

Ethical Behaviour and Operating Performance of Insurance Broker Firms

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Abstract

In this research we investigate whether there is a relationship between the ethical behaviour of insurance brokers and their operating performance. Specifically, we focus on the practice of deferring the premiums charged to clients in order to invest them in short-term financial products and, as a result, gain an additional financial return to their traditional sources of income. We consider this practice to be an unethical behaviour since uninformed clients, that is, those who are not aware of the legal process of brokerage, expects the broker to immediately process the policy with the insurance company once the premium has been paid. We find that the better the performance and the larger the firm size, the worse the ethical behaviour.

Keywords: insurance broker, ethical behaviour, operating performance

1. Introduction

An extended opinion in the literature suggests that brokers do not always act in the best interest of their clients. On the contrary, the main objective of brokers seems to be to maximize their profits rather than the wealth of their clients [Battalio and Loughran (2008)]. Insurance brokers are individuals or legal entities that are characterized by high autonomy when acting as intermediaries in the insurance market independently and impartially, and do not maintain links with any particular insurer. In fact, the legal regulation of the activity of a broker is developed on the basis of an independent advisory service where, in general terms, the broker finds suitable insurance policies for clients after identifying their risks and examining the products offered by various insurance companies. Therefore, the insurance broker should act preferentially in the best interest of the client and not the insurance company. For instance, the broker must present the client with insurance contracts from several insurance companies that best fit the client's needs and must inform the client of the insurer's contract terms and the conditions and obligations that the client is undertaking, according to his professional judgment. In any case, the broker is required to provide coverage at a competitive price. One critical point regarding the activity of a broker is his remuneration. In Europe, Directive 2002/92/EC of the European Parliament and of the Council of 9 December 2002 on insurance mediation states in paragraph 11th of the preamble that it applies to people whose business is to provide private insurance brokerage services to third parties in exchange for a fee, which may be pecuniary or take any other form of agreed upon economic advantage, and related services provided by these intermediaries.³ Thus, brokers' earnings come from, on the one hand, commissions on purchased insurance policies for mediating between the insurance companies and their clients and, on the other hand, through the fees for advisory services regarding hedging against risk, which are paid solely by the insured.⁴

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³Article 2 paragraph 5 Council Directive 2002/92/EC defines insurance intermediary as any natural or legal person who, in exchange for remuneration, takes up or pursues insurance mediation.

⁴See also Cummins and Doherty (2006).

In accordance with this, the new Spanish Law on Private Mediation Insurance and Reinsurance⁵ provides that mediation intermediaries can only charge commissions and fees for insurance policies for which they have mediated and forbids any other form of traditional remuneration such as production incentives (volume discount) or compensation for a good claims portfolio. In this regard, unethical behaviour may appear when one insurance company offers a higher commission and the broker focuses on maximizing his income rather than offering his client the policy with the best coverage. Nevertheless, there is another source of potential risk that can distort the required ethical behaviour of insurance brokers. Specifically, we focus on the possibility of deferring the payment to insurance companies of premiums collected from clients. In this case, the broker collects the premiums payable under the client's insurance policy but does not immediately send the funds to the insurance company. Instead, the broker waits until the end of the legal period (e.g. 50 days in Australia or 30 days in Spain) and uses this money in the meantime either to make other payments related with the business or to invest in short-term assets in order to obtain an extra return. Although this practice is not illegal if it is done within the legal period, it may easily be considered as unethical behaviour on the part of the insurance broker as the (uninformed) client expects, in return for the premium paid, that the broker immediately forwards the funds to the insurance company.⁶ In this context, Directive 2002/92/EC of the European Parliament and of the Council of 9 December 2002 states that the insured has risk coverage from the time that the insured pays the premium to the broker. Consequently, the broker should advance the payment of premiums collected in case there is an incident that has to be managed by the insurance company. In brief, those insurance brokers that defer the payment to the insurer of the premiums collected from their clients have to face a trade-off between an (extra) increase in their profitability and an increase in the risk they bear.

