agreement amongst all trade unions on these topics was reached, negotiations with employers started. The importance of these preparatory union meetings can be seen in the short time it took to negotiate the collective agreement with employers; the bargaining table was set up in January 2017 and an agreement was reached in May 2017. Moreover, having a unitary position on the union side, allowed unions to enjoy a stronger position vis-à-vis employers in the negotiation process. According to CCOO, for the first time, there has been a real negotiation process of the collective agreement, as all their proposals in relation to the new collective agreement were debated with the rest of trade unions and the employers. For this reason, the relationship between FETICO (as the largest trade union) and CCOO (as the largest trade union not signing the 2013 agreement) was particularly important in the bargaining process.

Given the importance of the agreement that for the first time had obtained the signature of all trade unions involved in the large retail sector, the collective agreement was signed in the CES (Economic and Social Council) in May 2019.

4.2.3. Network Analysis of CB in Large Retail: Survey Results

Response rates, sample description, influence and involvement

The implementation of the network survey in the retail sector has been characterised by the positive and collaborative stance of most actors interviewed and contacted in the exploratory stages of the project. These exploratory interviews were carried out in May-June 2019, two years after the collective agreement in the large retail sector was signed. However, this cooperative stance has not always translated into a high number of responses to the network survey. A total of 10 survey responses were received, out of a 25-network size, thus leading to a 40% response rate. Despite the signature of the last collective agreement in 2017, one reason explaining this low response rate is the conflict between the independent and the class trade unions with representation in the sector. However, the ex-post delimitation of network size considering only those actors with a minimum level of influence in the network (therefore effectively eliminating those actors whose role in the network is marginal), the response rate is 46%. Moreover, when we consider those actors that are perceived as the most relevant by the rest of actors in the network (perceived influence on wage-setting higher than 3.5 (median value from a minimum of 1 and a maximum of 5 in a Likert scale), the response rate goes up to 62%, meaning that many of the important actors have answered the survey. As a matter of fact, the three largest trade unions in the sector answered the survey, together with the employer organisation.

The exploratory network was composed by a majority of actors from the four trade unions involved in collective bargaining (22) and three actors from the employer organisation involved in collective bargaining in the sector (3). One member of the employer organisation and nine union members answered the survey. Most of the actors answering the survey had a political profile, and only one of them had a technical role in collective

bargaining in the retail sector. Finally, the majority of respondents were males (7) and only 3 were women.

Notwithstanding a relatively low response rate, the exploration of non respondents shows that the basic characteristics of the network remain. In the case of large retail, those who have not answered the survey but were included as contacts by those responding to it, occupied a peripheral position in the network and do not seem to alter the basic structure and the characteristics of the network.

Event attendance, form of interaction and main challenges for coordinating

In this project, the events refer to any significant development for wage-setting in a given sector, in the period under consideration, involving more than two actors, and with a direct influence / impact on wage setting in this sector. In the case of large retail in Spain, events referring to the negotiation of the last sectoral collective agreement were considered. Negotiations for this agreement started officially in January 2017 with the creation of the bargaining table and ended in May 2017 with the signature of a new collective agreement until 2020. In the five-month period that negotiations lasted, several events (including meetings, creation of union platforms for negotiations etc.) occurred. Given the fragmentation on the union side with four trade unions, events aiming at reaching a common position among unions were particularly relevant provided the history of conflicts and rivalries between them. As a matter of fact, the interview with a representative of the important trade union in the retail sector, revealed the importance of these events, and pointed to them as the key to unlock negotiations. The other events included in the questionnaire consisted of official meetings between unions and employers in the context of the re-negotiation of the collective agreement.

In the case of large retail in Spain, the mean of event attendance is almost seven. This means that actors involved in the collective bargaining process attended most of the events related to the negotiation. As a matter of fact, the relative attendance in the case of large retail in Spain is almost 85% (meaning that each actor has attended, on average, 85% of the events included in the survey). That shows a high level of commitment of those involved in the process, even of those with a political role in the bargaining process or with more influence. Moreover, even though event attendance does not necessarily mean higher influence, in the case of Spain, given the low levels of rotation among those involved in negotiations, there is a relationship between the degree of attendance and perceived influence.

The dominant form of interactions during the bargaining process in large retail in Spain, consisted of multilateral meetings, either formal or informal. The exploratory interviews revealed the importance of trust building process amongst actors, particularly in the union side, due to the confrontation experienced in previous processes of negotiation. Those interviewed highlighted the importance of sharing information and reaching common positions within all union actors involved in order to avoid misunderstandings and false expectations.

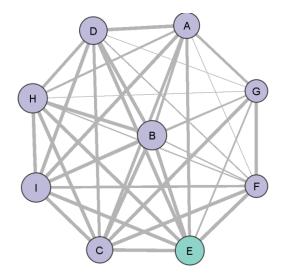
When asked about the main challenges social partners face in order to reach an agreement and coordinate their actions, the actors surveyed point to the economic context as the main problem, followed by power imbalances between unions and employers.

