

# From customer motivation to corporate performance. The role of strategic factors and distribution channels of financial service firms

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**Abstract** This research analyzes the relationship between strategic factors and distribution channels and the performance of financial service firms, based on the theory of distribution channels and the resource-based view. Using structural equation modeling, the study examines a sample of 252 insurance firms operating in the Iberian Peninsula. The empirical analysis provides conclusive evidence that strategic factors have an influence on the firm's distribution channels and performance. It also confirms that internal and external determinant factors as well as customer motivation have an influence on strategic factors.

**Keywords** Strategic factors · Distribution channels · Performance · Insurance firms

## 1 Introduction

The importance of insurance activity is unquestionable for businesses, firms and individuals in enabling, among other aspects, and the protection of property and individuals when unforeseen situations occur. It allows the costs of occasional adverse events to be shared by many. Financial service firms such as banks and insurance firms provide products and services for individuals and firms. Banks act as intermediaries between the depositors and the investors, while the insurance business is mainly based on the premiums received from customers.

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Globalization presents insurance firms with enormous challenges in terms of competitive pressure, the range of products they offer, and the quality of their distribution channels. Klumpes (2004) maintains that the choice of distribution channels can affect the performance of insurers in related markets. Due to the increased competitiveness of these markets, there is a need to change the coordination of distribution channels into long-term partnerships (Teece 1992). Brown et al. (1995) also demonstrate the importance of the competitiveness of the insurance market and distribution channels in shaping performance.

In order to ensure the right conditions for success, insurance firms enjoy certain strategic resources. The literature identifies such resources as the type and number of distribution channels, financial resources, human resources, mechanisms to integrate and manage underwriting risk and reinsurance risk, and innovation (Coelho and Easingwood 2003; Siebenhüner and Arnold 2007; Mougeot and Naegelen 2009). Several authors highlight the need to extend knowledge on the relation between distribution channels and firm performance (Aulakh and Kotabe 1997; Coelho and Easingwood 2008).

This research is supported by the theory of distribution channels (Stern et al. 1996) and the resource-based view (Prahalad and Hamel 1990; Das and Teng 2000) in an effort to take a closer look at the relation between the distribution channels of insurance firms, strategic factors and performance. The objectives of the study are to evaluate the effect of strategic factors on distribution channels, and how distribution channels influence performance. It also assesses the influence of strategic factors on performance and how the type of products, motivation of customers and internal and external factors affect the strategy of insurance firms, and providing important contributions to literature and contains implications for businesses. It allows for a better understanding of how strategic factors relate to distribution structures (number and integration), and how strategic factors and distribution structures influence the performance of insurance firms. The analysis of the choice of channel type leads to an assessment of the role of customer motivation, which influences strategic factors, thereby impacting the profitability and productivity of the firm. Another major contribution of the paper lies in the suggestion that a focus on firm growth is associated with the choice of channel, and leads to lower return on sales.

The organization of the paper is as follows. Following the introduction, the second section provides a review of the literature. Section 3 focuses on the conceptual model and methods, presenting the research model and hypotheses, constructs and variables, as well as data collection and methodology. Section 4 contains the empirical results, while a discussion of the results is presented in Sect. 5, and the final section is devoted to the conclusions and presentation of the contributions and future lines of research.

## 2 Literature review

### 2.1 Strategic factors

The strategic factors support the business activity. The management of insurance firms differs due to the inversion of the productive process, as revenue is obtained

before the supply of goods and incurred costs. The customers and the normative context are contributing factors to the competitive evaluation of the insurer market (Cercola and Coletti 1996). Frazier (1999) mentions the need to know the structure of the distribution channels and their relationship with the performance of insurance firms, and Tsay and Agrawal (2004) consider the multichannel distribution option to be the best in attending to the needs of customers, who are increasingly sensitive to the effect of accumulated satisfaction.