From our point of view, a major question regarding the behaviour of brokers is whether there is a relationship between unethical behaviour and the operating performance of the brokerage firm. Of course, measuring the ethical behaviour of insurance brokers is not an easy thing to do. Nevertheless, if a broker systematically defers the payment of premiums charged to its clients in order to invest the funds in financial products such as repos and earn a financial return over and above its traditional financial sources, then a high correlation is expected between a firm's financial income and an unethical behaviour. Therefore, we proxy the (un)ethical behaviour of insurance brokers through an "ethical ratio", computed as financial income divided by sales.⁷ In this way, a higher value for the *ethical ratio* means that the insurance broker delays the payment to the insurance company of the premiums charged, indicating, moreover, that the broker assumes some risk exposure to both its client and to the insurance company, which could lead to a commercial payment affecting its profitability. It may eventually happen that these intermediaries have disputes with their clients. In this research, we investigate whether there is any relationship between the operating performance of Spanish insurance brokers and their ethical behaviour estimated through our *ethical ratio*. Unlike the US market, which is dominated by large insurance brokers [Cummins and Doherty (2006) and Doman *et al.* (1999)], the Spanish market for insurance intermediaries was characterized by small firms and a low degree of competition until the early 2000s when a process of deregulation and globalization began. The sample used in this study contains economic and financial data from the Spanish insurance intermediaries market from 2003 to 2012. The number of firms in the sample ranges from 626 in 2012 to 781 in 2008. All the data comes from the SABI dataset. In order to carry out our research, at the end of each natural year all the firms in the sample are ranked on their *ethical ratio* (financial income divided by sales), and then the sample is broken into three *ethical ratio* groups based on the breakpoints for the bottom 30% (*Low*), middle 40% (*Medium*), and top 30% (*High*).

Our results show that there is a statistically significant relationship between operating performance, some brokerage firm characteristics and the firm's ethical behaviour. Specifically, the better the performance and the larger the size of the brokerage firm, the worse the ethical behaviour. This evidence suggests that small insurance broker firms do not delay the payment to the insurance company of the premiums collected from their clients because they do not have sufficient resources to bear the increased risk of this practice. The remainder of the paper is organized as follows. Section 2 summarizes the activity of insurance mediation.

⁵Law 26/2006 of July 17, *insurance mediation and private reinsurance*.

⁶With "uninformed client" we refer to those clients who are not aware of the legal process of brokerage activity.

⁷Dividing by sales allows us to control for the firm size effect.

Section 3 reviews the evidence about ethics in insurance mediation. Section 4 describes our sample and the methodology used in the different analyses. The results are discussed in section 5 and some conclusions are offered in section 6.

2. The Activity of Insurance Mediation

Mediation in the insurance industry is subject to regulation in different countries in a context of free competition, though insurance companies are faced with more rules to protect policyholders than are brokers. If an intermediary works as an agent of the insurer, his negligence cannot be imputed to the insurance company. The term "agent" may also refer to an intermediary who exclusively sells one insurance company's products and who is identified and treated as an agent of the insurer he represents. Agents of this kind are described as "captive agents" or exclusive agents. On the other hand, an insurance broker is not a salaried insurance company employee or identified with a single insurer but is rather an independent middleman. A broker typically has contracts with a number of insurers and is compensated by way of commissions paid by the insurers with which he places coverage. Brokers are sometimes referred to as independent agents where the mere acceptance by a broker of a commission paid by an insurer is insufficient to create an agency relationship between the broker and the insurance company. As a general rule, when a broker agrees to sell a policy to a client and obtains a commission in return, the broker has a duty to the client to act with reasonable care, skill, and diligence. For the German insurance market, Eckardt (2002) suggests that insurance intermediaries reduce transaction costs and information asymmetries. Insurance brokers spend a large amount of their working time searching for information on insurance companies, products, and potential clients. In this way, insurance brokers may provide better advisory services than insurance agents as the information they provide may be of higher quality and better suited to the needs of the consumers than that of insurance agents.⁸Eckardt (2002) analyses the influence of structural variables on the quality of advisory services such as size and number of employees and finds that advisory services are influenced to some degree by the firm size and employment structure of insurance brokers, as well as by the degree of specialization on private clients.

