



D12.5.5 Exploitation strategies for the Spanish legal market

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Abstract

This deliverable describes results from market research in Spanish law firms, including an overview of competitor's analysis and a definition of the requirements and functionalities of the proposed product. Market analysis covers both statistic analysis from external sources and qualitative data from fieldwork research developed within the framework of the SEKT project (forty in-depth interviews with lawyers in large, medium, and small law firms). The results show that there is an emerging market for Semantic Web technology in the legal domain, notably in the areas of e-mail management (i. e. intelligent search, inbound business scan, outbound content compliance). Despite the competition being fierce in the e-mail management marketplace, the need for intelligent search and content compliance beyond current archiving methods also reveals a clear opportunity to exploit SEKT technologies commercially.

Keyword list: market analysis, legal markets, commercial exploitation, semantic web technologies, e-mail management

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Executive Summary

This report describes the steps towards the development of a product based on SEKT technology to assist legal service providers in the area of e-mail management. As the report highlights, previous market research has shown that there is an emerging market for Semantic Web technologies in the legal domain. Section 1 provides therefore an introduction to the motivation, target market, and the product to be developed. Section 2 describes results from market research in Spanish law firms (data are obtained from extended quantitative surveys carried out by different institutions). These data help to calibrate at the national level which are the most frequent IT uses among the legal profession. To obtain more insightful results at the qualitative level, Section 3 provides the results of fieldwork done in the period 2005-2006 within the SEKT framework (SEKT survey). The SEKT survey consists of 40 in-depth interviews with lawyers in law firms located in Barcelona and its metropolitan area. One of the first conclusions that may be drawn from both general data and the SEKT survey is that the unprecedented issue that law firms seem to face in the immediate future is related to e-mail rather than to legal information retrieval.

Section 4 of the report offers a description of the proposed product, including its main requirements and functionalities. Section 5 includes an overview of competitors and, finally, Section 6 provides some reflections on opportunities of this exploitation strategy. The main conclusion drawn from those reflections is that there seems to be a clear opportunity for more intelligent solutions for managing e-mail in the legal sector than those that vendors are currently marketing. In this regard, the solution envisaged understands the e-mail content in a legal context and provides added value by automatically linking the e-mails to relevant external legal information sources.

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1 Introduction

1.1 Motivation

Previous market research has shown that there is an emerging market for Semantic Web technologies. In particular, the Ovum report commissioned by the SEKT Consortium identifies a number of significant opportunities for exploitation of SEKT technology, such as “enhanced search facilities, improved tagging and classification tools, and improved taxonomy tools.” As the report follows, “other areas include ontology management tools where ontologies are expressly recognized as providing additional value, and intelligent alerting tools that can automatically provide users with relevant information based on user profiles” [1].

The products/solutions that could emerge from commercial exploitation of these tools are largely applicable to the legal domain, an attractive niche with a growing and compelling need for instantaneous access, classification, and retrieval of data and information contained in both electronic files and in the Internet at large. Furthermore, in the new compliance era legal services providers must adhere to regulatory government measures applicable to their client base (i.e. EU privacy laws, UK Financial Services and Markets Act, Sarbanes-Oxley Act, U.S. Safe Harbor, etc.) and corporate governance requirements ensuring due diligence, security of electronic communications, outbound content compliance, etc. Despite fierce competition in the marketplace, there is an opportunity for proactive compliance tools that allow automation of governance processes. In this regard, SEKT technologies have a large potential upside.

1.2 The target market

The exploitation strategy adopted here addresses the Spanish legal market, which has been defined as “one of the sturdiest” legal markets in Europe over the past few years [2]. Section 2 contains a detailed description of the most relevant features of this marketplace. Subsection 2.1 focuses on demographic and statistical data obtained from external sources, while subsection 2.2 reviews the results obtained through fieldwork done in Spanish law firms (interviews with forty lawyers). Finally, Subsection 2.3 provides relevant conclusions to be considered as guidelines for product development.

1.3 The product

The product described in Section 4 is aimed at addressing one of the most challenging issues that law firms are currently facing: e-mail management. Although the market of e-mail management vendors, as we shall see, is burgeoning of different solutions, it is still in a juvenile state as regards vertical markets such as the legal services. We therefore estimate that there is an opportunity to develop a specific product for the legal domain.

2 The Spanish Legal Market

2.1 General trends

In recent years, the Spanish legal market has emerged as one of the most expansive in Europe. Despite growing competition and ongoing influx of US and UK firms in the domestic market, annual turnover of law firms has risen up to 63.4 percent in six years (1999-2004). In 2002, the value of the market was 6.4 billion €, which represented more than the South Korean, Chinese, and Japan markets altogether.

Country	Value in 2003	Growth 2002-03	Expected value in 2008
USA	140,3 billion	5,6 percent	174.1 billion
UK	28 billion	3,6 percent	31,6 billion
France	14,7 billion	14 percent	16,7 billion
Spain*	6.4 billion	3,5 percent**	
Australia	5,9 billion	11.6 percent	9,4 billion
South Korea	1,35 billion	-3.3 percent	1.7 billion
China	1.34 billion	7 percent	1.9 billion
Japan	0.9 billion	8 percent	1.6 billion

* Value in 2002 ** Growth 2001-2002

Source: Euromonitor and INE

Figure 2.1: Legal markets sizes [3] [4]

The value of the Spanish legal market has been trending upwards over the past decade. If we consider Spanish law and auditing firms altogether, as more recent data do, the market value for both rose up to 19.5 billion € in 2004.

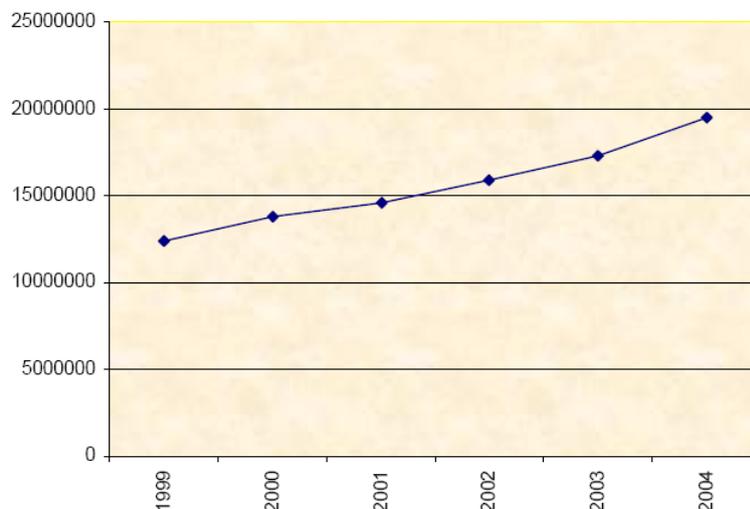


Figure 2.2: Market value of Spanish law and auditing firms [4]

Apart from having proved its robustness as regards economic growth, the Spanish legal market has at least four dimensions to highlight:

- Booming of lawyers. The number of practicing lawyers in Spain has been constantly increasing since the beginning of the 1980s, rising particularly sharply throughout the 1990s. One explanation for this rise is that law practice in Spain requires no further examinations after graduation in law schools, so that roughly 15,000 yearly graduates in law may start practicing law as soon as they complete their degrees.¹

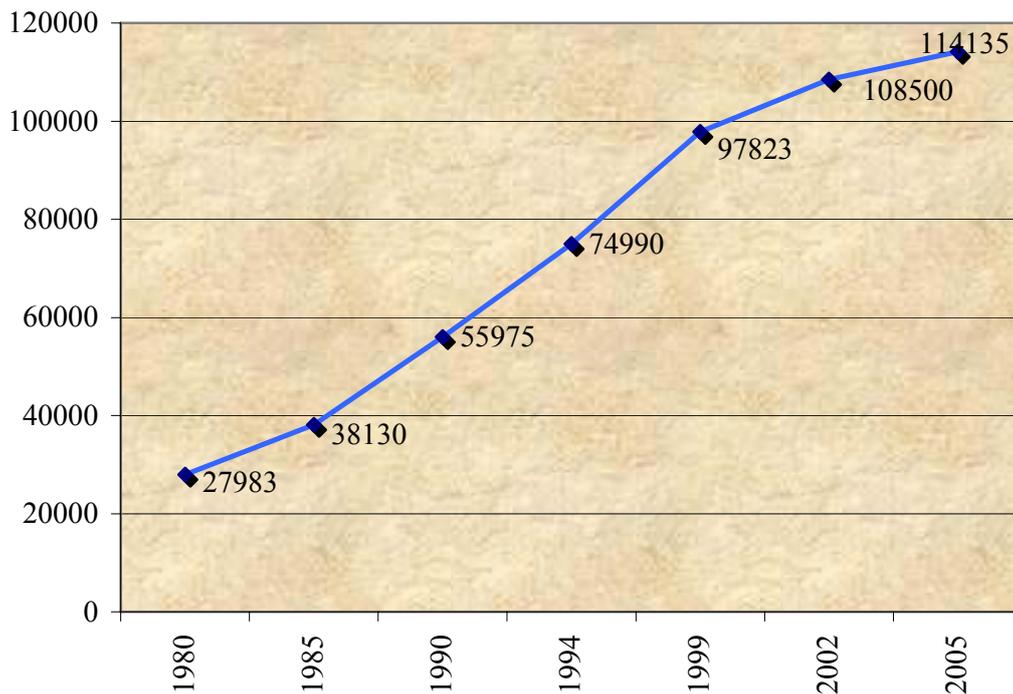


Figure 2.3: Practicing lawyers in Spain (1980-2005) [6]

Comparing the previous figure with those in other European countries, Spain clearly ranks first, both in absolute and relative terms. Thus, in 2004 Spain had 146,214 lawyers registered in bar associations either as practicing or non-practicing lawyers. Only Italy, Germany, and the UK have figures over 100,000 lawyers, but the last two countries include solicitors (legal advisers) in their total figures. In the graphs below the total number of lawyers and of lawyers per 100,000 inhabitants per country are provided.

¹ This situation, however, is recently changed by the 34/2006 Act of Access to the Profession of Lawyer that requires law graduates and additional period of training in professional schools and to pass a state examination. The legislation, nevertheless, establishes a transitional period of five years, so that it will have no effect until 2010.

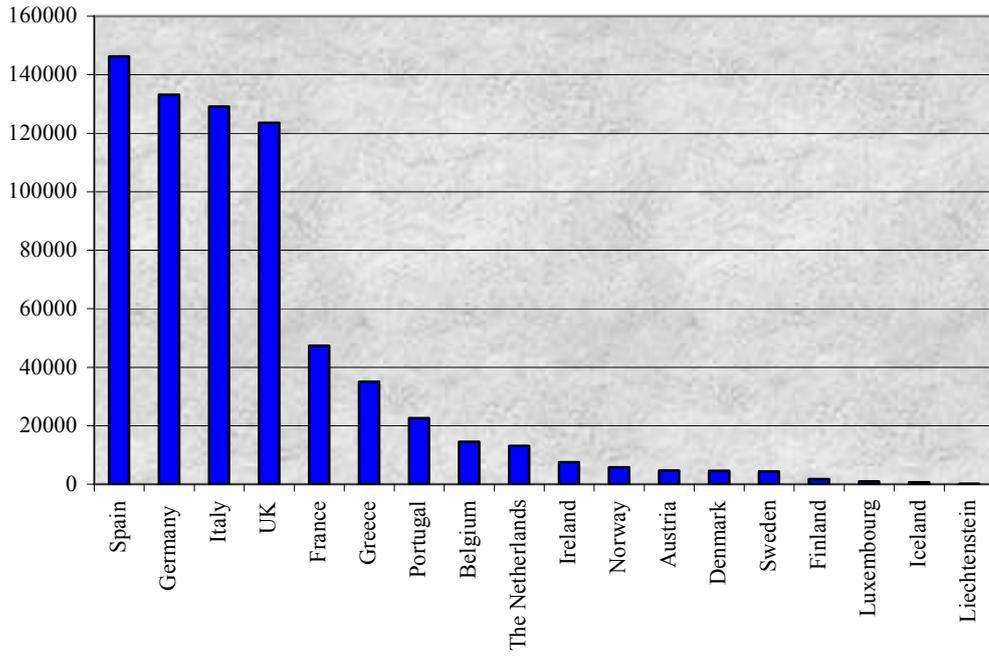


Figure 2.4: Lawyers in Europe (2005) [7]

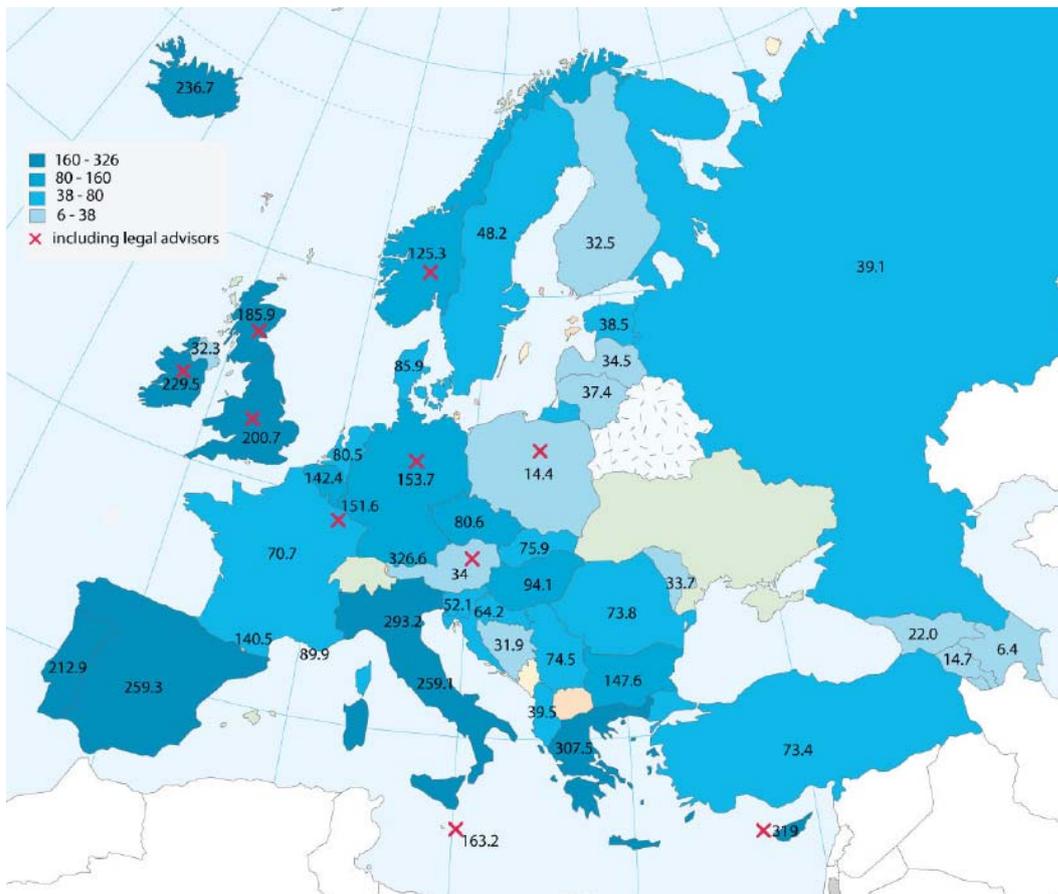


Figure 2.5: Lawyers per 100,000 inhabitants per country (2004) [8]

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There are countries for which the total number of lawyers per 100,000 inhabitants is high: this is certainly the case of Spain, Greece, Ireland, Iceland, Italy, Liechtenstein, Luxembourg, Portugal, Spain, UK-England and Wales.