Within this framework, insurers traditionally sell products through brokers and individual agents who are not affiliated to the firms. However, given the greater competition, insurance firms also adopt other external distribution channels, such as call centers, banking channels, and the Internet. Each channel has benefits and drawbacks. The choice of brokers has the advantage of greater technical skills but the service is less personal and operations are more focused. From the perspective of the individual agents and brokers, customer loyalty is focused on their activity and not on the insurance firm, leading to poor control and higher intermediation costs. The use of call centers has direct impact on sales, but presents difficulties in customer loyalty. With banking channels, the insurance firm obtains higher profitability due to lower costs but, in order to maintain customer loyalty, the insurance firm needs a larger structure. The Internet facilitates the interaction between firm and customer, and increases the speed of adjustment of the contract terms; however, there is still little culture and limited experience in the use of this type of channel. The low purchase frequency encourages firms to rethink the channels to be used. In the case of high frequency, it becomes important to adjust and control the distribution channels (Bucklin et al. 1996; Majumdar and Ramaswamy 1995). Coelho and Easingwood (2005) draw attention to the use of multiple channels associated with the process of customer segmentation.

The resource-based view (Prahalad and Hamel 1990; Das and Teng 2000) involves conditions of competitiveness that influence distribution channels and performance in a highly competitive market. This market requires insurance firms to use increasingly complex resources to avoid limitability and obtain a competitive advantage. Such resources can be physical, human, financial, organizational, and technological capabilities, and are intangible (Mahoney and Pandian 1992).

The distribution channels theory (Stern et al. 1996) refers to interdependent organizations that offer products and services. These organizations allow access to customers and intermediate networks to create a competitive advantage (Coughlan et al. 2001; Wilkinson 2001). The choice of distribution channels is dependent upon the type of product (Anderson and Coughlan 1987). For example, for life and financial risk products, insurance firms tend to use bank networks (either banks that incorporate insurers or with whom the insurance firms have partnerships), while very simplified price-based products have a natural propensity to use the Internet channel. In turn, the distribution channels are profoundly affected by financial resources (Majumdar and Ramaswamy 1995; Rangan et al. 1992). Firms with no experience of implementation and control of direct channels should choose indirect channels. This occurs in firms that want to develop the insurance business or firms that intend to move into new markets in which they have no experience. In order to prevent the risks of investing in infrastructure, for example, insurance firms may

choose to use individual independent agents. With regard to the management of the channel, Stern et al. (1996) show the need to know its structure and the effect of strategic factors.

Durvasula et al. (2004) highlight the importance of service experience based on the satisfaction of the customer's needs. Their loyalty behavior boosts activity, which implies learning with the customer to understand the conditions of satisfaction (Ball et al. 2004; Bolton 1998). The supply of financial products and insurance is associated with the type of channel to serve several customer segments (Beckett 2000; Coelho and Easingwood 2005). The choice options of the channel are dynamic and depend on various factors (Payne and Frow 2004). According to Kimber (2001), it is important for firms to adapt to their customers and to different channels. Weiss et al. (2003) believe it is critical to understand how the channels provide value to the customer. However, the distribution channel of insurance firms is associated with the supply of products (Howcroft and Lavis 1984). In turn, basic banking services, credit services, and general insurance are conceived as simple and life insurance, and pensions and investment funds as complex services (Devlin 2001). Howcroft and Lavis (1984) base the mix of channels in the market position with profitable customers, in new means of distribution, in flexible and varied systems in order to answer to the competition and do so by maximizing the exploitation of these channels. Also, many aspects require a decision regarding the strategic factors in the choice or modification of a distribution channel (Stern et al. 1996).

## 2.2 Type of products

The products of insurance firms are typically of a financial nature (the collection of premiums versus the payment of claims) and are typically identified with providing a security that is not immediately used, in contrast to its immediate counterpart, the premiums (Cruz 2000). The type of product is crucial in the insurance market because the choice of life or non-life has a direct influence in legal terms, on capital requirements and solvency requirements. This decision also affects distribution channels (Arena 2008) due to its specificities, level of underwriting, and level of claim settlement, which is more adequate in certain distribution structures than in others (Choi and Weiss 2005; Durvasula et al. 2004). Besides the implications in the capital required, the type of products has strategic implications for technical requirements, which implies an investment in human resources, risk management, and innovation processes (Arena 2008; Gamarra-Trigo 2008). Trust and corporate image distinguish the products of financial and insurance firms from other industries (Maas and Graf 2008).

## 2.3 Customer motivation

The behavior of customers in the acquisition of insurance products arises from the satisfaction of maximizing savings or from the need for general protection. Yet, behind each purchase, there are motivations sustained by latent needs. Wallace et al. (2004) refer to the importance of customer loyalty in the generation of profits.