In the US insurance market, the brokerage segment of the industry is highly concentrated, as Cummins and Doherty (2006) show, leading to a lack of competitiveness. These authors show that in most insurance transactions there is an intermediary, usually an insurance agent or broker, between the buyer and the insurer. The intermediary plays a role of "market maker", helping buyers to identify their coverage and risk management needs and matching buyers with appropriate insurers. In this case, although price is important, it is only one of several factors that clients consider when choosing which insurer(s) will provide their coverage. Cummins and Doherty (2006) find that the main distinction between independent agents and brokers is size and the range and depth of services provided. In general terms, independent agents tend to be smaller than brokers and provide services to relatively small businesses and consumers in localized markets, whereas brokers tend to service larger and more complicated business insurance needs. In this context, these authors claim that brokers play a pivotal role in providing information to prospective insurers to help them in evaluating the risk. In cases where risks are too large or complex to be insured by a single company, the broker often plays a "syndication" role, finding various insurers. An important distinction between insurance intermediation and many other markets is that (i) it is more related to quality than to price, and (ii) post-sale services are irrelevant. Most compensation for insurance intermediaries consists of a percentage of the premiums paid on each policy and many brokers also receive contingent commissions based on various performance criteria such as the profitability of the business placed with an insurer, persistency or the volume of business and revenue from clients. Thus, commissions paid for new policies are higher than for renewed ones. Fees are more common in cases where a significant part of the risk management and risk transfer arranged by the broker is not through insurance but rather through alternative risk transfer techniques such as sell-insurance and captive insurance companies. Finally, Cummins and Doherty (2006) conclude that insurers will have more confidence in the selection of risks and in the information provided by the intermediary because the information gathered by the intermediary helps to improve the efficiency of insurance markets by reducing adverse selection. In this context, Doman *et al.* (1999) show that the traditional role of brokers has been to find insurance for corporate clients, to negotiate the price and scope of coverage, and to advise clients on the design of their risk management plan.

⁸Insurance intermediaries have cost advantages compared to individual clients. They can reach economies of scale and perform fixed cost investments in human capital and technology to easily gather information about product prices, performance and terms [Traub (1994) and Rose (1999)].

Thus, most brokers make money by taking commissions from insurers on the premium paid by clients. Most recently, a massive consolidation among the distributors of commercial insurance has taken place in the US insurance market.

In the United States, as well as the United Kingdom and some other European countries, brokers dominate the distribution of commercial insurance, since in these relatively deregulated and competitive environments they can influence the choice and terms of insurers. Brokers have also begun to gain market share in such deregulating markets as Italy, Spain, and Latin America. Japan deregulated the insurance market in the late 1990s and legalized brokering, allowing the entry of global brokers into the local market. In the eurozone, the activity of insurance mediation is regulated by Directive 2002/92/EC of the European Parliament and of the Council of 9 December 2002. This directive presents set access rules for those established in a member state or those wishing to settle in. In paragraph 3 (article 1, chapter 1), insurance mediation is defined as the activity of introducing or carrying out preparatory work to the conclusion of a contract of insurance, or of concluding such contracts defined or while assisting in the administration and performance of such contracts, in particular in case of disaster.⁹ Regarding the Spanish intermediaries market and in accordance with the Spanish financial system, the activity of insurance intermediaries is subject to a single supervisor, such as the Directorate General of Insurance and Pension Funds. In this manner, Law 26/2006 of July 17 regulates insurance mediation and private reinsurance. Article 2.1 provides that the compensation received by the broker from the insurance company will be in the form of commissions that are satisfied, on the one hand, through the payment of premiums to the insurer and, on the other hand, through fees that are billed directly to the customer by the broker. Insurance brokers are requested to base their recommendations on the analysis of a sufficient number of insurance contracts available on the market-hedged risk and they have to be appropriate to meet the needs of the client.