- Diversified market structure. Despite the traditional predominance of solo practitioners, the market has undergone profound changes. On the one hand, formal and informal networks of lawyers in medium and small size firms are becoming more frequent. On the other hand, the influx of multinational law firms has contributed to create an elite of firms mainly specialized in commercial/tax/corporate law that provide legal services to the Spanish biggest corporations, which also have grown transnationally and have to face demands of legal services in other countries.

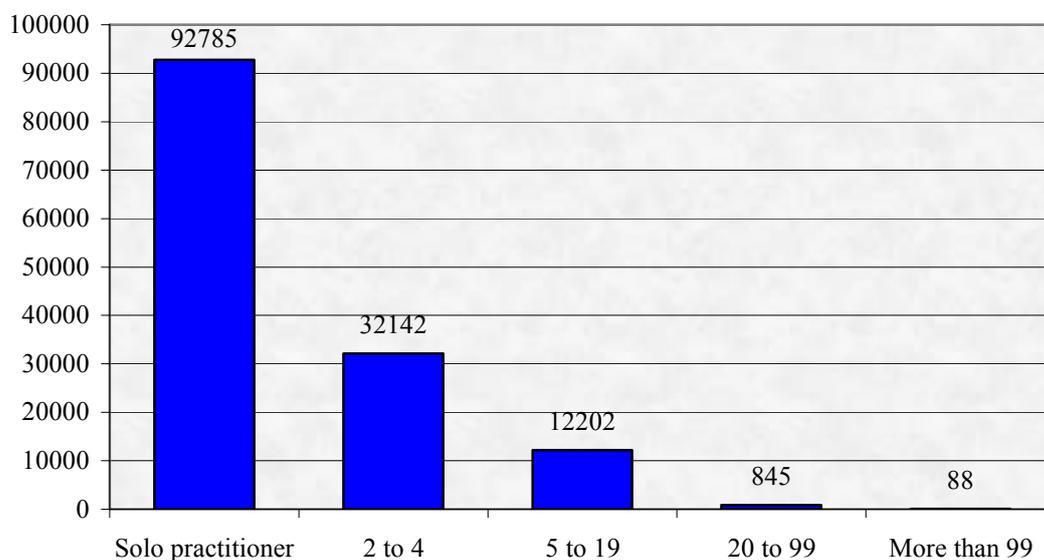


Figure 2.6: Market structure of Spanish law and auditing firms (2005) [4]

	Abogados	Centros	Abog./Centro
Madrid	22,126	10,355	2.14
Cataluña	15,524	7,162	2.17
Andalucía	13,562	7,168	1.89
Valencia	8,900	4,622	1.93
Norte	8,142	4,028	2.02
Centro Norte	6,505	3,922	1.66
Centro Sur	5,178	3,227	1.60
Galicia	4,740	2,484	1.91
Canarias	3,136	1,795	1.75
Baleares	1,802	847	2.13
TOTAL	89,615	45,610	1.96

Figure 2.7: Average size of Spanish law firms by area (2005) [5]

- Segmentation of legal services. Legal services in Spain largely depend on the market structure. Thus, solo practitioners tend to offer general legal services to individual clients, while large law firms exclusively provide services to companies, offering highly specialized counseling. Between these two poles, mid-sized law firms have both individuals and small or mid-sized companies as clients in their portfolios. In some cases, they also offer specialized services such as labor law, criminal law or urbanism.
- Internationalization. The period from the 1970s to the 1990s saw the emergence of what different authors referred to as the “legal big bang” [9]. The opening up of international capital movements, the increased trading in currencies, and the expansion of financial instruments created new opportunities for law firms both in the US and Europe. Spanish law firms have recently incorporated to the internationalization trend, joining other Us, UK o German firms in serving their multinational clients or venturing themselves abroad [10]. One recent example is the opening of a Garrigues office in Shangai [11].² Nevertheless, it is most usual that Spanish firms, driven by cultural ties, establish links with Portuguese and Latin American firms.

2.2 Lawyers and technology uses

In a 2005 survey to assess Spanish lawyers’ use of technologies, 98 percent of them considered that technologies were a key component in their daily practice [12]. These and other previous data [5][13] should allow us, as IT uses concerns, to put aside the traditional image of lawyers as being technophobes or simply lagging behind other professional groups. On the contrary, lawyers and legal advisors rank second in both use of PC and the Internet, as show below:



Figure 2.8: Lawyers and legal advisers’ use of PC (2004) [13]

² Garrigues is one of the Spanish largest firms and ranked Tax Firm of the Year in Spain and Portugal, according to 'World Tax 2007'.

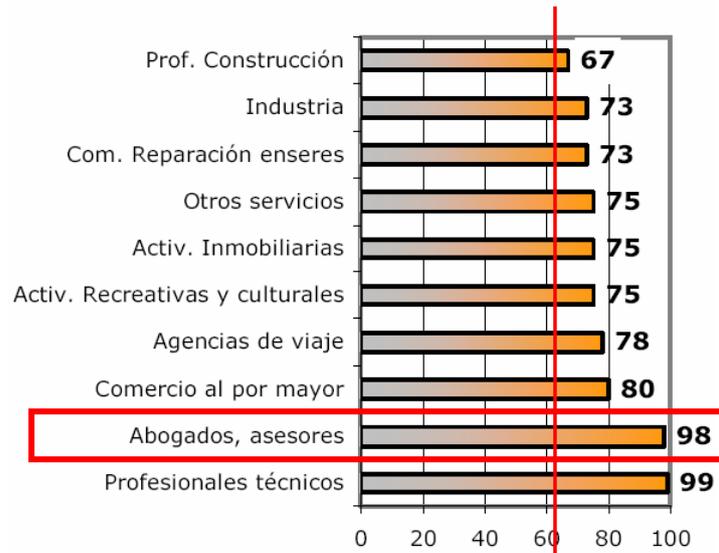


Figure 2.9: Lawyers and legal advisers' Internet use (2004) [13]

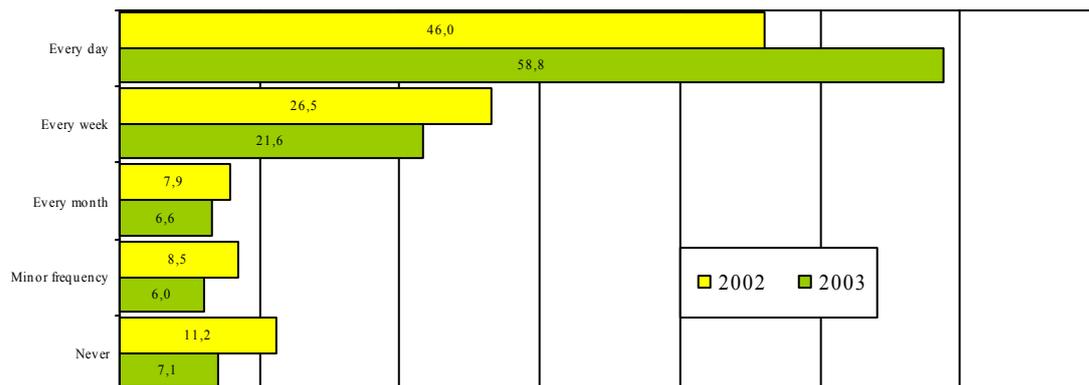


Figure 2.10: Lawyers' Internet use frequency (2002-2003) [5]

If we take into account the rapid growth of Internet users in Spain since the last quarter of 2003 (14 percent between December 2003 and December 2005),³ the equivalent figures for lawyers would also need to be constantly updated, especially concerning frequencies of use (see chapter 3 of this report covering the results of the SEKT 2006 survey). In any case, it can be safely stated from the existing surveys that lawyers have become successful users of the Internet in their daily work, especially if compared with Spanish judges.

³ At the end of 2005 there were 17.7 million of Internet users in Spain, which represents 48.8 percent of the Spanish population [14].

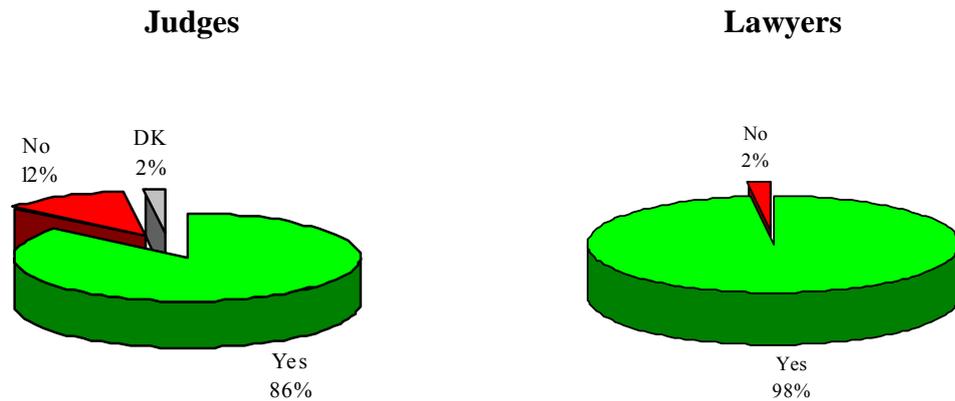


Figure 2.11: Judges' and lawyers' use of the Internet [5] [15]

Considering the most frequent Internet uses, data from 2002-2003 provide the following preferences:

Use	2002	2003
	(%)	(%)
General queries	32,5	32,5
Jurisprudence queries	28,5	29,9
Legislation queries	28,2	25,8
E-mail	19,6	21,9
Queries to other organizations	14,6	14,8
Official journal queries	7,6	10,3
Registry queries	6,0	5,9
News	3,1	2,5
Banks	1,7	1,7
Database updating	0,9	1,4
Queries about companies	2,1	1,3
Queries to legal publishers	0,7	1,0
Taxes queries	0,5	0,9
Certificates and forms	-	0,8
Foros	0,2	0,7
Queries on statistics	1,6	0,6
Debate sites	1,2	0,2
Stock markets	0,2	0,2
Other queries	9,1	0,4
Other answers	5,0	5,3
DK/DA	2,2	3,8

Figure 2.12: Most frequent Internet uses [5]

Site	2002	2003
	(%)	(%)
Official Journal of the State (BOE)	13,5	16,3
Public bodies	18,0	14,5
Bar Associations	17,7	13,4
Jurisprudence sites	6,9	8,4
Aranzadi-Westlaw	8,6	7,3
Ministry of Economy	8,6	6,4
Google	3,9	6,4
La Ley (legal database)	6,8	6,1
Autonomous Governments	6,0	4,9
El Derecho (legal database)	4,9	4,7
Commercial Registry	5,5	4,2
Journals	1,5	3,8
Social Security	3,8	3,7
Official Journals Autonom. Communit.	4,0	1,7
Banks	1,5	1,7
Lex Nova (legal database)	2,2	1,2
Official Journals of Provinces	1,3	1,2
Governing bodies of provinces	1,1	1,1
City Councils	1,6	0,8
Official Journal Commercial Registry	0,4	0,7
Bosch (legal publisher)	1,1	0,6
Jurisweb	1,2	0,5
Associations	0,5	0,4
Vlex (legal database)	-	0,4

Figure 2.13: Most frequent visited Internet web pages [5]

	Total lawyers (percentages)	Professional experience		
		Up to 10 years	10-20 years	More than 20 years
E-mail	93	95	93	88
Legal Databases	93	94	94	89
Office programs (text processors, etc.)	90	92	90	84
Broadband Internet access	86	89	85	81
E-government applications	57	61	57	49
Case management software	43	44	43	39
Modem Internet access	29	27	31	31

Figure 2.14: IT uses among Spanish lawyers (2005) [12]

As the figures above show, the two main uses of the Internet among lawyers are searches (either in general or legal searches) and e-mail. As regards searches, legal databases (Aranzadi-Westlaw, El Derecho, Lex Nova or Vlex) and Google are the most popular tools. The SEKT survey also confirms the combination of legal databases and Google to do legal queries. Considering e-mail use, data show that it has become the standard way of communication for lawyers, at the expense of fax or written letters,

especially when exchanging documents of all sorts (drafts, templates, proposals, clauses, contracts, etc.).

2.3 Preliminary conclusions

One of the first conclusions that may be drawn from these results is that the unprecedented issue that law firms seem to face in the immediate future is related to e-mail rather than to legal information retrieval. While lawyers are reasonably knowledgeable—as well as satisfied—with the existing databases in the legal marketplace, there are no equivalent solutions on how to access, manage, retrieve, and ensure the integrity of an ever growing volume of internal and external e-mail communication. Law firms such as Freshfields Bruckhaus Deringer (2,400 lawyers in 18 jurisdictions) have reported to send and receive more than 1.75 million emails in a typical month [16]. It therefore comes as no surprise the following diagnosis:

Email is pervasively the client communication standard for law firms and professional services firms, often in conjunction with collaborative extranets housing consolidated billing and matter status information. Email is frequently the de facto workflow vehicle for document revision, with versions sent for review to progress contracts, briefs and agreements to a state of acceptance and completion. In addition to the inherent confusion that can ensue with lax content process control, firms must operate in compliance with guidelines that address new business intake, from government mandates (USA PATRIOT Act, UK Financial Services and Markets Act, EU Privacy Laws, U.S. Safe Harbor) to due diligence in conflict of interest research [17].⁴

Use of e-mail services, as well as PDAs, Blackberries and other wireless devices, has become ubiquitous in the legal profession. The sections that follow will provide an additional basis to consider the development of a product which, based on SEKT technologies, can be able to address the needs of lawyers in terms of intelligent search, management, and content compliance of e-mail communication flows.

⁴ In addition to these pieces of legislation, and following a series of corporate scandals in 2002 (namely the Enron case) the U.S Congress adopted the Sarbanes-Oxley Act, which, among many other things, requires companies listed on US stock exchanges to comply with governance rules regarding confidential information. This requirement applies to European companies whose shares are traded in US stocks exchanges, and also applies to European subsidiaries of US companies listed on US stock exchanges.

3 The SEKT survey

In 2005-2006 the UAB team conducted a survey of 40 lawyers in law firms located in Barcelona and its metropolitan area. Neither the sample size nor its demographic distribution intended to qualify as statistically valid. Rather, the main aim of the survey was to identify through fieldwork research the most frequent IT uses and needs of lawyers working in small, medium-sized, and large law firms. The survey therefore consisted in 35 in-depth, semi-structured interviews and 5 informal interviews with lawyers, covering aspects such as profile of the lawyer, profile of the firm, type of work, and IT uses and needs (see survey form in Annex). The interviews typically consisted in a one-hour interaction between the researcher and the lawyer/s of the law firm. The sample of lawyers to be interviewed was elaborated with the help of previous institutional contacts between the IDT-UAB, the UAB Law School, and law firms themselves.