According to Gupta et al. (2006), customers are the ones who ensure income and market value, which is why organizations should focus on customer acquirement, retention and cross-selling, related to needs, convenience, and trust. Trust influences results and makes behavior predictable (Pérez and Descals 1999). For insurance firms, loyalty represents greater activity and therefore better results (Ball et al. 2004).

Shah et al. (2006) emphasize the customer, in terms of the contribution to value creation for both the customer and the firm. This perspective leads Coelho and Easingwood (2005) to recognize the importance of firms who use multiple channels to serve different segments with adjusted value propositions. In order to answer to the motivation of customers and satisfy their needs, Balasubramanian et al. (2005) and (Martin-Consuegra et al. 2007) highlight the importance of the distribution channels of insurance firms in the long-term. Monitoring customer satisfaction in the insurance sector should decrease the risk of canceling policies and reduce the negative impact of risk on margins (Guillén et al. 2008).

## 2.4 Determinant factors

The insurance industry is strongly competitive and is rapidly moving toward maturity. Internal and external determinant factors help or harm the firm with regard to competition. In the case of insurance firms, internal factors condition the organizational structure and other aspects of the organization, thereby affecting strategic factors and distribution channels (Cespedes 1998). The levels of market concentration and claims demand resources and compete for a greater innovation capacity and higher attention to the risk of underwriting.

Stern and Reve (1980) examine the factors applied to distribution channels and their relation to the strategic factors of organizations. Achrol and Stern (1988) connect external factors with diversity and market concentration, among other aspects related to firm performance. The external factors and the insurance business are strongly conditioned by the legal framework because they are associated with the structural characteristics of firms with reflections on long-term market profitability (Cruz 2000). According to Cespedes (1988), this has implications for managerial decisions that have an effect on the internal factors and determine the competitive position of the firm. The dispute for market leadership is assumed to be mostly based on turnover and price (tariffs and premiums), leading to particularly aggressive behaviors in the quest for a strong position, namely from the largest national and foreign insurers operating in the market (Cruz 2000). We focus on the main external factors, such as price, average claims, market concentration, and legislation. The internal factors include information systems, image, cost control, and organizational structure.

## 2.5 Distribution channels

Distribution channels, whether they are single or multichannel, are key to the development of the insurance business, as well as to the relationship with customers, with effects on organizational structure and performance. Several authors observe

the importance of the strategic choice of distribution channels to the performance of insurance firms (Durvasula et al. 2004; Ball et al. 2004; Rootman et al. 2008). Technological evolution is reflected in new channels, conferring greater competition to the activity of insurance firms (Flier et al. 2001; Hughes 2006). The channel refers to the contact network where the organization operates in order to achieve distribution objectives (Achrol et al. 1983; Bichou and Bell 2007). The strategy based on the single channel has decreased in importance when compared to multichannel, hence the need to clarify the determinants of the multichannel strategy (Coelho and Easingwood 2005). The multichannel strategy focuses on the contact network to satisfy customers and increment competitive advantages, involving the mix of channels and the way they are coordinated and integrated (Coelho et al. 2003; Payne and Frow 2004).

The expectations and preferences of customers for distribution channels are distinct in international markets (Biergelen et al. 2006), hence the importance in understanding the behavior and objectives of customers in a multichannel environment (Balasubramanian et al. 2005). In this global environment, high pressure from competitors means that channels need to be efficient and guarantee corporate identity (Parment 2008; Rosenbloom 2007). Frazier et al. (1989) consider the market structure to be a key factor characteristic of distribution channels. To Berman and Thelen (2004), the development of the multichannel strategy implies knowing the multichannel cross-selling opportunities, product adaptation and the portfolio strategy of each channel, the price in the various channels, the image of channels, the contribution to the return on assets, and the conditioning of the relation between customer and supplier to expand the portfolio of products through new channels. According to Kim and Frazier (1996), the external environment of the distribution channel and the internal environment relative to its specificities are identified.

Coelho et al. (2003) mention the possibility of firms choosing more popular single channels or multiple channels. Multiple channels, despite being highly demanding in terms of coordinating the value chain, are increasingly important to the performance of insurance firms (Frazier 1999; Gamarra-Trigo 2008). Due to the fact that it integrates different channels, the multichannel strategy is used with the goal of widening the activity of insurance firms (Gassenheimer et al. 2006; Webb and Hogan 2002).