3. Ethics in Insurance Mediation

The review of the literature in this section suggests that brokers do not always act in the best interest of clients, although they are ethically obligated to do so, as Game and Gregoriou (2014) point out. In this context, Battalio and Loughran (2008) carry out a study using data from the New York Stock Exchange and show that the main objective of brokers was to maximize their profits rather than the wealth of their clients, even in a well-regulated industry. They conclude that brokers' decisions may sometimes lead to actions that do not optimally serve their clients' interests. On the contrary, Game and Gregoriou (2014) claim that enhancing market competitiveness may help to reconcile broker and client interests. The literature on the insurance market suggests that commissions received by insurance brokers to mediate a policy may encourage unethical behaviour. A relevant question that the literature raises is whether the market is aware of the existence of unethical behaviour regarding the commissions received by an insurance broker. In particular, it has been alleged that the compensation of agents and brokers through commissions, often related to the underwriting quality or volume of business placed with an insurer, constitutes an anticompetitive practice that is detrimental to buyers [Spitzer (2004), Hunter (2004, 2005)]. Perhaps the reason is that insurance intermediaries can help insurers to economize on information and transaction costs in insurance markets, as observed by Eckardt (2007).

In this way, it is initially observed that commissions are directly linked to sales agents' ethical behaviour. Let us consider, for example, Dubinsky *et al.* (1980), who argue that salespeople often face ethical dilemmas between short-term pressures from management to meet sales quotas and long-term goals of achieving client confidence. Such dilemmas create job stress, poor sales performance, and dissatisfied customers. In this framework, Kurland (1996) examines whether commissions encourage agents to act unethically towards their clients. This author believes that an insurance broker (sometimes referred to as an "independent agent") cannot sell only the products of one company. Another important issue is the industry's reputation, especially in the life insurance industry. Notoriously, the life insurance industry has had a sallow reputation, with agents often stereotyped as high-pressure salespeople who would say anything to make a sale. In this way, Dobson (1991) argues that reputation *bridges* the conflict between wealth maximizing (i.e. technical competence) and social responsibility (i.e. fiduciary obligation to the client).

⁹ According to the preamble, paragraph 19, Directive 2002/92 EC contemplates that a member state may, in this respect, maintain or adopt more stringent dispositions to be imposed on insurance intermediaries.

In Europe, Directive 2002/92/EC of the European Parliament and of the Council of 9 December 2002 regulate insurance mediation activity. Its chapter 3, article 12, paragraph 2 states that insurance intermediaries should give advice on the basis of the analysis of a sufficient number of insurance contracts available on the market so that they can make a recommendation, following professional criteria, regarding which insurance contract would be appropriate for needs of the client.

Moreover, paragraph 4.a establishes that the amounts paid by the client to the intermediary are considered as paid to the company, while the amounts paid by the company to the intermediary will not be considered paid until the client actually receives them. The aforementioned directive also states that the collected premiums paid by the client to the broker have to be quickly transferred to the insurance company in case there is an incident that has to be managed by the insurance company. In the event of a claim, the European Directive establishes that the payment of the claim will be through banking transfers to the broker. However, it is probable that the insurance company will use bank checks, which eliminate the possibility of unethical action by the broker, and the client actually receives the payment for the compensation claim quickly. In Spain, the market for insurance intermediaries has been traditionally characterized by the presence of small enterprises. Nowadays, and as a consequence of globalization, large size mediation insurance companies have appeared in the Spanish market. As a result, larger companies broker the most complex and highest risks but smaller companies deal with lower risks. Simultaneously, competition in the Spanish intermediation market has increased with the incorporation of banc assurance. In this framework, Azofra-Palenzuela *et al.* (1999) suggests that nowadays there is a new trend in how insurance services are channelled. These new channels to market are the branches of banks and saving banks. Banks have experienced reductions in their traditional sources of profits that have forced them to look for new products to commercialize. Furthermore, banks have accumulated information about their clients that they can use to improve either product commercialization or risk assessment.