3.1 Demographics

3.1.1 Type of organization

As figure 3.1 shows, the majority of law firms of the survey have a medium size (53.8 percent of the total). Medium law firms average 25 senior/associate lawyers. It follows large law firms (33.3 percent) and solo practitioners (12.8 percent).

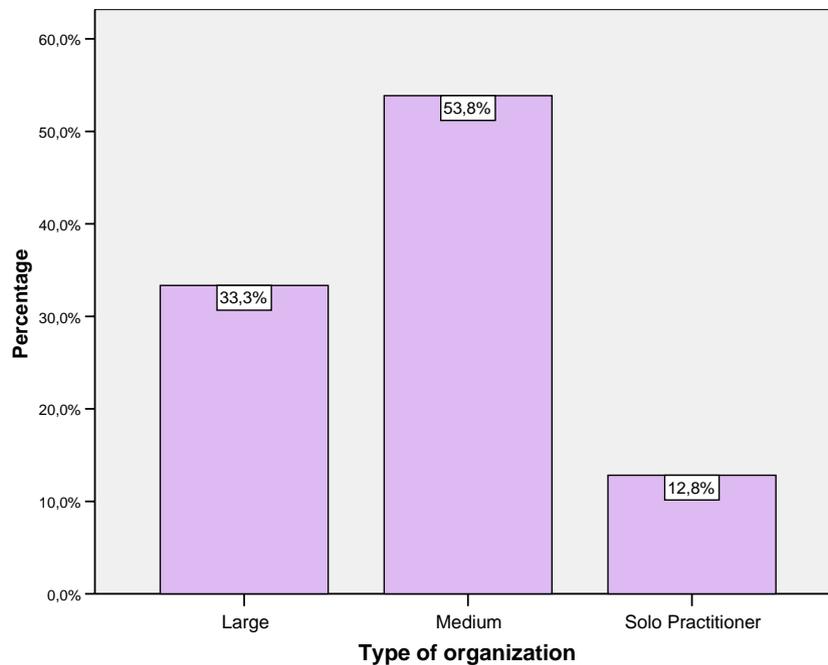


Figure 3.1: Type of organization

3.1.2 Number of professionals

If we look at the number of professionals, law firms surveyed mainly employ senior/associate lawyers (mean of 71.8), as figure 3.2. shows. It follows administrative personnel (mean of 7.7), and lawyers on apprenticeship (mean of 4.6). Economists, engineers, other graduates, and other personnel complete the type of professionals working on law firms, although in a much less significant number.

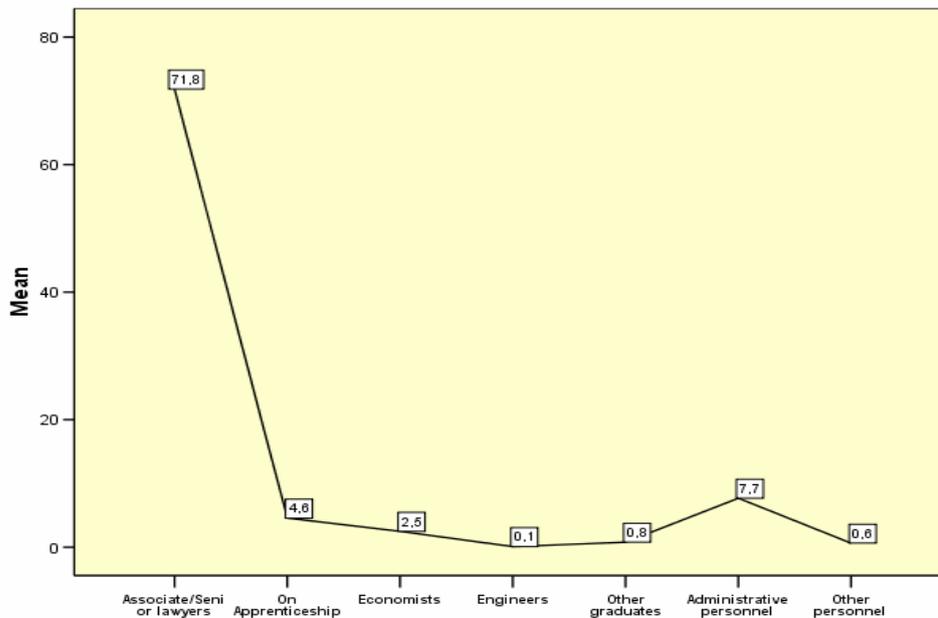


Figure 3.2: Number of professionals (arithmetic mean)

Since the mean has been calculated including all type of organizations (large, medium, and solo practitioners), we performed further analysis to make sure that the difference in size did not distort the significance of the mean (see standard deviation, figure 3.3). The data matrix was segmented regarding the size of the organizations, and the results are shown in figure 3.4.

	N	Minimum	Maximum	Amount	Mean	Std. deviation
Associate/Senior lawyers	39	1	700	2802	71,85	136,281
On Apprenticeship	39	0	120	178	4,56	19,150
Economists	39	0	40	97	2,49	7,097
Engineers	39	0	3	4	,10	,502
Other graduates	39	0	5	31	,79	1,281
Administrative personnel	39	0	40	300	7,69	11,624
Other personnel	39	0	3	25	,64	1,088
N of valid cases	39					

Figure 3.3: Number of professionals, frequency table

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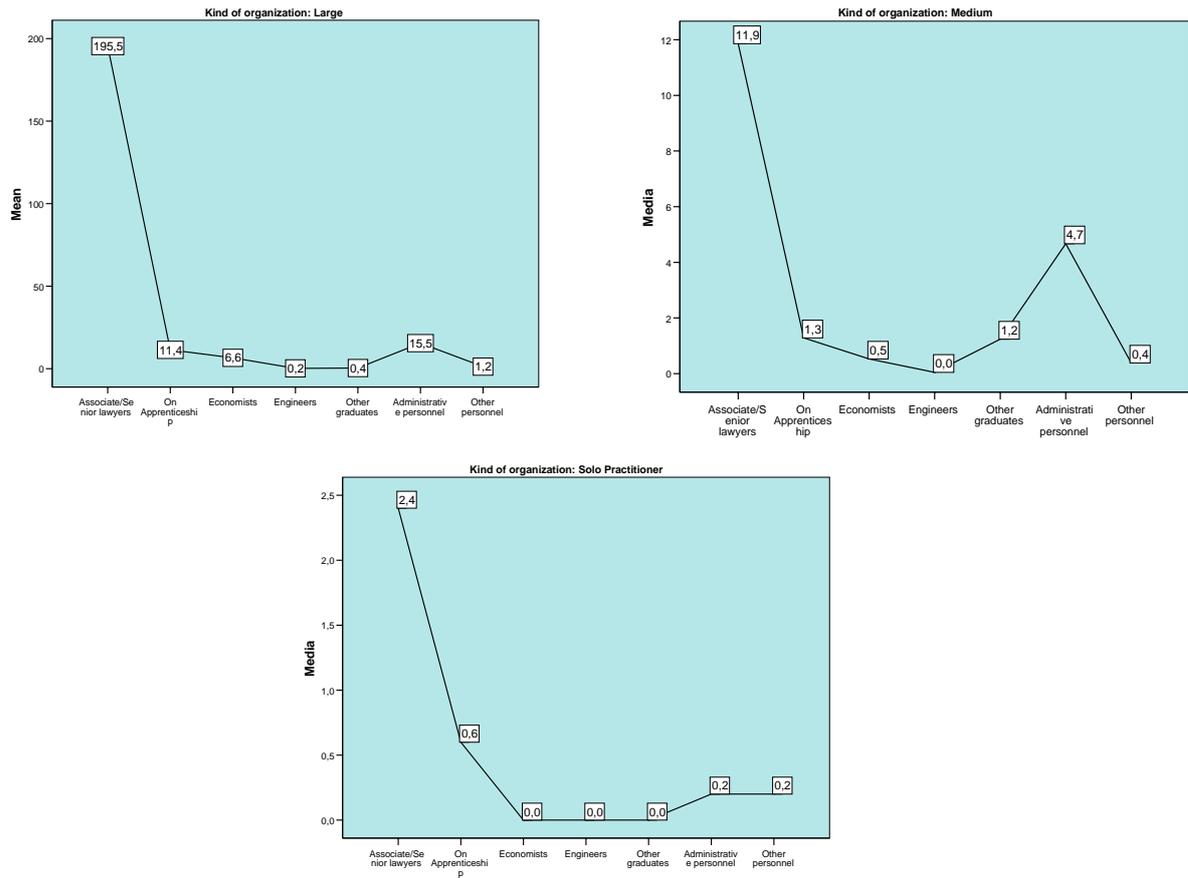


Figure 3.4: Number of professionals, segmented by type of organization (large, medium, and solo practitioner)

3.1.3 Specialty

The lawyer specialty that predominates is commercial / company / tax law (25.64 percent), followed by knowledge management (20.51 percent) and general and social law (17.95 percent each). Civil law (10.26 percent) and criminal law (7.69 percent) contribute with a lower weight to the total percentage (see figure 3.5a).

More than 20 percent of lawyers specialize in **knowledge management**. If we join this feature to the lack of efficient intelligent search and content compliance beyond current archiving methods, SEKT technologies reveals a clear opportunity to exploit this aspect commercially.

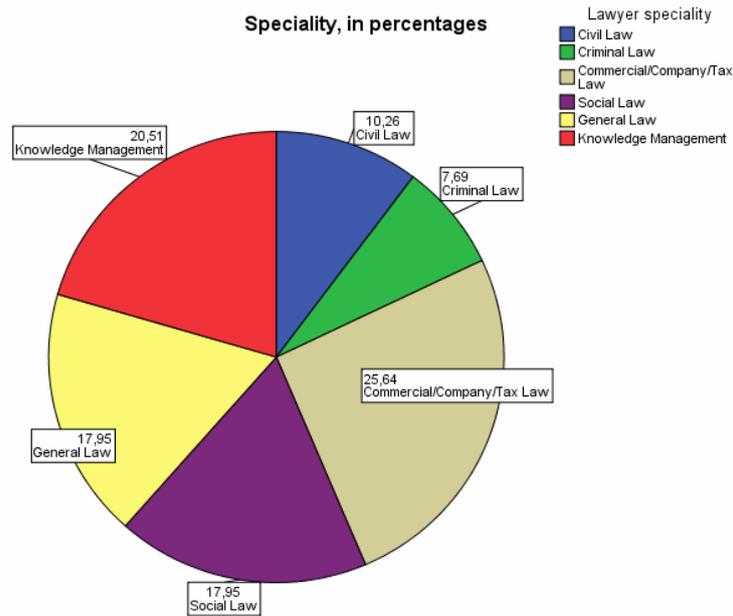


Figure 3.5a: Lawyer specialties, in percentages

Figure 3.5b shows lawyer specialty, by type of organization. Large firms tend to specialize in commercial / company / tax law, whereas medium firms equally deal with social / general law cases and knowledge management. Finally, solo practitioners tend mainly to focus on civil law cases, followed by criminal and social law.

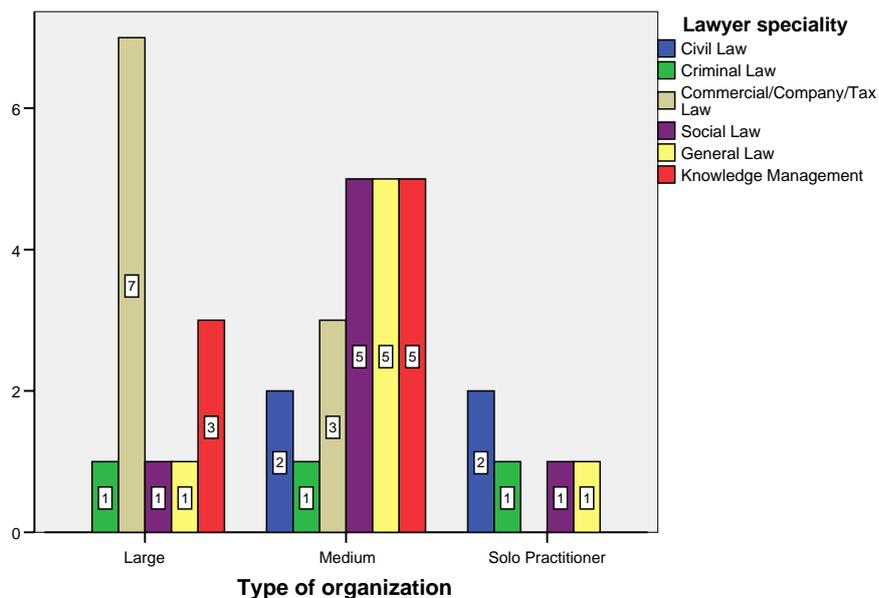


Figure 3.5b Lawyer specialty, regarding type of organization

3.1.4 Litigation level

Whenever possible, many law firms tend to reduce as maximum as possible the litigation levels. There are many reasons for that, one of them being the preference for negotiated agreements rather than submitting a case to courts, which somewhat entails a lose of control over the case (uncertainty about time, outcome, etc.). Thus we find that 2.6 percent of firms surveyed do not have any court activity, 25.6 percent bring to court less than 10 percent of the cases, and a 28.2 percent of law firms litigate from 10 percent to 24 percent of the cases. The percentage is reduced to 10.3 percent considering the range 25 percent-49 percent of the cases, but it increases to a 20.5 percent in the range 50 percent-74 percent of the cases. Only a 7.7 percent of the law firms bring to court more than 75 percent of the cases (figure 3.6).

As shown in figure 3.7, solo practitioners bring to court a higher percentage of cases (from 50 percent to 100 percent of their cases), whereas large firms tend to reduce as maximum as possible the litigation level. The Pearson’s correlation of the variables “part of the working day spent in electronic communication” and “part of the working day spent in litigation” shows a linear relationship between these variables (- 0,486), which means that the higher time lawyers spend on court, the lesser time they spend managing the firm. This conclusion, although rather obvious, might bring to the point that larger and medium-sized firms constitutes a better potential market than the solo practitioners one, since they tend to spend more time managing the firm and therefore using intelligent search archiving methods (see correlation table –figure 3.27- and scatter graph –figure 3.26).