The performance difference among firms is associated with the industry structure (Mehra 1996) and its specific resources (Combs and Ketchen 1999). The effect of distribution channels on performance requires knowing the customers' preference for those channels (Gensler et al. 2007). The distribution channels, according to Reibstein and Farris (1995), influence the level of activity of insurance firms.

Coelho and Easingwood (2008), and Gassenheimer et al. (2006) admit the lack of knowledge on the adoption of multichannel strategies, namely the importance of the type of channel, the way they are structured and performance conditions. There are divergences regarding satisfaction in multichannel experiences (Shih and Venkatesh 2004). Coelho et al. (2003) admit the effect of the long-term performance of the channel in the management of the distribution channels.

## 2.6 Performance

The performance of the firms, including insurance firms, is greatly affected by the performance of the distribution channels, which refers to the ability to increase activity and expand the market share for the same level of customer service (Aulakh and Kotabe 1997). Productivity measures the proportion of consumed resources in relation to developed processes (Klumpes 2004). Etgar (1978) and Garver (2003) believe that the efficiency of distribution channels is fundamental in identifying opportunities to improve performance. In many cases, performance is expressed through asset growth, sales growth, and return on assets (Peters and Waterman 1982).

According to Berman and Thelen (2004), profitability indicators of the firm and sales growth are linked to multichannel strategies. For Durvasula et al. (2004), trust and customer satisfaction with the product have effects on the profitability of the firm. In the insurance industry, customer loyalty decreases the risk of canceling policies and minimizes the impact of risk on the return on sales (Guillén et al. 2008).

Different authors (Coelho et al. 2003; Guillén et al. 2008; Hyvönen and Tuominen 2007; Kabadayi 2007) use several performance indicators, namely return on assets, return on sales, sales growth, and productivity in order to evaluate the influence of the distribution channel in organizations. To Wiersema and Bantel (1992) performance is determined mainly by market share, investment intensity, structure and organization of the firm, and the management team. Woo and Willard (1983) use Return on Investment (ROI), Return on Sales (ROS), sales growth and cash flow, while Buzzell and Gale (1987) focus on sales profitability, investment profitability, and equity profitability as performance indicators of insurance firms.

## 3 Conceptual model and methods

### 3.1 Research model and hypotheses

The model relates strategic factors, distribution channels, and performance. Strategic factors are influenced by the type of products, customer motivation, and internal and external determinant factors (Fig. 1).

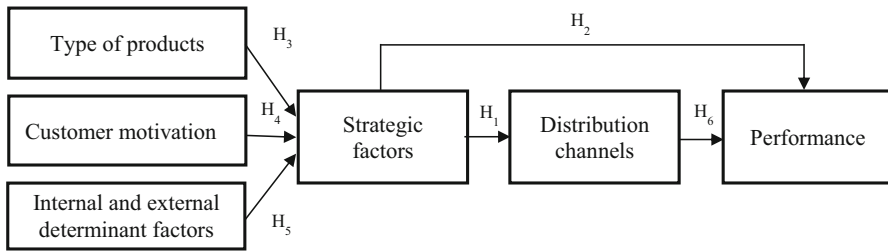
Based on the literature, we propose the following hypotheses:

**Hypothesis 1** Strategic factors influence the number of distribution channels and channel integration.

**Hypothesis 2** Strategic factors influence ROE, ROS, productivity, and sales growth in different ways.

**Hypothesis 3** The type of products chosen by insurance firms influences strategic factors in different ways.

**Hypothesis 4** The legal needs of customers and needs for prevention and safety, customer convenience and customer confidence in insurers influence the strategic factors of insurance firms in different ways.



**Fig. 1** Research model

**Hypothesis 5** Internal and external determinant factors influence the strategic factors of insurance firms.

**Hypothesis 6** The number of the distribution channels channel integration, and influence the performance of insurance firms.

### 3.2 Constructs and variables

#### 3.2.1 Strategic factors

The five variables related to strategic factors (STRAFCT) are channels used (Channels), financial resources (Finaresc), human resources (Humaresc), subscription risk (Risk), and product and service innovation (Innova). These variables are measured using a Likert scale from 1 (very little) to 5 (very high), except for Risk, which was measured using a Likert scale from 1 (disagree) to 5 (agree).

*Channels* refer to whether the number of channels used is crucial to the success of the insurance firm (Mehta et al. 2002; Coelho and Easingwood 2003).

*Finaresc* refers to whether the financial resources are key to the success of the insurance firm (Berger et al. 1999).