4. Sample and Methodology

Our initial sample consists of all the insurance broker firms in Spain that appear in the SABI database from 2003 to 2012.¹⁰ In this way, we cover five pre-crisis and five crisis years. For a broker firm to remain in the final sample of a natural year, it needs to have information on financial income and sales so the *ethical ratio* can be computed for that year. The necessary economic and financial information for this research comes from the SABI database. As explained above, if a broker firm systematically defers the premiums charged to its clients in order to invest in short-term financial assets, then a high financial income is expected for that firm. We proxy the (un)ethical behaviour of insurance brokers through an *ethical ratio*, computed as financial income divided by sales. At the end of each natural year all the firms in the sample were ranked on their *ethical ratio* and then we broke the sample into three *ethical ratio* groups based on the breakpoints for the bottom 30% (*Low*), middle 40% (*Medium*), and top 30% (*High*). Therefore, for a natural year the *Low* group comprises the 30% of the insurance brokers with better ethical behaviour whereas the *High* group comprises the 30% of the insurance brokers with worse ethical behaviour. Table 1 summarizes the empirical proxies we use in order to measure operating performance. Some comments are needed regarding the computation of the empirical proxies. A common way to measure profitability is by using the following three measures: return on sales (ROS), return on assets (ROA), and return on equity (ROE), which refer to earnings before interest and tax (EBIT) by sales, assets and equity, respectively. In computing sales efficiency (SALEFF) and income efficiency (INEFF) we deflate the sales revenue and income data, respectively, using the appropriate GDP deflator. As a consequence of the well-known asymmetry of accounting ratios, and as is common in the literature, we calculate the median of each variable for the full sample and groups formed as stated above. We test whether the median difference in variable values between the *High* and *Low* ethical ratio groups is zero. In order to measure the statistical significance of the change in the variables we use the Wilcoxon signed-rank test.

¹⁰SABI dataset is released by Bureau van Dijk Electronic Publishing.

Table 1: Economic Characteristics and their Empirical Proxies Examined for Insurance Brokers

Characteristics	Proxies
Profitability	Return on assets (ROA) = EBIT/Average total assets Return on equity (ROE) = EBIT /Average total equity Return on sales (ROS) = EBIT/Sales
Operating efficiency	Sales efficiency (SALEFF) = Real sales/Total employment Income efficiency (INEFF) = EBIT/ Total employment
Employment	Total employment (EMPL) = Total number of employees
Leverage	Total debt to total assets (TDTA) = Total debt/Total assets
Liquidity	Current assets to current liabilities (CACL) = Current assets/ current liabilities

Table 2 exhibits summary statistics for the full sample (Panel A), *Low* (Panel B) and *High* (Panel C) *ethical ratio* groups of insurance brokers. In order to avoid any bias induced from extreme values we show median values for all the variables except for the sample size, which is defined as the number of insurance brokers in the group. Panel A shows how the financial crisis has affected the insurance broker industry in Spain as the number of brokerage firms increases during the pre-crisis period until 781 firms in 2008 and then decreases after that until reaching 626 firms in 2012 (the lowest number in our ten-year study horizon). Comparing *Low* (better ethical behaviour) and *High* (worse ethical behaviour) ethical ratio groups (Panel B and C, respectively) samples show some interesting features. For example, firms in Panel C are bigger than firms in Panel B. As a consequence, sales and financial income of firms in Panel C are also greater than sales and financial income of firms in Panel B. If a broker's business operations are similar regardless of firm size, then a similar ratio of financial income divided by sales would be expected for both groups. However, this ratio is between 50 (year 2005) and 68 (years 2007 and 2008) times larger for firms in Panel C than for firms in Panel B. From our point of view, this evidence is consistent with the fact that large broker firms have enough resources to deal with the risk of holding onto premiums collected from clients for the maximum period allowed. Therefore, large broker firms have more incentive to delay forwarding the payment of the premiums to the insurance company than small broker firms, which could suffer financial distress in the event of an incident. Consistent with this evidence, Eckardt (2002) finds that broker's advisory services are influenced to some degree by firm size.