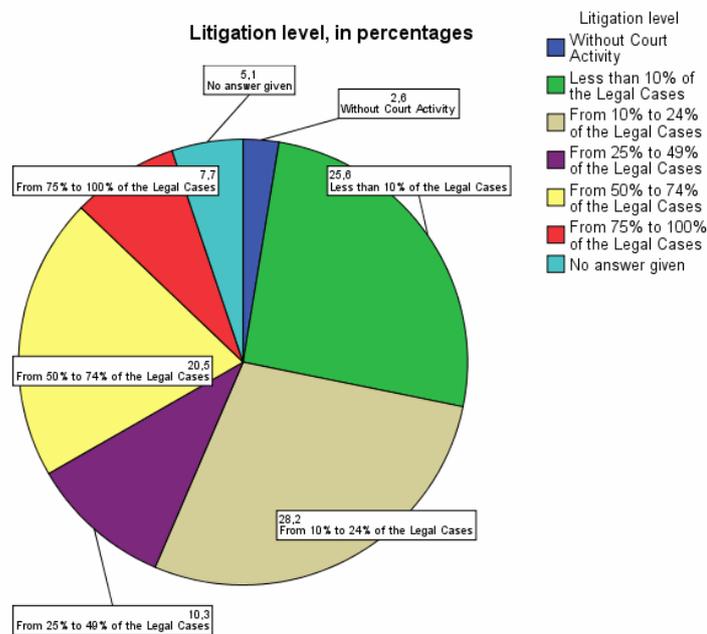


Figure 3.6: Litigation level, in percentages

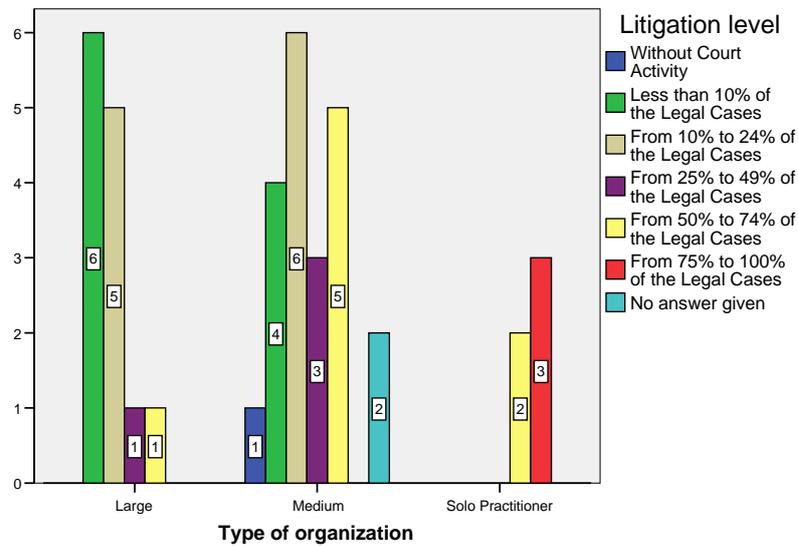


Figure 3.7 Litigation level, regarding type of organization

3.1.5 Working day

Lawyers spend almost one third of their working day (26.27 percent) in front of the computer. This percentage does not include dealing with their e-mail accounts (12.83 percent) and managing the firm (5.73 percent). Meetings with clients (14.07 percent) and with other lawyers (9.27 percent) consume an important share of their working day, as well as talking with them on the phone (7.97 percent with clients, 8.37 percent with lawyers). Finally, the average lawyer spends 10.93 percent of its time in court, and a 4.93 percent performing other tasks (figure 3.8).

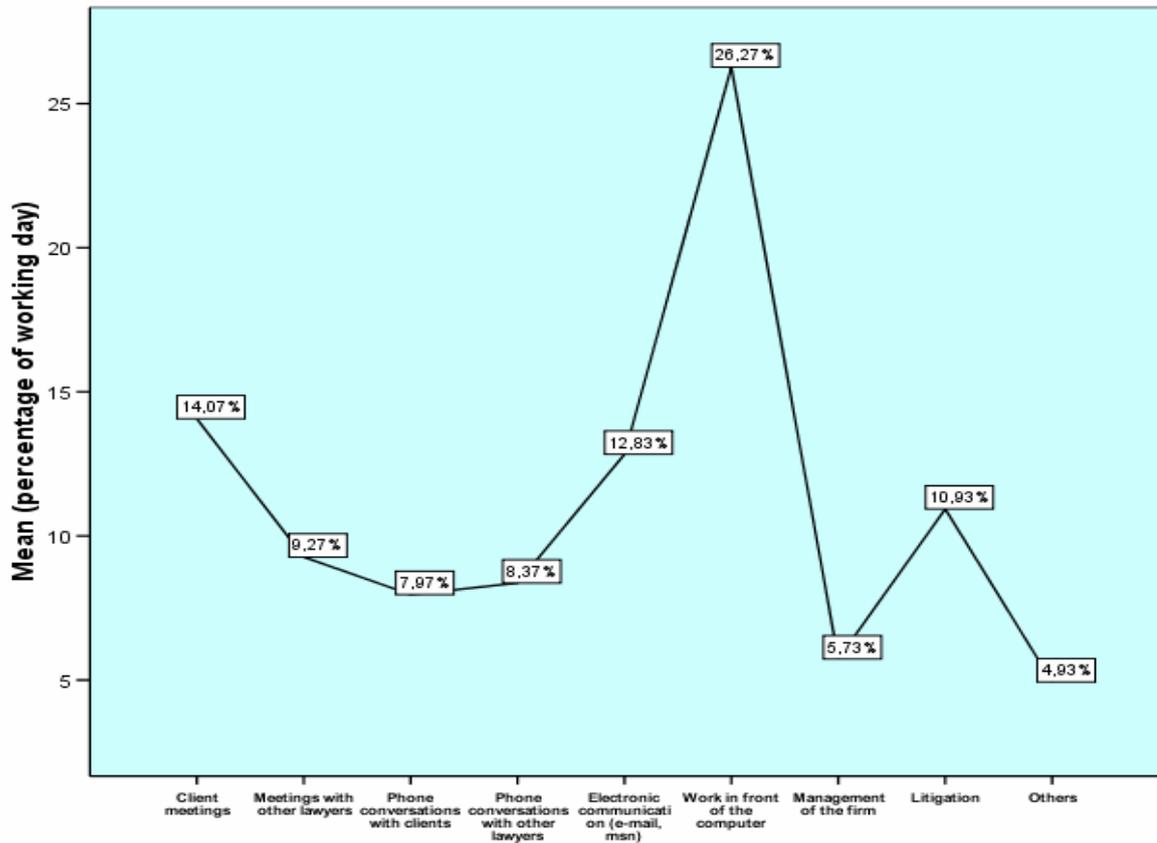


Figure 3.8: Working day, in percentages (arithmetic mean)

The box and whisker plot⁵ (figure 3.9) offers a clearer view on how lawyers spend their working day, showing where the central data is clustered, the median, and the existence of outliers. We can distinguish between those activities of the working day shared in a similar proportion by all kind of organizations and lawyers, for instance working in front of the computer, from those which follow different tendencies depending on the type of organization and the specialization, such as the litigation level.

⁵ A box-and-whisker plot is a histogram-like method of displaying data. The box ends at the quartiles Q1 and Q3. The statistical median is the horizontal line in the box. The “whiskers” show the farthest points that are not outliers (e.g., that are within 3/2 time the interquartile range of Q1 and Q3).

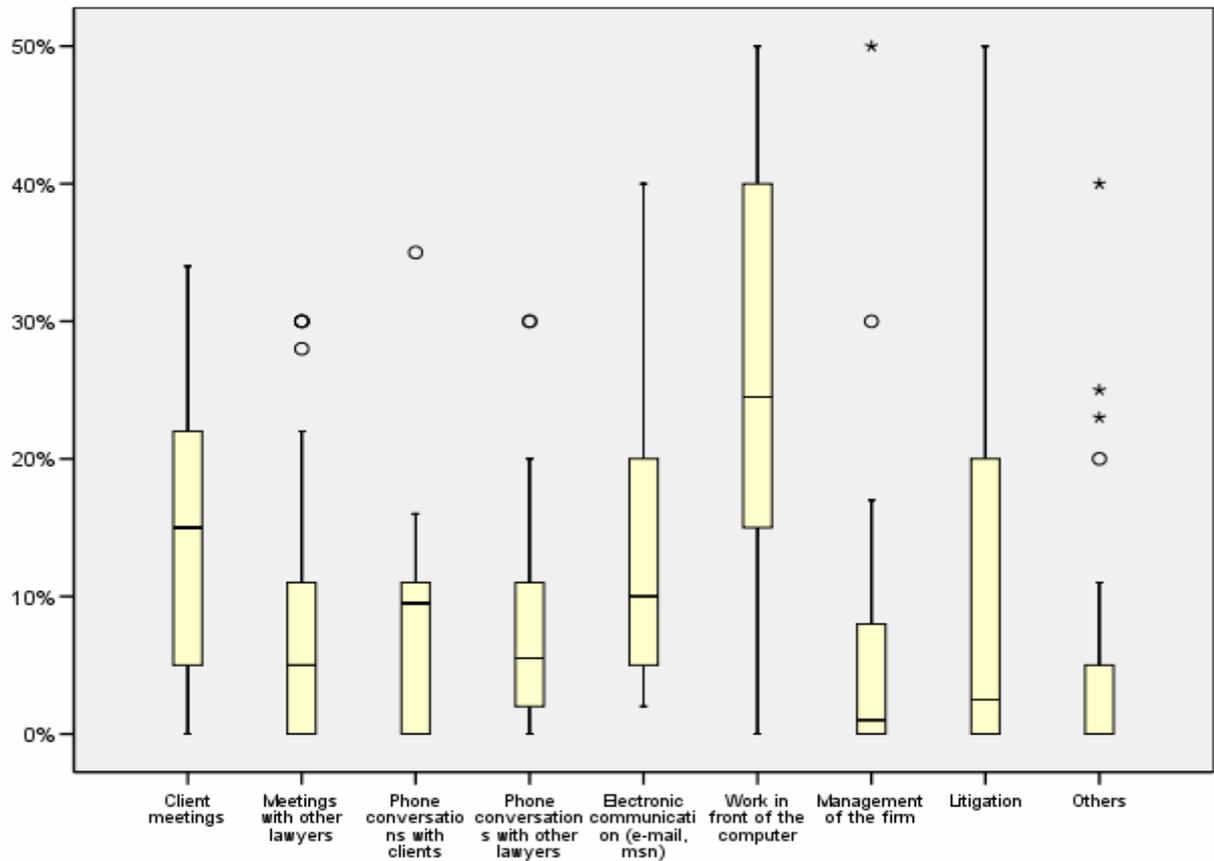


Figure 3.9 Working day, in percentages (Box and whisker plot)

The aspect of e-mail management deserves a specific study of its structure. As it regarded in figure 3.10, lawyers spend per average a 12.65 percent of their working day dealing with their electronic correspondence, but the normal distribution shows they use it very differently. Sociological and technical features may explain the inexistence of a normal distribution. Among the sociological aspects we could mention personal preferences such as meeting a client or phoning him instead of sending an email. Besides, we should bear in mind the heterogeneity of law firms composing the survey, aimed to obtain a broader view of the legal market. Regarding technological features, the lack of an efficient intelligent search may reduce the use of electronic communication (further analysis is carried out in section 3.2-Statistical analysis).

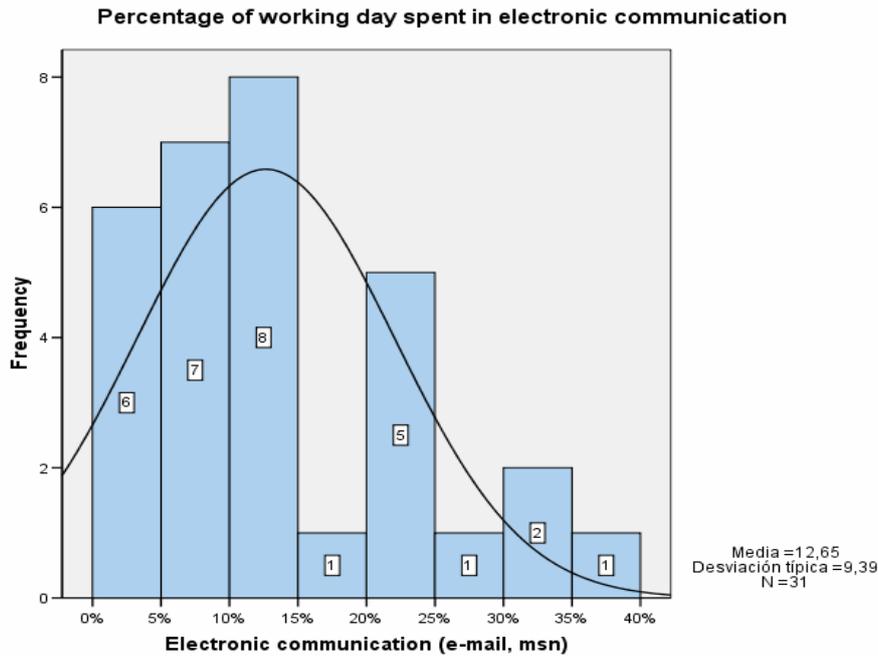


Figure 3.10: Percentage of working day spent in electronic communication

The vast majority of lawyers spend most of their working day in office (69.2 percent), against 7.7 percent of them who are mainly out of office, and 23.1 percent who share their time between office work and going to court. At the same time, team work is essential since more than 90 percent of lawyers work very frequently / frequently with other members of the firm.

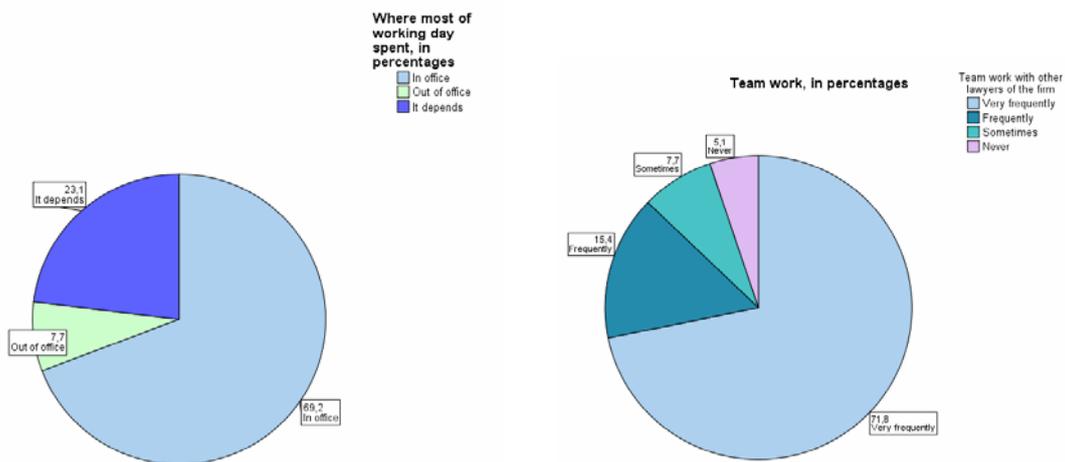


Figure 3.11: Where most of working day spent & team work, in percentages

3.1.6 Time to prepare a standard case

In this section we offer an overview of the time lawyers spend, on average, to prepare a standard case, considering time spent in gathering information, analyzing, and synthesizing it.

Looking at the graphs, the most prominent finding we can extract is the difficulty of lawyers to indicate how long it takes them to prepare their cases. This fact may be due to the heterogeneity of the law profession itself, where the rate of solving a case greatly depends on its complexity.

However, in figure 3.12 we can observe that the smaller the firm the lesser time is used to prepare a case. Regarding time spent in gathering information (figure 3.13) and analyzing and synthesizing information (figure 3.14), we observe that in general they spend more time doing the latter than the former.