*Humaresc* refers to whether the human resources are critical to the success of insurance firms (Senge 2000; Siebenhüner and Arnold 2007).

*Risk* considers the items use of subscription manuals, exceptions to rules due to commercial reasons, monitoring of subscriptions versus claims, audits to subscription and management of reinsurance risk (Froot 2007; Mougeot and Naegelen 2009). The average of the responses for each item was used.

*Innova* refers to the impact of innovation on cross-selling and number of acquired products (loyalty) (Barras 1986; Epetimehin 2010) using the average of the responses.

#### 3.2.2 Type of products

The types of products (TYPRO) are: life insurance and non-life insurance (Arena 2008; Beck and Webb 2003; Cruz 2000). We use a dichotomous nominal variable (0 and 1).



### 3.2.3 Customer motivation

The three variables that identify customer motivation (CUSTMOT) are: product necessity (Necessity), convenience (Convence), and confidence (Confiden). These variables are measured using a Likert scale from 1 (very weak) to 5 (very strong).

*Necessity* comprises two items, which are the need to fulfill legal obligations and the need for prevention and security as motivations for acquiring insurance (Hong and Tam 2006) using the average of the responses.

*Convence* refers to the convenience (accessibility and availability) of the distribution channels used by customers (Soureli et al. 2008; Liu and Wu 2007) using the average of the responses.

*Confiden* comprises the influence on customers' confidence of three items: number of years with the insurance firm, number of products and number of complaints (Soureli et al. 2008; Liu and Wu 2007) using the average of the responses.

### 3.2.4 Determinant factors

The determinant factors are composed of internal factors and external factors (IMPFACT). The four variables that identify internal determinant factors are costs (Costs), organizational structure (Struct), information systems (Inftechn), and corporate image (Copimage). The four variables that identify the external determinant factors are claims (Claims), market concentration (Mkconcent), price (Price), and legislation (Legstion). All factors are measured using a Likert scale ranging from 1 (very little) to 5 (very high).

*Costs* consider the impact of costs on the activity of insurance firms (Gamarratrigo 2007; Shank and Govindarajan 1997).

*Struct* considers the impact of organizational structure on activity (Coelho and Easingwood 2008).

*Inftechn* considers the impact of information systems on activity (Cruz 2000; Payne and Frow 2004).

*Copimage* considers the impact of corporate image on activity (Liu and Wu 2007; Morgan and Rego 2009).

*Claims* consider the impact of unpredictability of claims on the firm's activity (Cruz 2000).

*Mkconcent* considers the level of market concentration where the activity of the firm is developed (Achrol and Stern 1988; Donsimoni et al. 1984).

*Price* Considers the impact of price changes on the firm's business (Choi and Weiss 2005).

*Legstion* considers the impact of legislation changes on the activity of the firm (Pontremoli 2002; Siebenhüner and Arnold 2007).

### 3.2.5 Distribution channels

The variables that identify distribution channels (DISTSTRCT) are: the number of channels (Channel), ranging from one channel (single channel) to more than 5

channels (Coelho and Easingwood 2005; Gamarra-Trigo 2008; Tsay and Agrawal 2004), and channel integration (Integrat), which considers the contribution of channel integration to obtaining greater loyalty from customers (Coelho and Easingwood 2003; Frazier 1999), using a Likert scale ranging from 1 (very little) to 5 (very high).

### 3.2.6 Performance

The four variables that identify performance (PERFMC) are: return on sales (ROS), return on equity (ROE), sales growth, and productivity.

*ROS* is determined by the relationship between net profit (NP) and the volume of insurance premiums (Vp) (Buzzell and Gale 1987).

*ROE* is determined by the relationship between NP and equity (E) (Chaganti and Damanpour 1991; Wan and Yiu 2009).

*Salesgrow* is determined by the relationship between the sales pertaining to a year ( $n$ ) and those of the previous year ( $n-1$ ) (Hyvönen and Tuominen 2007; Wan and Yiu 2009).

*Productivity* is determined by the relationship between the volume of insurance premiums (Vp) and the number of workers (Nw) (Klumpes 2004; Mehta et al. 1996).