Table 2: Summary Statistics for the Full Sample of Insurance Brokers and Classified by Low and High Ethical ratio

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Panel A:	Full Sample									
Sample size	698	663	680	711	657	781	751	631	695	626
N. of employees	4	4	4	4	5	4	4	4	4	4
Total assets (thousand €)	272.95	302.96	292.25	310.32	354.53	295.85	325.90	398.22	340.32	341.86
Sales (thousand €)	253.12	267.97	271.64	276.20	333.49	282.29	274.07	315.14	277.29	284.63
Financial income (thousand €)	0.79	0.80	0.90	1.14	2.01	1.75	0.97	0.94	1.02	1.02
Ethical ratio (%)	0.34	0.28	0.32	0.40	0.63	0.60	0.33	0.28	0.32	0.36
Panel B:	Low ethical ratio									
Sample size	209	199	204	213	197	234	225	189	208	188
N. of employees	3	3	3	3	4	3	4	4	3	3.50
Total assets (thousand €)	160.98	183.60	159.19	150.16	197.48	144.33	195.65	210.83	205.38	192.22
Sales (thousand €)	213.71	212.97	192.92	194.73	233.90	203.92	214.83	271.93	213.45	217.18
Financial income (thousand €)	0.09	0.07	0.07	0.07	0.13	0.10	0.08	0.10	0.08	0.08
Ethical ratio (%)	0.04	0.03	0.04	0.04	0.05	0.05	0.04	0.04	0.04	0.04
Panel C:	High ethical ratio									
Sample size	209	199	204	213	197	234	225	189	208	188
N. of employees	4	5	5	5	6	5	4	5	5	4
Total assets (thousand €)	455.38	578.91	587.65	596.37	800.53	662.03	602.09	760.89	716.36	677.22
Sales (thousand €)	336.16	404.15	435.16	438.67	546.66	456.80	347.24	389.58	567.95	367.61
Financial income (thousand €)	7.46	7.57	8.52	12.60	17.10	17.80	9.41	9.71	10.07	9.56
Ethical ratio (%)	2.08	1.86	1.99	2.61	3.38	3.38	2.25	2.17	2.55	2.61

Notes: (i) The ethical ratio is computed as financial income divided by sales. (ii) Low ethical ratio group comprises the 30% of firms in the sample with the lowest ethical ratio. (iii) High ethical ratio group comprises the 30% of firms in the sample with the highest ethical ratio.

5. Results

Table 3 exhibits the median values for *Low* ethical ratio broker firms (better ethical behaviour) in Panel A, *High* ethical ratio broker firms (worse ethical behaviour) in Panel B and median differences for each variable we employ to proxy operating performance from 2003 to 2012 (Panel C). Though we do not find significantly better profitability for *High* ethical ratio firms when it is measured through ROE and only slightly significant evidence when using ROA, we do find that ROS median values are significantly higher for *High* ethical ratio firms than *Low* ethical ratio firms in nine of the ten years of our horizon of study (see Panel C). We also find that *High* ethical ratio firms (firms with worse ethical behaviour) are statistically more efficient (see SALEFF and INEFF variables), have a lower leverage (TDTA) and a better liquidity position than *Low* ethical ratio firms. These results are consistent for the whole time horizon studied.

As Eckardt (2002) found for the German insurance market, our evidence suggests that firms belonging to the High ethical ratio group are able to reap economies of scale and scope in the intermediation process.

Table 3: Median Values and Differences in Medians for Proxy Variables of Operating Performance of Low and High Ethical Ratio Groups