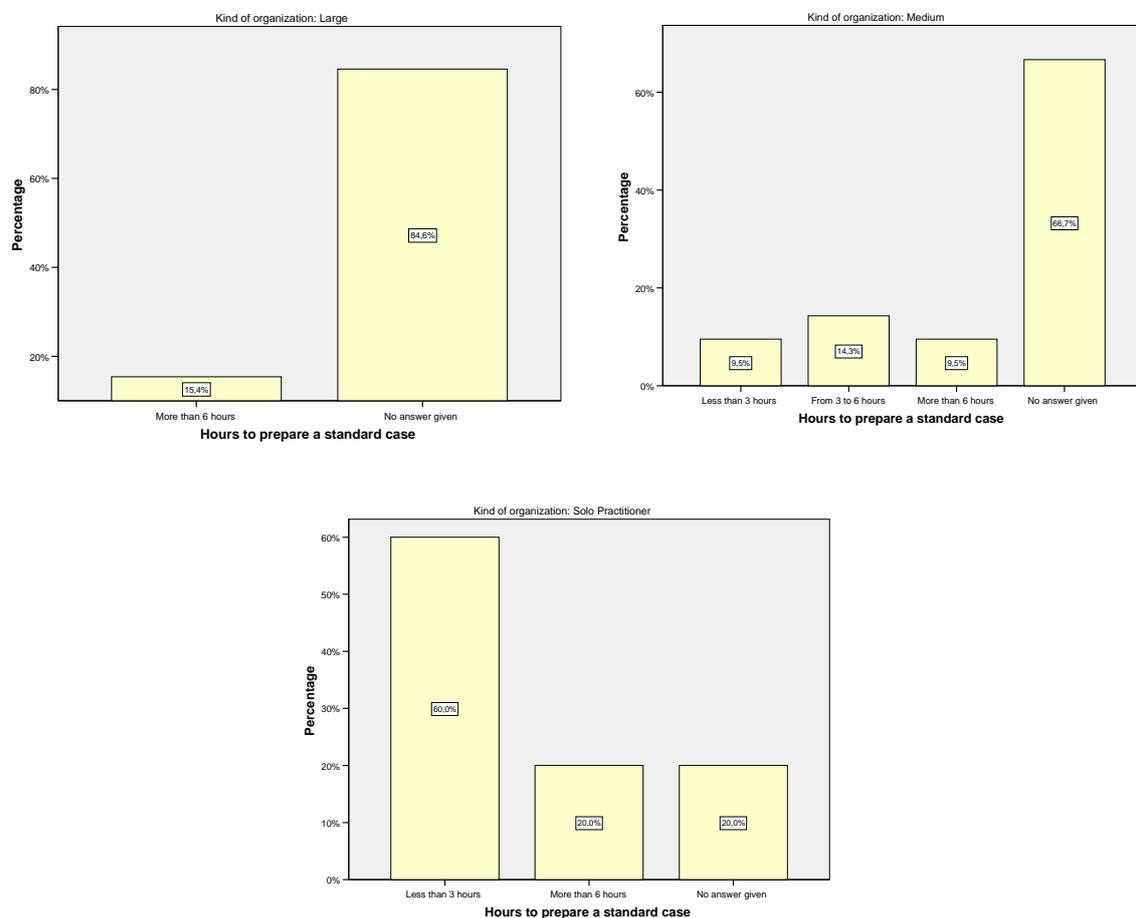


Figure 3.12: Time to prepare a standard case, segmented by kind of organization (large, medium, solo practitioner)

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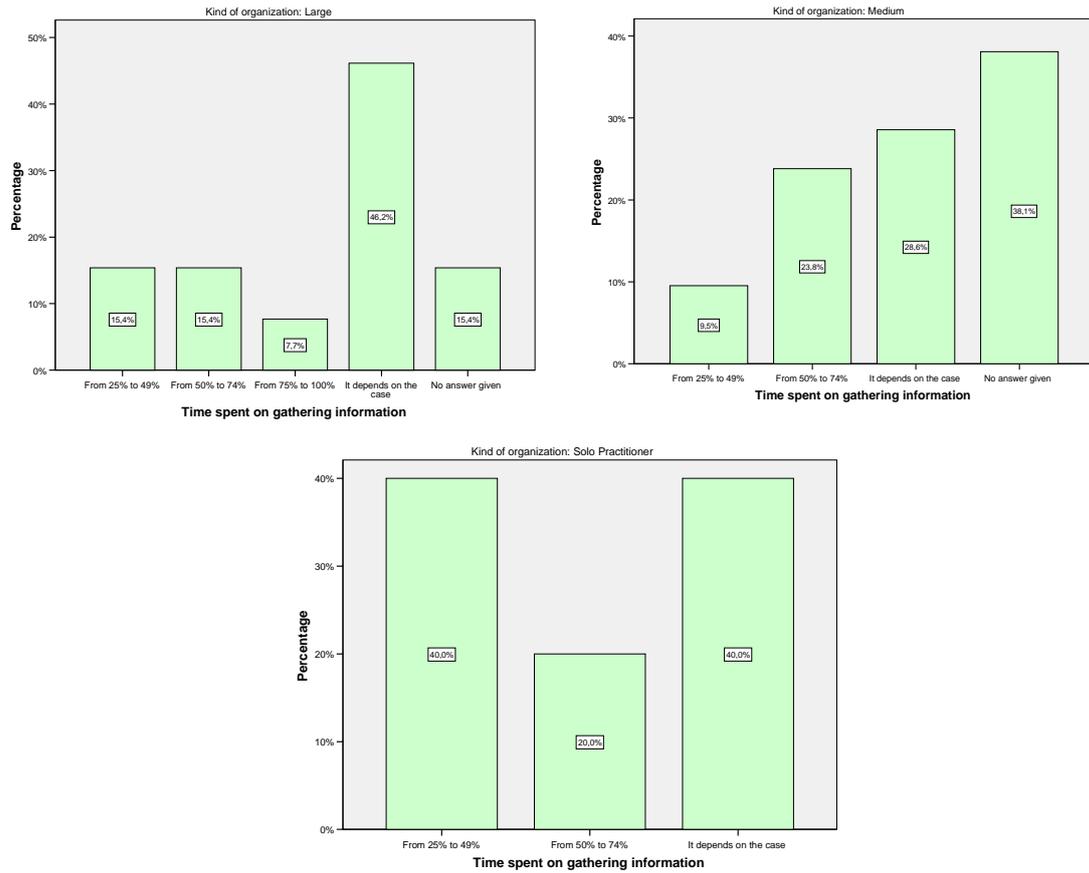
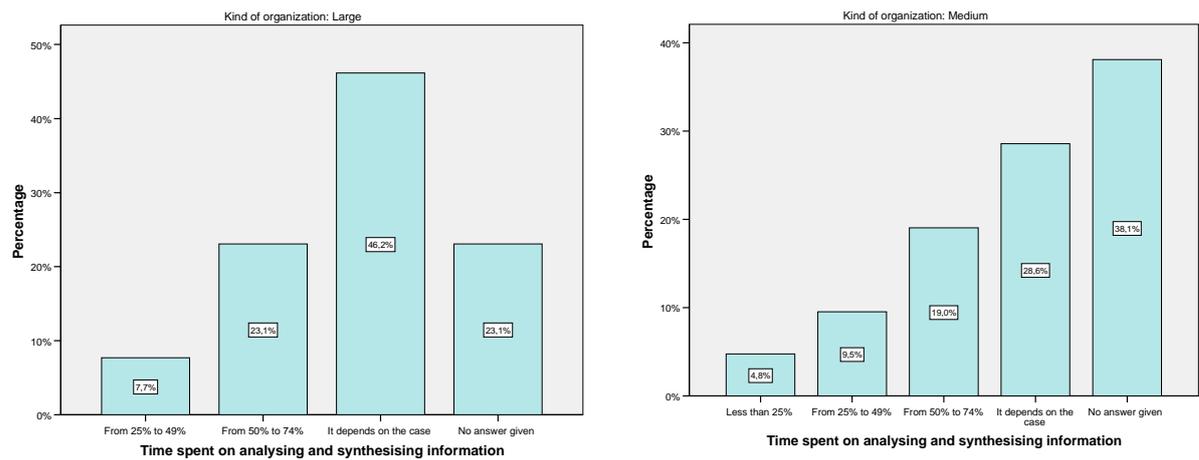


Figure 3.13: Time spent gathering information, segmented by kind of organization (large, medium, solo practitioner)



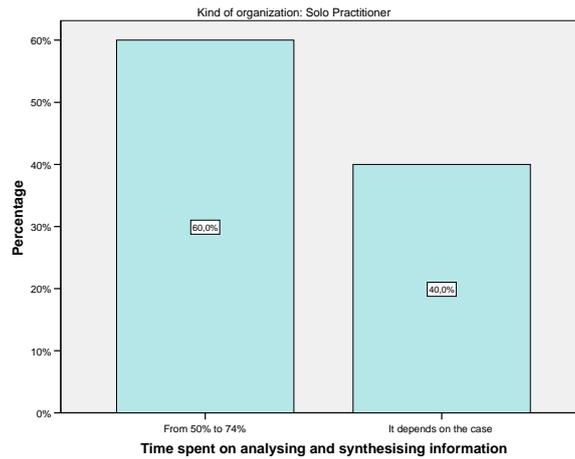


Figure 3.14: Time spent analyzing and synthesizing information, segmented by kind of organization (large, medium, solo practitioner)

3.1.7 IT uses

The totality of lawyers interviewed acknowledged their use of personal computer, word processor and phone. More than 95 percent affirmed to use mobile phone, as well as the Internet in a daily basis. Regarding spread sheet and presentation programs software, the percentages of use are visibly lowered, with 79,5 percent and 56,4 percent, respectively.

Analyzing the use of other ITs, less than half of the lawyers use PDA and case management software (48,72 percent and 43,59 percent, respectively – see figure 3.15).

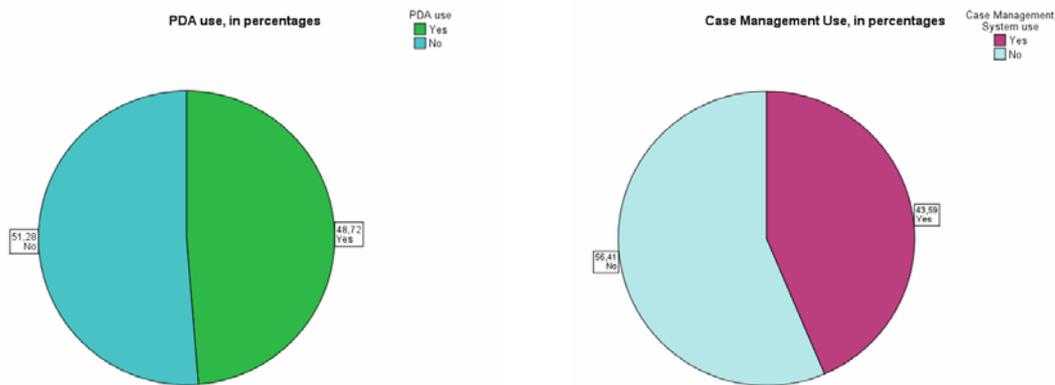


Figure 3.15: PDA and case management use, in percentages

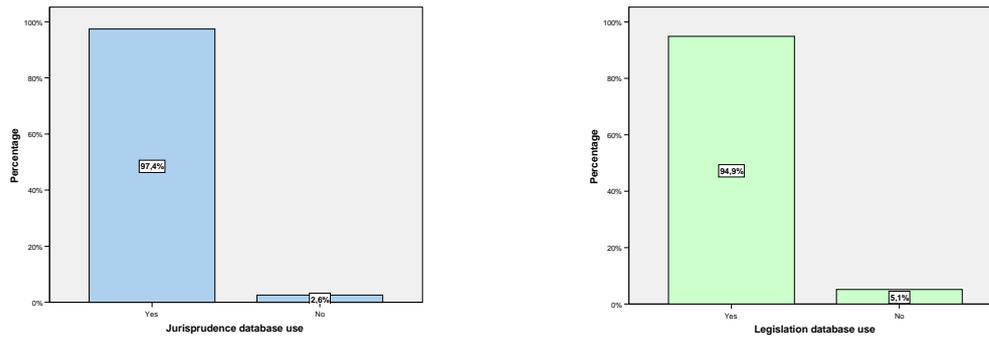


Figure 3.16: Jurisprudence database and legislation database use, in percentages

Lawyers regularly consult jurisprudence and legislation sources. However, they access to them very differently, as we can observe in figures 3.16 and 3.17. Whereas almost the totality of lawyers consult jurisprudence and legislation databases (97,4 percent and 94,9 percent, respectively), their search of legislation and jurisprudence on the web is significantly less frequent (41,03 percent the first, and 66,7 percent the latter).

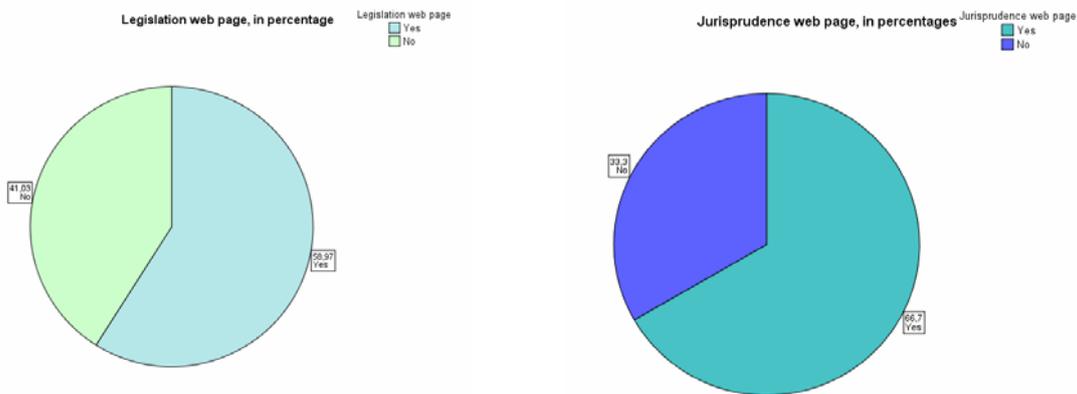


Figure 3.17: Legislation web page and jurisprudence web page use, in percentages

Other web pages worthwhile to mention are the Bar Association of each respective lawyer and the Spanish Official Bulletin (BOE). 46,15 percent of the lawyers acknowledged visiting the latter, and 41,03 percent of them the first (figure 3.18)

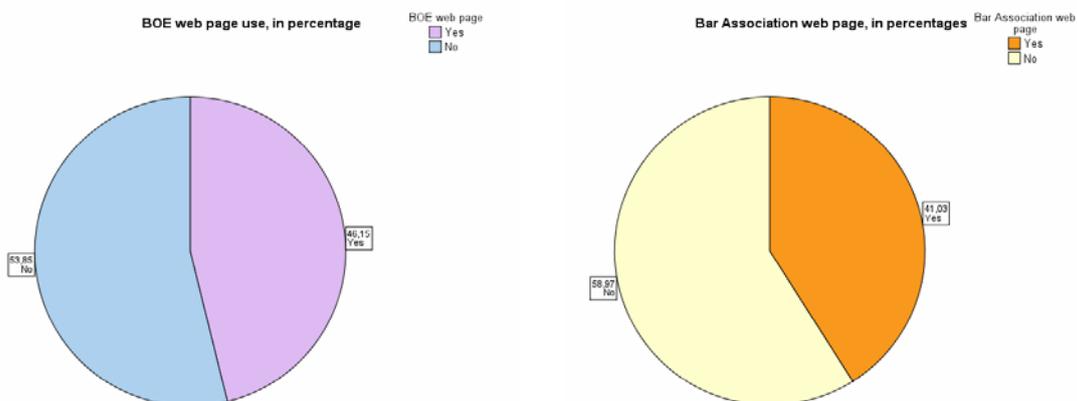


Figure 3.18: BOE web page and Bar Association web page use, in percentages

3.1.8 Year of joining the bar association and the law firm

In this section it will be draft a profile of the average lawyer. Thus, we find that lawyer's age mainly ranges between their thirties and forties (mean of 40 years old), as it shows figure 3.19.