Surprisingly, fragmentation on the union side does not come out as the most important challenge for coordination in the large retail sector. This could be explained by the specific context of the last round of negotiations of the sectoral collective agreement, where all trade union represented in the bargaining table made an effort to overcome their differences and agree on a collective agreement.

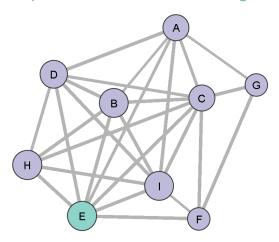
Contact networks

The first element of a relational approach to the analysis of collective bargaining consists in looking at the links between actors in the network. This is what we call contact networks. Contact networks can be explored either by considering all frequencies of contact, with 8 average number of ties with other actors (Graph 8), or by establishing a minimum threshold of contact (e.g. removing links ≤ 5 in a scale from 0 = never to 8 = very frequently), reducing the number of ties to 5.8 (Graph 9).

Graph 8. Contact networks in Large Retail (all frequencies of contact included)



Graph 9. Contact networks in the Large Retail sector

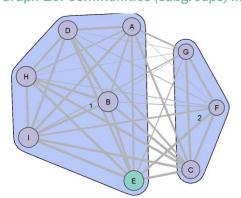


Source: NETWIR project Survey

A first aspect coming out from the analysis of contact networks is that all actors in the large retail sector in Spain have links with the other actors in the networks. This is what we call density of contacts, i.e., the number of edges (an edge is a tie between two actors of any frequency –i.e., any value excluding 0) divided by the maximum possible provided the number of actors. The index reaches a maximum of 1 when every actor is tied to each other. This is coherent with event attendance data, that showed a high level for actors in large retail in Spain.

Moreover, the contact network for large retail in Spain is also characterised by being very decentralised. The degree centralization is a measure of how centralised a network in relation to the maximum attained degree is. The index reaches a maximum of 1 when a single actor is tied to each other, and the others are only tied with the former (thus, indicating a maximum centralization). The index attains a minimum value of 0 when all actors have the same degree (thus, indicating minimum centralization). During the bargaining round, all actors have maintained contacts with the rest of actors in the network, without any of them playing a particularly salient role during the bargaining round. This is consistent with the idea transmitted by one of the interviewees from the largest trade union in the sector, that in its aim to make all trade unions sign the agreement, tried to avoid any saliency during the negotiation by having a similar number of representatives in the bargaining table. Minimum centralization can also indicate dispersed power in the network, which is also in line with the objective of involving all trade unions in the negotiation process and build trust with them.

The analysis of ties within the large retail network also shows a high density of relations among those actors in the network. In a bargaining process, building trust is key in order to reach an agreement. Among other things, trust building in the process depends on all actors sharing information and having (frequent) contacts. For this reason, we have computed the average ties strength, a measure that takes into account the weight of each tie (from 0 to 8). It is the total of all values divided by the number of possible ties and can be interpreted as a measure of density that takes into account the weight of each tie. The large retail in Spain has a high average ties strength, thus pointing to a dense network whose actors have been involved at all stages of the negotiation process. That density remains even when we consider non-respondents. All non respondents (except one) had at least 4 contacts with different respondents of the network, therefore confirming a very dense, highly cohesive contact network.



Graph 10. Communities (subgroups) in the contact network

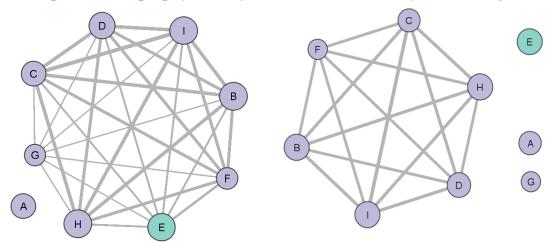
Source: NETWIR project Survey

The analysis of subgroups within the network shows two of them (see graph 10). Due to the existence of a single employer, the subgroups identified do not correspond to the two sides of the industry. The first if composed by trade unions and employers. The second, is composed by members of the same trade union. This second subgroup might respond to the need to coordinate within the trade union a common strategy in relation to the negotiation of the agreement.

Co-attendance Networks

While contact networks report information on direct, interpersonal relationships among actors in wage setting processes, co-attendance networks report if each pair of actors are close because they attended the same type of events. As any pair of actors can have relationships outside the wage setting process, frequency of contact and event co-attendance are two indicators that provide slightly different information. Frequency of contact simply reports how often those two actors interact, both outside and within the bargaining process. Event co-attendance on the other side refers to the coincidence of two actors in the same event in the context of the bargaining process.

Graph 11. Co-attendance networks from affiliation dat. Left graph corresponds to complete view, weighted data. Right graph corresponds to reduced view, simplified & binary data.



Source: NETWIR project Survey

The co-attendance graphs (see graph 11) shows a symmetric picture, where all actors (with the exception of A; but there are other actors from the same organization like A that are already in the network) have attended events during the negotiation process with all the other actors in the network. This result is line with the high density of relations observed before and the importance of formal events (formal meetings in the context of the negotiation of the collective agreement) in the bargaining process.