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Panel A: Low ethical ratio group										
ROA	0.07	0.08	0.07	0.06	0.07	0.06	0.04	0.07	0.02	0.02
ROE	0.26	0.25	0.24	0.20	0.23	0.18	0.13	0.19	0.07	0.09
ROS	0.06	0.06	0.06	0.05	0.06	0.05	0.03	0.06	0.02	0.02
SALEFF	59877.4	53526.9	55305.9	52467.0	61217.6	58177.6	56477.1	64988.9	58625.4	58801.3
INEFF	2203.63	3267.77	2753.40	2031.14	3531.84	2341.37	1603.21	3734.69	845.08	1128.14
TDTA	0.48	0.43	0.35	0.33	0.76	0.32	0.34	0.36	0.32	0.18
CACL	1.05	1.32	1.14	1.11	1.19	1.22	1.19	1.30	1.10	1.14
Panel B: High ethical ratio group										
ROA	0.08	0.10	0.08	0.08	0.10	0.08	0.06	0.08	0.04	0.04
ROE	0.23	0.26	0.26	0.20	0.24	0.18	0.14	0.17	0.07	0.07
ROS	0.14	0.14	0.13	0.14	0.17	0.12	0.09	0.13	0.07	0.08
SALEFF	68938.7	66621.2	69835.2	69904.3	79467.8	81307.3	73048.5	70951.3	73110.1	74879.5
INEFF	5400.82	7195.04	7662.64	6398.60	9933.04	73096.43	5180.19	8057.54	4067.78	4556.58
TDTA	0	0	0	0	0	0	0.15	0.13	0.08	0.03
CACL	1.23	1.30	1.27	1.35	1.58	1.72	1.57	1.99	2.13	2.38
Panel C: (High – Low) ethical ratio groups										
ROA	^c 0.01	0.02	0.01	0.02	^a 0.03	0.02	0.02	0.01	^b 0.02	0.02
ROE	-0.03	0.01	0.02	0.00	0.01	0.00	0.01	-0.02	0.00	-0.02
ROS	^a 0.08	^a 0.08	^a 0.07	^a 0.09	^a 0.11	^a 0.06	^a 0.07	0.06	^a 0.05	^a 0.06
SALEFF	^a 9061.4	^a 13094.	^a 14529.	^a 17437.3	^a 18250.2	^a 23129.7	^b 16571.4	-5962.31	^b 14484.7	^b 16078.1
INEFF	^a 3197.2	^b 3927.3	^a 4909.2	^a 4367.4	^a 6401.2	^a 4968.0	^a 3576.9	^a 4322.8	^a 3222.7	^a 3428.4
TDTA	^a -0.48	^b -0.43	^b -0.35	^a -0.33	^a -0.76	^a -0.32	-0.19	^c -0.23	^b -0.24	^b -0.15
CACL	^a 0.18	^a -0.02	^c 0.13	^a 0.24	^a 0.39	^a 0.50	^a 0.38	^a 0.69	^a 1.03	^a 1.24

Notes: (i) See Table 1 for proxy variables definition. (ii) a, b, c Significantly different from zero at the 1%, 5% and 10% level, respectively

6. Conclusions

This paper attempts to analyse whether there is a relationship between the ethical behaviour of Spanish broker firms in the insurance industry and their operating performance. Certainly, measuring the ethical behaviour of insurance brokers is challenging. We focus on a usual practice which consists in deferring the premiums charged to clients in order to invest them in short-term financial products and, as a result, gain an extra financial return in addition to their traditional sources of income. We consider this practice to be an unethical behaviour since uninformed clients, that is, those who are not aware of the legal process of brokerage, expects the broker to immediately process the policy with the insurance company once the premium has been paid. In this context, a correlation is expected between a firm's financial income and this unethical behaviour. In this context, we proxy the (un)ethical behaviour of insurance brokers through an "ethical ratio" computed as financial income divided by sales.

In this way, a higher value for the *ethical ratio* means that the insurance broker delays payment to the insurance company of the collected premiums. Note that this practice leads to the broker assuming some risk exposure since if an incident happens before the premium is forwarded to the insurance company, the brokerage firm may suffer financial distress. Our results show that firms with worse ethical behaviour (that is, those with a higher *ethical ratio*) are bigger companies that experience a statistically greater profitability (measured as return on sales), better operating efficiency (measured either through real sales to total employees or income to total employees), and higher liquidity (measured through current assets to current liabilities) than those firms with better ethical behaviour (lower *ethical ratio*). As well, we find that they have significantly lower leverage.

Therefore, our evidence suggests that there is a statistically significant relationship between operating performance and some firm characteristics (such as size) and the broker firm's ethical behaviour. That is, the better the performance and the larger the firm size, the worse the ethical behaviour. Though it will need further research, in our opinion the ethical or unethical behaviour of insurance brokers is a matter of means, that is to say, firms will behave unethically if they can.

7. References

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