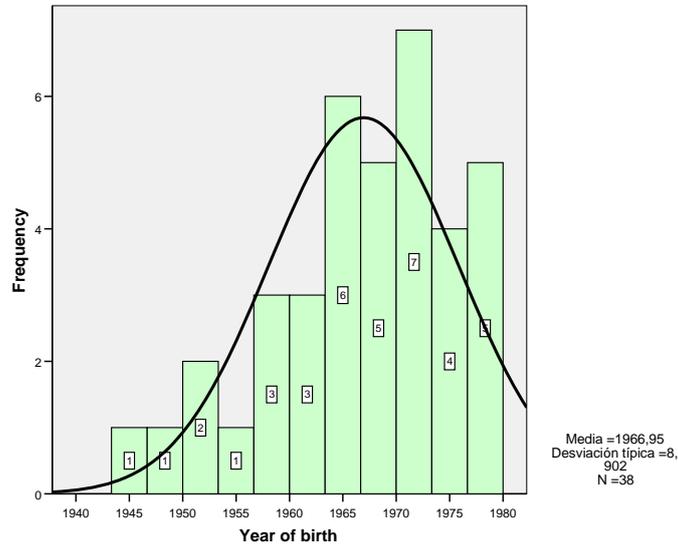


Figure 3.19: Year of birth

Most of them joined their Bar Association in their twenties, as it shows the mean of 1993,76 in figure 3.20. Besides, if we compare figures 3.19 and 3.20 we observe they follow a similar pattern.

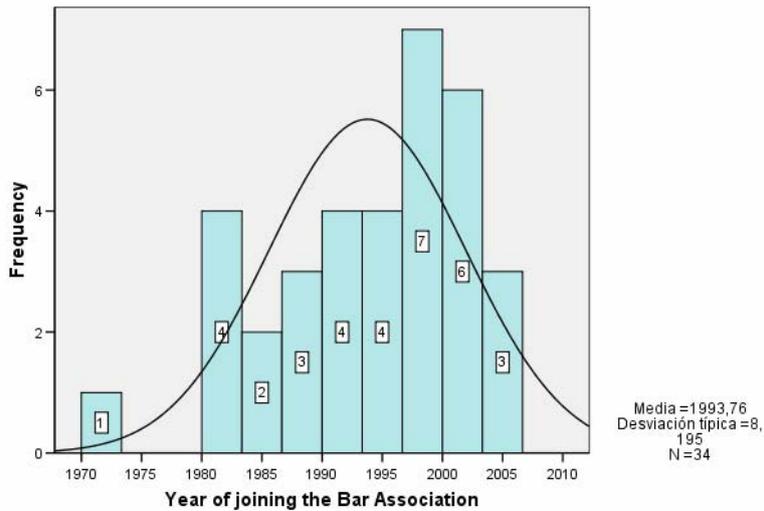


Figure 3.20: Year of joining the Bar Association

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Figure 3.21 shows a quite different view, where more than half of the lawyers interviewed joined the firm after year 2000. We could partially expect this result considering the relative youthfulness of some of the interviewed, but it can also be due to the mobility within the law market, where lawyers either move to another firm or start working as a freelance.

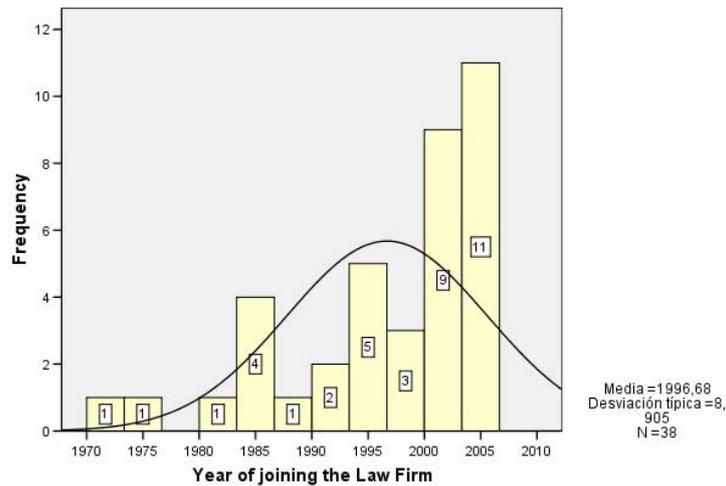


Figure 3.21: Year of joining the Law Firm

3.2 Statistical analysis

3.2.1 Variable “electronic communication” regression analysis

We have used regression to investigate the effect of several predictor variables on “electronic communication (e-mail, msn)”, the outcome variable. As predictor variables, we took organization specialties (civil, criminal, commercial / tax / company, administrative, social), use of PDA, use of jurisprudence and legislation databases, use of web pages (BOE - Official Bulletin of the State, Bar Association, legislation, jurisprudence), lawyer specialty, “IndexWebPages”⁶, “IndexSoftware”⁷.

In the model summary table, the multiple correlation coefficient (0,809) indicates a great deal of variance shared by the independent variables and the dependent variable “electronic communication (e-mail, msn)”. R Square of 0,654 indicates that 65 percent of the variance in “electronic communication (e-mail, msn)” is explained by the independent variables (see figure 3.22).

We obtained interesting data from the Coefficients table, which shows the high grade of significance (0,005) of the independent variable “commercial / tax / company law” with the dependent variable “electronic communication (e-mail, msn)” (see figure 3.23).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,809 ^a	,654	,309	7,806

a. Predictors: (Constant), IndexWebPages, Criminal, Legislation DB, Comercial, PDA, Lawyer Speciality, IndexSoftware, Social, Administrative, BOE, Bar Association, Jurisprudence DB, Civil, Legislation WP, Jurisprudence WP

Figure 3.22: Regression Model Summary table

⁶ “IndexWebPages” is an index which includes the use of the following web pages: BOE (Official Bulletin of the State), Bar Association, Legislation, Jurisprudence, Financial information, General information and other web pages.

⁷ “IndexSoftware” is an index which includes the use of the following electronic equipment / software: PC, phone, mobile phone, PDA, word processor, spread sheet, presentation program, case management system, jurisprudence database, legislation database.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Erro	Beta		
1	(Constant)	35,548	16,449		2,161	,047
	Civil	-16,303	6,686	-,772	-2,438	,028
	Criminal	-2,019	3,969	-,109	-,509	,618
	Comercial	18,306	5,503	,867	3,326	,005
	Administrative	-,831	4,416	-,039	-,188	,853
	Social	-2,714	4,468	-,137	-,607	,553
	PDA	3,451	3,871	,187	,892	,387
	Jurisprudence DB	13,126	17,704	,251	,741	,470
	Legislation DB	-15,676	14,333	-,417	-1,094	,291
	BOE	1,418	3,954	,077	,359	,725
	Bar Association	-3,397	5,594	-,181	-,607	,553
	Legislation WP	16,850	11,636	,908	1,448	,168
	Jurisprudence WP	-14,351	11,908	-,757	-1,205	,247
	Lawyer Speciality	-2,215	1,000	-,458	-2,216	,043
	IndexSoftware	-20,906	21,727	-,207	-,962	,351
	IndexWebPages	10,128	19,043	,302	,532	,603

a. Dependent variable: Electronic communication (e-mail, msn)

Figure 3.23: Regression coefficient table

3.2.2 IT uses by lawyers, regarding speciality

Figure 3.24 shows the normal distribution of use of web pages⁸ by lawyers, by speciality. It ranges from 0 (no use of web pages) to 1 (use of web pages). Thus, we can distinguish which collective follows a more homogeneous behavior.

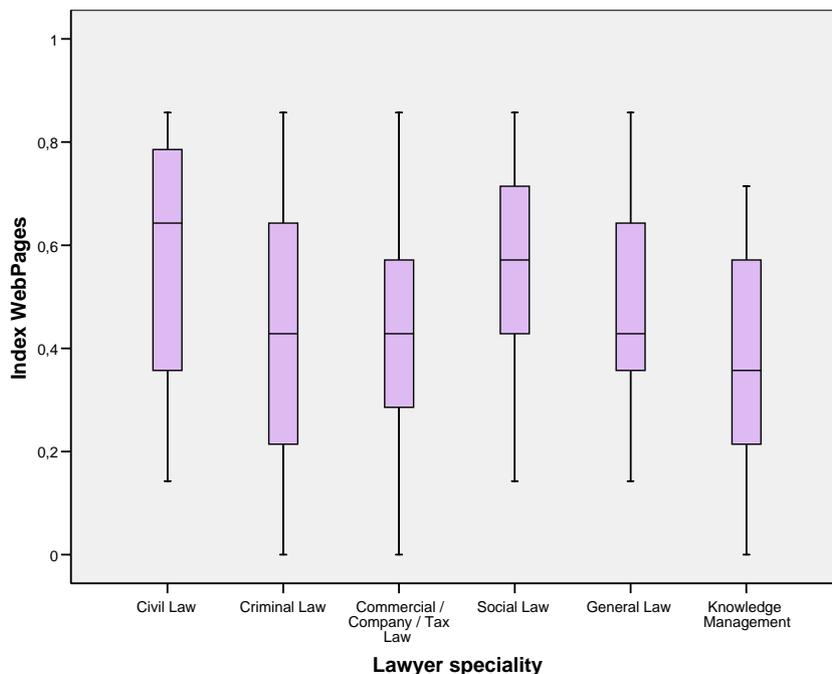


Figure 3.24: Normal distribution of use of web pages by lawyers (regarding speciality)

⁸ “IndexWebPages”, Ibid.

Similarly, figure 3.25 shows the normal distribution of percentage of use of electronic communication (e-mail, msn) by lawyers, regarding specialty.

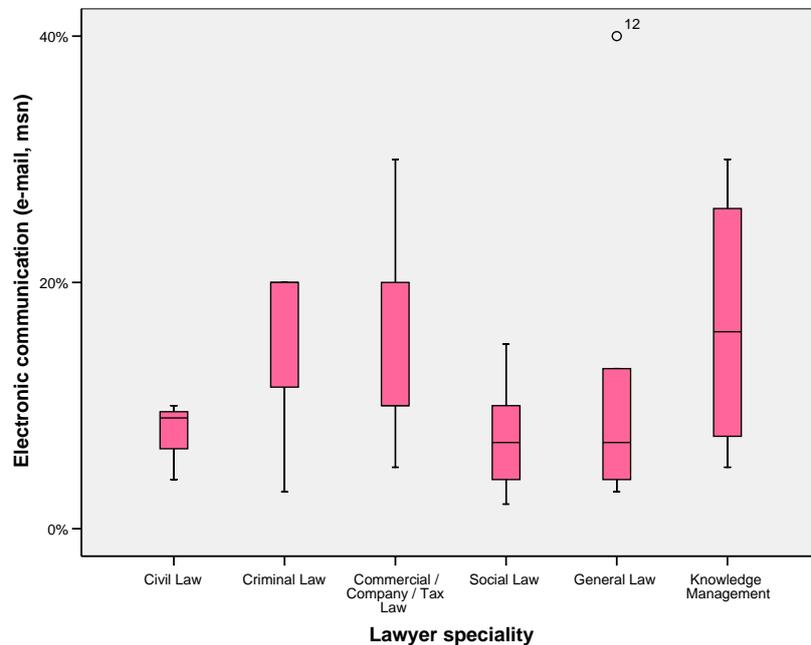


Figure 3.25 Normal distribution of percentage of use of electronic communication by lawyers (regarding specialty)

3.2.3 Working day correlation analysis

In section 3.1.4 (litigation level) we mentioned the linear relationship between the variables “part of the working day spent in electronic communication” and “part of the working day spent in litigation”, as it can be observed in figure 3.26.

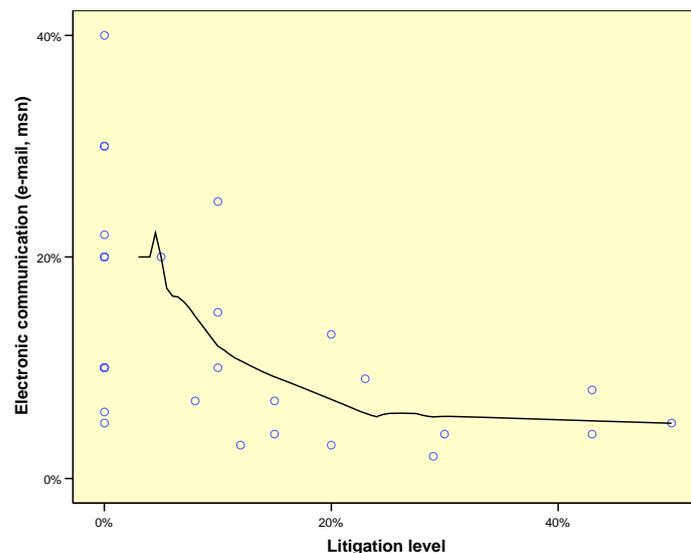


Figure 3.26 Electronic communication regarding litigation level

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Initially, we were searching how strongly our variables from “working day” were related, this is, we looked for the strength and direction (but not causation) of a linear relationship between two random variables. Figure 3.27 shows the result of the correlation analysis. Some results were unexpected, as we explain at follows.

First of all, it was unexpected the linear relationship between “part of the working day spent in electronic communication” and “part of the working day spent in litigation” which attained a negative correlation coefficient of 0,486, significant at the 0,01 level (2-tailed). The logical movement forward lied on finding which kind of organizations had a higher percentage of litigation (see figure 3.7), this is, solo practitioners. Solo practitioners mainly deal with civil and criminal law cases (followed by social law cases), which usually requires going more frequently to court (e.g. divorce cases - see figure 3.5b), so it makes sense the correlation found between those two variables.

On the other hand, we expected to find more strongly related the variables “electronic communication” and “work in front of the computer”. When lawyers work in front of their computer, they mainly gather and synthesize information to solve their cases, and when any subject needs to be consulted they still prefer to meet or to call clients and other lawyers. In fact, adding the time they use calling and meeting clients / other lawyers, it results they spend almost 40 percent of their working day (see figure 3.8) doing this, in front of the 12,83 percent of their time used in electronic communication. Therefore, the potential of the latter is not conveniently seized.