5. SECTORAL COMPARISON

The two sectors compared in this report share some structural similarities, including the importance of large multinational companies, but their analysis has revealed significant

differences in terms of collective bargaining processes, bargaining networks, and the interactions between unions and employers.

The Chemical-pharmaceutical and Large retail sectors count with bigger companies than national average, that contribute highly to the GDP and employment of Spain. However, working conditions and quality of employment are different: both sectors have high rates of permanent contracts, but there are much higher salaries and higher rates of full-timers in the chemical-pharmaceutical sector. This is somehow due to the type of activity developed, the average workforce skills and the market exposure.

With regard to the collective bargaining process, there are also certain similarities, especially in the relevance of consolidated sectoral bargaining processes at the national level. Both sectors have national agreements that provide a framework to regulate and/or guide lower-scale agreements. However, while the coordination of collective bargaining in the retail sector is fragmented (separate processes for small and large retailers), the chemical and pharmaceutical sectors are unified.

In this way, a single EO directly represents the largest retail companies in the CB process, while a multitude of EOs of different subsectors together with some large companies participate directly in the negotiation process of the chemical sector, although represented by the main EO of the sector. The trade union landscape is also fragmented in the Large retail sector, with an independent union being the most representative in the sector and important differences in the union side, while the two largest trade unions in Spain are also the most representative in the chemical sector and have similar views and strategies in relation to collective bargaining in the sector.

The analysis of dominant forms of interactions during the bargaining process reveals similar patterns in the two sectors, with an important role of multilateral meetings, either formal or informal. However, informal interactions play a more important role in the chemical sector due to the long record of cooperative relations between unions and employers in the sector, that allows actors to begin formal bargaining processes with better knowledge about each organization's position. In the large retail sector, trust building process amongst actors are relevant, particularly in the union side, due to the confrontation experienced in previous processes of negotiation.

Trust building processes have a reflection in the shape and characteristics of networks in the two sectors: all actors in the large retail sector have links with the other actors in the network (high density of contacts), being the network very decentralised, indicating dispersed power in the network but also showing the lack of participation in multilateral meetings of members of the EO itself, being external advisers practically the only interlocutors with unions. On the contrary, the already established trust within chemical sector network allows that negotiation process proceed without notable conflicts through the formal events, although the better coordination of the employer side at national level have effect on more frequent and established (formal and informal) relations between its actors than union actors more fragmented territorially and organizationally.

6. CONCLUSIONS

This report offers the first study to date of collective bargaining processes adopting a relational perspective through the use of Social Network Analysis methodologies in Spain. The analysis of bargaining networks in the Chemical-pharmaceutical and Large retail sectors, allows to attain a better understanding of how collective bargaining coordination is achieved whilst providing a first evaluation of the potential of social network analysis to analyse collective bargaining.

The comparative analysis of bargaining processes in the two sectors reveals how successful collective bargaining processes are not alike. Though in the two cases negotiations accomplished their objectives and delivered an agreement, they diverged significantly as to how this was achieved, and more specifically, in the methods to build and maintain trust, shared beliefs and power (Öberg et al. 2002). In some cases, actors can initially hold same opinion on key matters, allowing direct negotiations on potentially conflictual issues that can be solved through alternative/informal mechanisms between organizations and the intervention of those actors who concentrates more power within their organizations, but also being well connected with opposed organizations. That is mainly the case of the chemical collective bargaining process in Spain. In other cases, the lack of shared beliefs is solved through network building processes to raise closeness. That may allow the emergence of trustful relations, reducing both uncertainty and information asymmetries in the interactions between actors (Coleman 1988). That may well describe Large retail bargaining process case.

Being the first explorative attempt at analysing collective bargaining processes using social network analysis in Spain, the results already suggest the large potential of this methodology for better understanding collective bargaining. More specifically, using the relational approach to negotiation processes and the analysis of bargaining networks, helps to shed light into the processes underpinning coordination, the mechanisms sustaining trust and the different forms of interaction that occur in bargaining processes. The potential of this relational approach for the study of collective bargaining, through the use of social network methodology to the study of coordination results, trust and power relations between actors can potentially the knowledge about collective bargaining coordination in Spain in many ways: helping to understand which are the mechanisms sustaining coordination (trust, shared beliefs or power), and how far these mechanisms or the existence of peak cross sectoral agreements governing and coordinating collective bargaining, that characterized Spanish industrial relations system, is a determining factor.

One of the important messages coming out from the analysis presented in this report is the need to look more closely at the informal mechanisms sustaining bargaining processes. These informal, 'coffee and cigarette' processes are very often key to overcome a deadlock in negotiations. Therefore, proper consideration is required in order to understand how coordination is actually happening. Moreover, the relational approach to collective bargaining also provides empirical evidence to understand how trust is built and maintained within bargaining networks.

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