We also expected a stronger relation between “management of the firm” and “electronic communication”. However, further analysis on a bigger sample should be carried on to certify the lack of correlation between those variables, since the majority of lawyers interviewed did not perform managerial tasks at all and the result of this analysis might be biased.

D12.5.5/ Exploitation strategies for the Spanish legal market

		Electronic communication (e-mail, msn)	Client meetings	Meetings with other lawyers	Phone conversations with clients	Phone conversations with other lawyers	Work in front of the computer	Management of the firm	Litigation
Electronic communication (e-mail, msn)	Pearson Correlation	1	-,236	,319	-,090	,174	-,196	-,185	-,486**
	Sig. (2-tailed)		,202	,080	,632	,350	,292	,318	,006
	N	31	31	31	31	31	31	31	31
Client meetings	Pearson Correlation	-,236	1	,159	,185	-,031	-,302	-,178	,296
	Sig. (2-tailed)	,202		,335	,260	,854	,062	,279	,067
	N	31	39	39	39	39	39	39	39
Meetings with other lawyers	Pearson Correlation	,319	,159	1	-,157	-,048	-,278	-,033	-,172
	Sig. (2-tailed)	,080	,335		,339	,772	,087	,840	,296
	N	31	39	39	39	39	39	39	39
Phone conversations with clients	Pearson Correlation	-,090	,185	-,157	1	-,115	,140	-,163	,026
	Sig. (2-tailed)	,632	,260	,339		,484	,396	,322	,876
	N	31	39	39	39	39	39	39	39
Phone conversations with other lawyers	Pearson Correlation	,174	-,031	-,048	-,115	1	,240	-,327*	-,005
	Sig. (2-tailed)	,350	,854	,772	,484		,142	,042	,978
	N	31	39	39	39	39	39	39	39
Work in front of the computer	Pearson Correlation	-,196	-,302	-,278	,140	,240	1	,137	-,263
	Sig. (2-tailed)	,292	,062	,087	,396	,142		,405	,106
	N	31	39	39	39	39	39	39	39
Management of the firm	Pearson Correlation	-,185	-,178	-,033	-,163	-,327*	,137	1	-,161
	Sig. (2-tailed)	,318	,279	,840	,322	,042	,405		,328
	N	31	39	39	39	39	39	39	39
Litigation	Pearson Correlation	-,486**	,296	-,172	,026	-,005	-,263	-,161	1
	Sig. (2-tailed)	,006	,067	,296	,876	,978	,106	,328	
	N	31	39	39	39	39	39	39	39

** . Correlation is significant at the 0,01 level (2-tailed)

* . Correlation is significant at the 0,05 level (2-tailed)

Figure 3.27: Variables of “working day”, correlation analysis

4 Description of the product

In this section we will review both the specific requirements of the product to be developed and its basic functionalities. Although further work is still needed to refine these two aspects, the market research done so far constitute a solid basis for commercial exploitation. We will finish the section by providing a preliminary analysis of competitors in the marketplace.

4.1 Trends to take into account

One of the first conclusions drawn from fieldwork is that it is becoming increasingly difficult for lawyers to deal with larger flows of email communication. This may go in line with current estimates showing that “corporate users send and receive an average of 133 messages per day and this number is expected to reach 160 messages by 2009” [18]. Other studies report e-mail size and volume growing by 30 percent annually [19]. There are at least four reasons contributing to this expansion in volume and size: (i) growth in the number of e-mail users; (ii) growth in the size of email messages; (iii) growth in the volume of messages per user; (iv) regulatory compliance pressures which are forcing organizations to retain email for long periods of time.

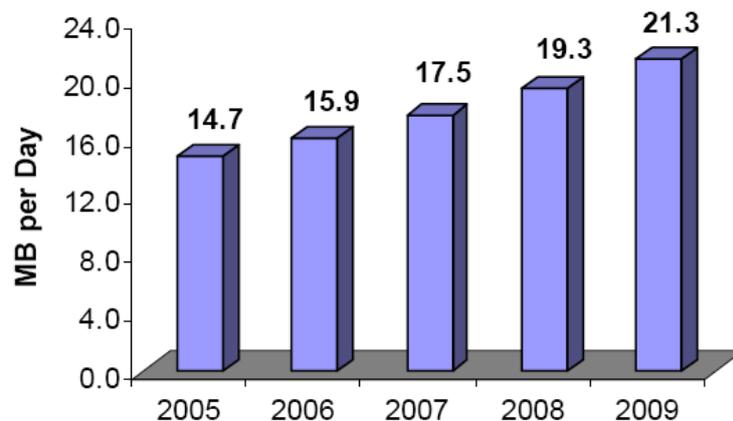


Figure 4.1: E-mail storage requirement per user, per day (2005-2009) [18]

Another challenge relates to e-mail content: it has also been reported that e-mails typically contain 60 percent to 70 percent of business critical data. This may be specially the case for law firms, which have adopted e-mail as the standard way of exchanging documents. Compounding all these issues, it becomes clear that the tasks of locating, indexing, archiving or retrieving e-mails will become harder for lawyers. Since there are further specificities to be considered in the legal domain (i.e. policy guidelines) we will review them together with the requirements of the product below.

4.2 Requirements of the product

As regards the requirements of the product, we will need to consider what we may define as “organizational” and “market requirements”. Organizational requirements refer to compliance with professional standards and policies in place, while market requirements point to requisites extracted from the market research previously reported.

4.2.1 Organizational requirements

In December 2005, the Council of Bars and Law Societies of Europe (CCBE) issued a set of policy guidelines covering the use of electronic communication and the Internet by lawyers and law firms [21]. The document started by reminding lawyers and their organizations that:

The electronic provision of legal services, via electronic mail (“e-mail”), the Internet or any other new technology, offers lawyers an opportunity to enhance the quality of their services and the speed at which these can be delivered to their clients. Without proper guidance, however, e-services can result in serious losses for which a firm, and lawyer, may be held liable [21].

Synthesizing the different aspects considered in the report, there are at least three domains that the product would need to cover:

- **E-mail archiving & indexing:** This is a basic requirement of the product, since lawyers are requested to develop fixed policies regarding the archiving of electronic documents and e-mails. This implies decisions not only on what should be archived, but how it should be archived, in order to preserve accessibility to the electronic documents and e-mails in the future. But, at the same time, this the most marketed feature of any e-mail management system. In Smallwood words “the e-mail management market—including instant messaging (IM)—has been so active that the past year has been more of a Wild West shootout than a software marketplace. There are so many choices on the table—more than 200—that user organizations have a difficult time making software selections.” [20].
- **Outbound Content Compliance (OCC):** Both inbound and outbound compliance are becoming critical requirements for any e-mail management system. OCC implies to detect and prevent outbound content that violates policies of the organization and/or government regulations. For example, a few of the US laws governing how organizations must manage their email include the US Securities and Exchange Commission (SEC), the National Association of Securities Dealers (NASD), the Freedom of Information Act, the Sarbanes-Oxley Act of 2002, and Rules of Civil Procedure (26, 34) case law [19].⁹ To have an idea of the implications of this new market segment, the

⁹ It is important to notice, nevertheless, that U.S. legislation may clash in a number of aspects with EU legislation on personal data protection (i.e. Directive 95/46/EC). As a result of contradictory schemes of e-mail screening services or internal whistle-blowing, for instance, EU-based affiliates of US companies may face risk of simultaneous sanctions from EU data protection authorities if they fail to comply with the EU rules and from the Sarbanes Oxley Act if they fail to comply with its provisions.

worldwide information management for content compliance is forecast to pass the \$20 billion mark in 2009, and grow at a 22 percent compound annual growth rate through 2005-200 [22].

Therefore, OCC deals with internal threats, as opposite to more traditional security solutions (firewall, anti-virus, anti-spam etc.) dealing with external threats. Since the provision of legal services is one of the most scrutinized areas, lawyers need also be aware that sending, receiving and holding e-mail correspondence may involve the processing of personal data which must be dealt with in accordance with Data Protection Legislation. According to the CCBE guidelines: "Firms need to monitor the correspondence and communications of their fee-earners and other staff to ensure that their professional standards are maintained. If advice is given by staff by e-mail, firms will need to be able to check the accuracy of the advice." [21].

- **E-mail tagging:** All e-mail messages, while in the organization's e-mail system, are susceptible of document discovery for litigation or regulatory inquiries. In 2004, an ePolicy Institute survey of US companies revealed that 21 percent of participants had their employees' email and instant messaging content subpoenaed as part of a lawsuit or investigation [19]. In disputes, even deleted e-mails may well be subject to disclosure. As a result, firms need to have fixed policies as to the choice of which e-mail messages need to be considered for preservation. The product should therefore be able to tag e-mails considering at least these four categories:
 - **Spam** or other un-requested or undesired email every organization tries to limit.
 - **Transitory/non-business emails** not required for any legal, business or regulatory purpose.
 - **Personal emails** a user wishes to keep, but that the organization does not need for legal, business or regulatory purposes.¹⁰
 - **Business emails** that must be retained for legal, business or regulatory reasons. This email type is further complicated by the user not knowing if it is "the email of record" or a copy [19].

Also, as the CCBE guidelines remind: "It is also important that the characteristics of the digital document be preserved so that the integrity of the document is safeguarded." [21].

Organizational requirements, in sum, deal with both generic aspects of e-mail management that affect any business company and specific elements present in a number of critical law firm processes, such as contract management, deal management, tax management, mergers and acquisitions, etc.

¹⁰ Nevertheless, this needs to be contrasted with CCBE guidelines regarding productivity, monitoring and policy enforcement: "If users are permitted to send private e-mail on the firm's system, it will be impractical to isolate it from other messages for monitoring purposes. It should be part of the firm's terms of service that staff agrees to such monitoring, and the possibility of this occurring should be made clear." [21]

4.2.2 *Market requirements*

So far, we have gone through technical requirements that are already standard in e-mail management systems (i.e. archiving and retrieving and, to some extent, e-mail tagging). Requirements such as OCC, conversely, are not yet part of a mature market and could add significant value to the intended product if it is going to target the legal domain. Let us now consider an essential additional market requirement.

Domain specificity

Given the fierce competition in the generic “information access” market, domain specificity is critical for the success of a product. Clients have to appreciate the product above all for its knowledge about the domain; intelligent technology itself is not enough. It is therefore beyond doubt that the product needs to be specialized in the legal market. Nevertheless, the legal domain is too vast to be considered as a single, homogeneous target. Legal specialties are plural, intricate, and considerably distant to each other. To cover all of them would require the development of multiple sub legal domain ontologies, which is out of the scope of the proposed exploitation strategy. Consequently, it is also important that the product will be domain specific. In addition, geographic specialization is also important. This is indeed the case in the legal domain, where there are still many differences between countries, so it would be hard to come up with a general solution independent of location.

There are many reasons to consider the domains of commercial law and tax law as the most qualified for the purposes of the product. First, according to general data, market research done by Wolters-Kluwer in October 2006 reported that 20 percent of demands of legal services in Spain were related to tax law [23]. Second, results from the SEKT survey presented in Section 3 of this report suggest a strong statistical correlation between lawyers’ frequent use of e-mail and commercial and tax law as main specialty reported by legal professionals. The product should therefore be able to archive, index, tag and scrutinize all incoming and outgoing e-mail messages of commercial and tax lawyers, on the basis of legal ontologies mapping these legal sub-domains.

4.3 Functionalities of the product

There are two main aspects about the product:

- A legal ontology reflecting the domain of interest (e.g. commercial and tax law)
- Semantic Technology that provides added value compared to standard information retrieval (information access) technology

The main functionality of the foreseen product is as follows. Notice that the first version of the product may include a subset of the full product. A user (a lawyer) selects the ontology of interest from a set. The ontology functions as a kind of filter (sun glasses) on the information he or she will see. The main source of information of the application is e-mail, and in particular Outlook files. The query will undergo a semantic enrichment by analyzing the query in real time in light of the selected

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ontology, in addition of standard Natural Language Processing techniques. See Figure 4.2 for a graphical depiction of the main functionalities of the product.

The “enriched” query is send to the indexed e-mails in Outlook for retrieval of the most relevant ones. Notice that the e-mail index can be a standard index or may also be semantically enriched based on the selected ontologies (which would take place as a batch process). The result is a -possibly categorized- list of results with relevant e-mails to the query, which the lawyer can consult.

The next functionality is to contrast the content of the retrieved e-mails to a set of legally relevant websites or other sources. Currently we foresee the following types of resources (this is based on our current market understanding, so it may change as we gain experience).

- Existing legal content providers, such as Westlaw, La Ley, etc. Such content is available on a paid subscription basis. Therefore only clients with such subscriptions in place will be able to enjoy this functionality.
- The top 10 or 20 of the most visited websites by Spanish lawyers, including the Spanish Journal of the State, sites of Bar Associations, etc.
- Legal FAQ (Frequently Asked Questions) sites of which several are well considered by Spanish legal professionals.

To access each of the sources of information, requires a specifically formatted (enriched) query to the source.

Some challenges of this product include the ranking algorithm, which will be informed by the legal ontology, as well as how to present the information coming from the external sources in a coherent and easy understandable way to lawyers.

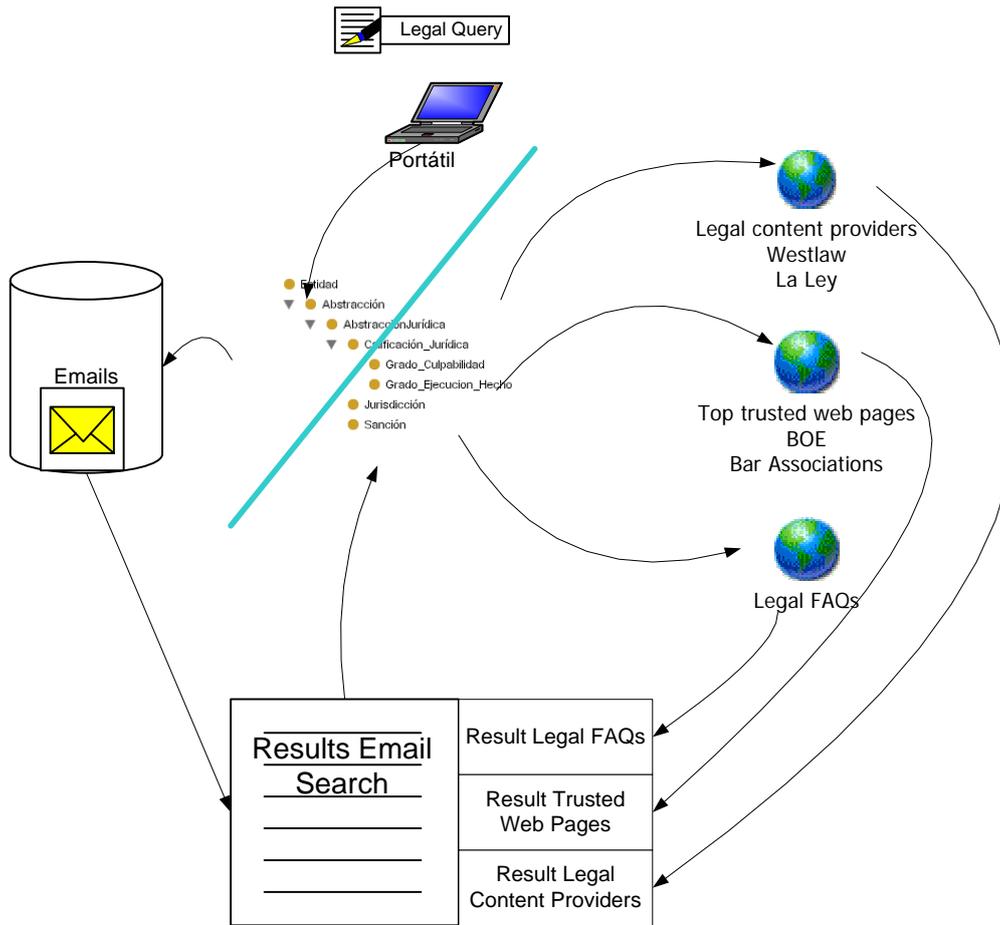


Figure 4.2: Functionalities of the product

5 Competitors Analysis and Opportunity

5.1 Competitors

There are many important players in the global e-mail management market, mostly dominated by US companies. The table below shows some of the players classified according to basic functionalities like whether it is offered in-house or hosted, and whether it provides an indexing service for later retrieval.

<i>Name</i>	<i>Company</i>	<i>Hosted</i>	<i>In-house</i>	<i>Indexing</i>	<i>Customers</i>
AXS-One Compliance Platform	Axs-One		√	√	AXA Financial, Deutch Bank
Captaris Exchange Archive Link	Captaris			√	
CA Message Manager	Computer Ass.	√	√		Liberty Healthcare, Seattle Northwest Sec.
EMC E-mailXtender	EMC		√		Goldman Sachs, SEC
DocuLogix	Litigation Solution	√		√	
FileNet E-mail Manager	FileNet		√		
Fortiva	Fortiva	√			National Life Company, Pacific Crest
FontBridge	Microsoft	√			
Hummingbird E-mail Management	Hummingbird		√	√	Hennigan Bennett & Dorman, Cuatrecasas
Mimosa NearPoint	Mimosa Syst.		√	√	Virtua Health, Sears
Livelink ECM	Open Text		√		Merck, Hitachi Data Systems, U.S. Treasury
Orchestria Smart-Tagging	Orchestria		√	√	
Postini	Postini	√			Merrill Lynch; BASF, Lloyds, KPMG
Mailmeter Storage Management	Waterford Tech.			√	Bausch & Lomb, Krohn & Moss
Zantaz E-mail Archiving Solution	Zantaz	√		√	EDF Energy, Burnet, Duckworth & Palmer
ZipLip	Ziplip		√	√	Morgan Keegan, Bank of New York

Figure 4.3: E-mail management providers

The figure below shows the Gartner quadrant for the vendors appearing in the table.

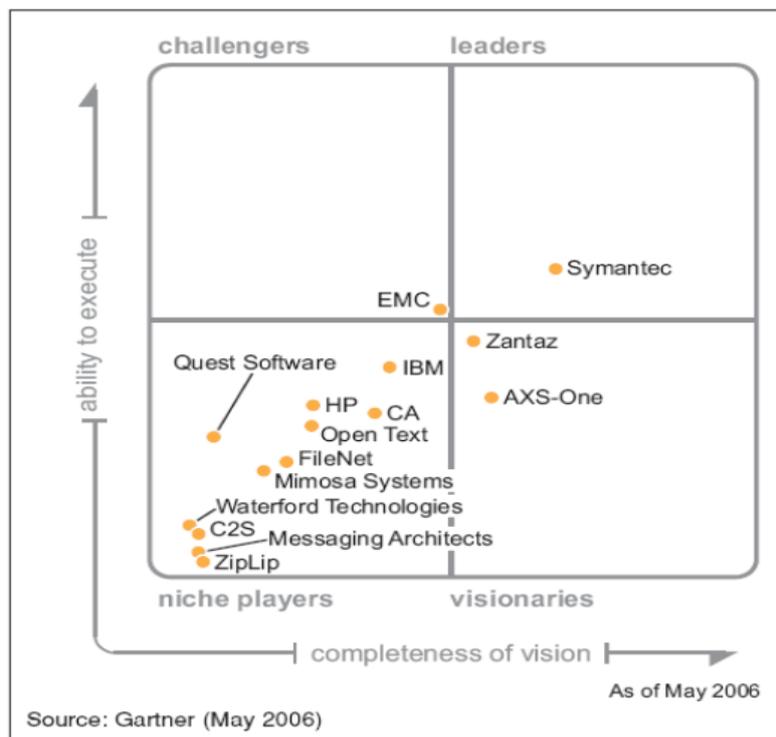


Figure 4.4: Gartner quadrant of e-mail management providers

The vendors mentioned here provide services including:

- E-mail archive services
- E-mail retrieve services
- Services that integrate e-mail with content management

For our product, we need a more detailed competitor analysis that not only considers generic e-mail management vendors, but also legal niche players, generalist integrators, knowledge management vendors and search specialists. The figure below shows a quadrant classifying the main competitors according to those dimensions. The top-left area contains generic integrators such as the big consultants who can always build solutions from scratch or implement a solution of third parties. The top right area represents the competition coming from the search sector. The bottom left area covers the knowledge management platforms such as Websphere, Sharepoint. Especially Hummingbird seem to have some specific niche in the legal sector. Finally the bottom right area represents the legal niche players, i.e. the legal content providers.

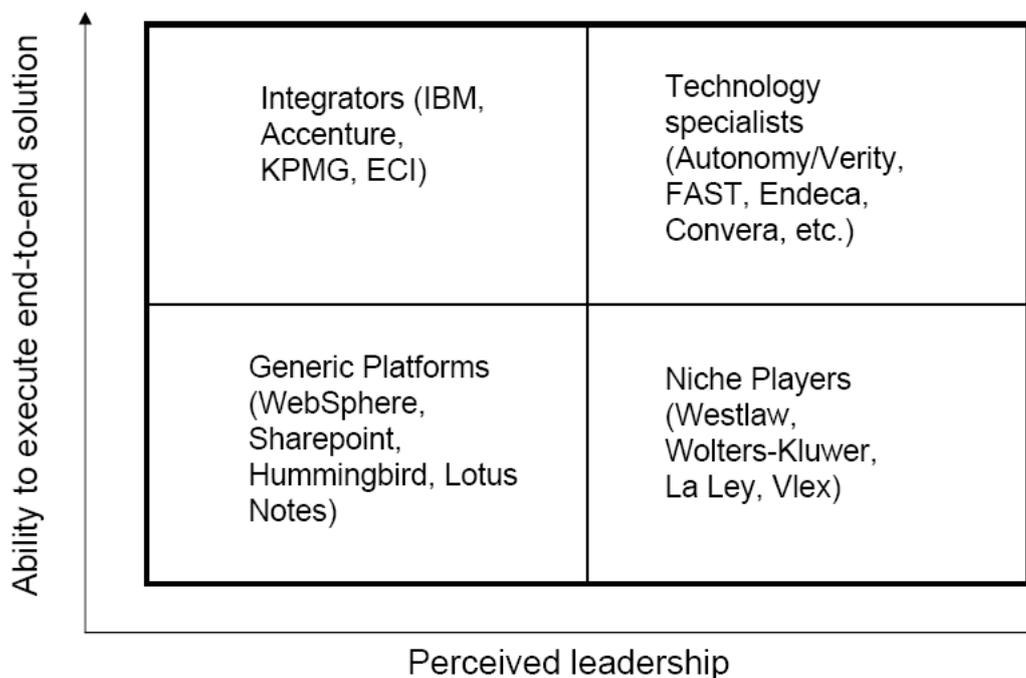


Figure 4.5: E-mail management providers by type of vendors

5.2 Opportunities

Given this preliminary competitor analysis, we see a clear opportunity for more intelligent solutions for managing e-mail in the legal sector; a solution to—to some extent—understands the e-mail content in a legal context, and that in addition provides added value by automatically linking the e-mails to relevant external legal information sources. We are also aware of the fact that e-mail management is in an early state and, as such, buyers are looking towards retention and archiving solutions rather than richer applications that include, for example, automatic categorization or filtering [24]. On the other hand, we are convinced that soon buyers will look for more advanced solutions. In a study conducted by AIMM, only 11 percent of users reported that their compliance with respect to e-mail was completely under control, and nearly 25 percent described their e-mail management as “complete chaos” [25].

The figure below illustrates where we see the opportunity of our product in the legal sector in the landscape of current players, external drivers and technological trends. We expect that technological trends, and legal and information drivers will create (or have created) the need for more advanced (semantically enabled / intelligent) email solutions.

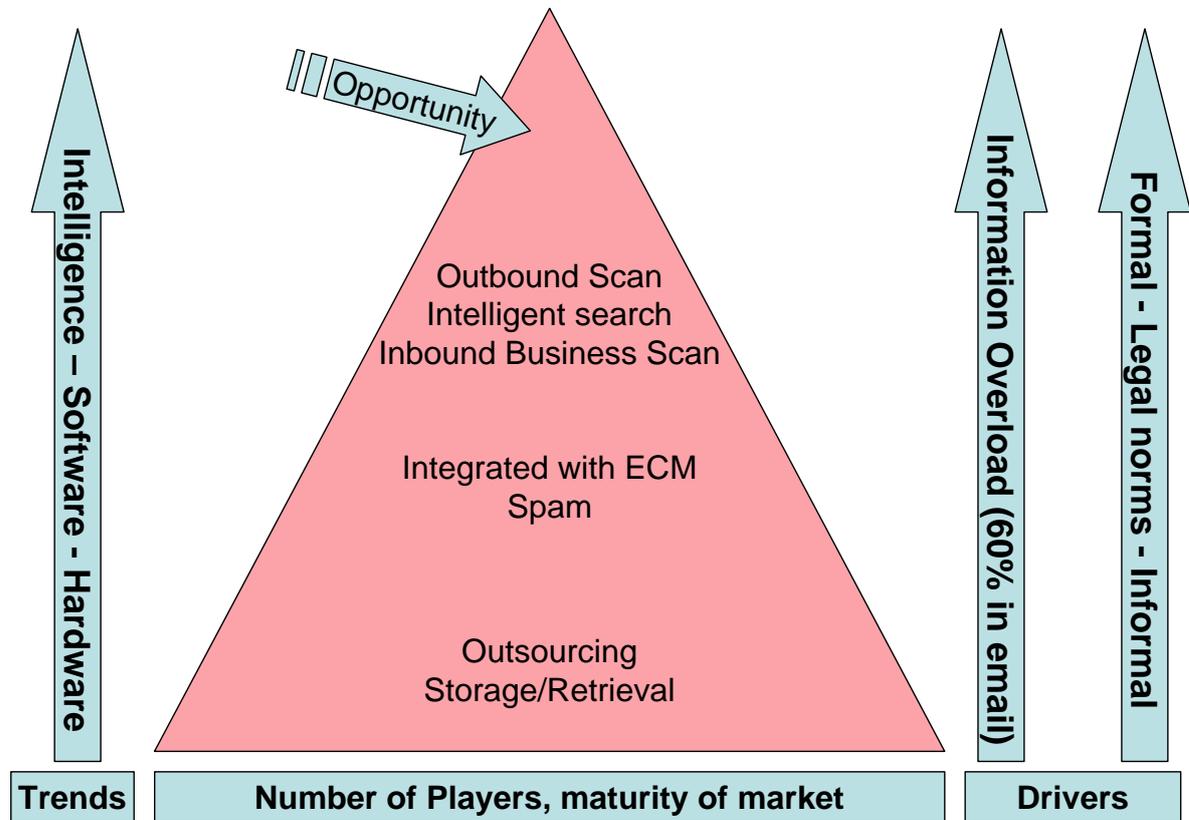


Figure 4.6: Opportunities

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Annex: The survey form**Guidelines to the interview of legal professionals**

Data related to signature, personal and professional profile, and any personal opinion that could be manifested in this interview are secret and confidential. These data are exclusively requested to allow the statistical control of information. Interviewees won't be identified. Answers are secret and anonymous in order to guarantee the complete reliability of the results.

1) Firm's profile

1a) Type of firm

Solo practitioner	
Partner's firm, individual practice	
Partner's firm	
Consultancy/agency	
Others (specify)	

1b) Number of professionals

Senior partners	
Interns	
Economists	
Engineers	
Other graduates	
Foundation/associate degrees	
Administrative staff	
Others (specify)	

1c) Area of practice

Civil Law	
Criminal Law	
Business Law	
Administrative Law	
Labour Law	
Others (specify)	

1d) Level of litigation

No litigation	
Less than 10 percent of the cases	
10 to 25 percent	
25 to 50 percent	
50 to 75 percent	

75 to 100 percent	
No answer	

2) Type of activity-

2a) Describe your daily routine concerning your professional activity (open question).

2b) ¿How much time (hours) do you usually spend on the following activities?

Meetings with clients	
Meetings with other lawyers	
Phone conversations with clients	
Phone conversations with lawyers	
Electronic communications (e-mail, MSN)	
Working on the computer	
Firm's internal management	
Litigation	
Other activities (specify)	

2c) Where do you spend the most part of your working time?

At the office	
Out of the office	
It depends (specify)	

2d) Do you work with other lawyers at the office? (i) very much; (ii) pretty much; (iii) little; (iv) very little; (v) not at all.

2e) How much time do you need to prepare a typical case?

2e1) What percentage of this time is devoted to data collection? (similar cases, statutes,...)?

2e2) What percentage to case analysis (organizing collected data) and synthesis (developing legal arguments)?

2f) What kind of technical support would be useful in this kind of processes?

3) Use of ICT.

3a) What kind of tools do you normally use in your daily work?

PC	
Telephone	
Mobile telephone	
PDA	
Others (specify)	

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3b) What kind of software do you normally use in your daily work?

Text processors	
Datasheets	
Presentations	
Case management	
Case Law databases	
Law databases	
Others (specify)	

3c) Do you identify any shortcomings or inconveniences in these tools?

3d) Internet use.

Daily	
2-3 times per week	
once a week	
Several times a month	
Rarely	
Never	

3e) Which web pages do you visit most often?

Official Bulletin of the State	
Bar's webpage	
Legislation	
Jurisprudence	
Economical information (specify)	
General information (specify)	
Others (specify)	

3f) What advantages offers the use of Internet? Ex. Does it allow saving time? How much?

3g) What working processes have been modified by the use of Internet?

3h) What working processes have not been modified by the use of Internet?

3i) What changes can you foresee with the development of Internet?

3j) Does your firm allocate a specific section of the budget to ICT?

4. Personal data

- 4a) Year of birth.
 - 4b) Sex.
 - 4c) City of practice.
 - 4d) University of graduation.
 - 4e) Postgraduate studies.
 - 4f) Year of admission to the bar association
 - 4g) Year of admission to the firm.
 - 4h) Area of practice.
-