### 3.2.7 Data collection and methodology

From a universe of 431 insurance firms, the study consisted of a sample of 252 firms including 55 operating in the Portuguese market and 197 firms operating in Spain. There were no restrictions to dimension, age, or type of firm. Answers were provided by supervisors of information management and institutional communication areas. The sample was collected between March and May of 2009, for the period 2005–2007, via electronic questionnaire. The Associação Portuguesa de Seguradores (APS) and the Asociación Empresarial del Seguro (UNESPA) sent a prior letter to all associated firms. The Instituto de Seguros de Portugal (ISP) and the Dirección General de Seguros y Fondos de Pensiones (DGSFP) supplied the quantitative database, from the three-year period. Structural Equation Modeling methodology (SEM) and software AMOS were used. To obtain more details on the relationships between variables, we also used the  $t$  test, the Mann–Whitney test (Tables 1, 2), K–S test, and Chi-square test.

## 4 Empirical results

### 4.1 Descriptive statistics

The sample is made up of 60 % non-life insurers, 23 % life insurers, and 17 % insurers who sell both life and non-life products. The average age of insurance firms is 38 years, and ranges from 3 to 136 years. Multichannels were used by 52 % of

**Table 1** Mann–Whitney test—type of products and strategic factors

	Mann–Whitney U	Wilcoxon X	Z	<i>p</i> value
Strategic factors	4,132	20,603	−4.562	0.000
Channels	4,727.5	21,198.5	−3.689	0.000
Financial resources	3,998	20,469	−5.186	0.000
Human resources	4,273	20,744	−4.597	0.000
Underwriting risk	4,235	20,706	−4.389	0.000
Reinsurance risk	4,301.5	20,772.5	−4.268	0.000
Innovation	3,946	20,417	−5.046	0.000

**Table 2** Mann–Whitney test—distribution channels and performance

	Mann–Whitney U	Wilcoxon X	Z	<i>p</i> value
Average ROS (2005–2007)	6,568	14,953	−2.361	0.018
Average ROE (2005–2007)	6,300	13,926	−2.824	0.005
Average productivity (2005–2007)	5,443	13,069	−4.306	0.000
Average sales growth (2005–2007)	7,173	14,799	−1.315	0.189

the firms from the sample and 48 % of the sample used a single channel. The average size in terms of turnover is 249,433 euros.

We can observe that STRAFCT shows high reliability and consistency ( $\alpha = 0,981$ ) (Hill and Hill 2008; Pasquali 2003; Perterson 1994). In turn, CUSTMOT shows variables with a positive correlation and variables with a negative correlation, the latent variables of external motivations of customers present high reliability ( $\alpha = 0,902$ ) and internal motivations of customers have acceptable reliability ( $\alpha = 0.745$ ). The variables that constitute the IMPFACT show high reliability and consistency ( $\alpha = 0.907$ ). DISTSTRCT are composed of variables with a positive correlation identified by external distribution channels ( $\alpha = 0.522$ ) and variables with a negative correlation identified by internal distribution channels (i.e., own branches) ( $\alpha = 0.544$ ), do not measure each factor satisfactorily. Finally, PERFMC shows high reliability and consistency ( $\alpha = 0.810$ ).

#### 4.2 Exploratory statistics

A relation which proves to be significant (though negative) occurs between the strategic factors variables and single channel ( $r = -0.472$ ;  $p = 0.000$ ), and a positive relation exists between the strategic factors variables and the multichannels ( $r = 0.530$ ;  $p = 0.000$ ). Insurance firms that value strategic factors the most value multichannels and channel integration (Integrat) variables more than variables related to internal channels ( $r = 0.937$ ;  $p = 0.000$ ). Accordingly, insurance firms that value strategic factors the most lend more importance to the access to multichannels and to channel integration and less importance to having a single channel. The channels that the insurance firms value the most are the banks, the

Internet, and telephone, while the least valued are post offices and brokers, and their own branches. The Mann–Whitney test supports the idea that strategic factors are more important to organizations using a multichannel strategy.

There is a positive, significant relation between the strategic factors and ROE ( $r = 0.286$ ;  $p = 0.000$ ), productivity ( $r = 0.414$ ;  $p = 0.000$ ), and sales growth ( $r = 0.142$ ;  $p = 0.024$ ). A significant negative relation is shown between the variables of strategic factors, except for channels, and ROS ( $r = -0.155$ ;  $p = 0.014$ ). Therefore, insurers who value strategic factors the most present better ROE, productivity, and sales growth. However, those who value strategic factors the most, with the exception of channels, show inferior values of ROS. A significant negative relation is observed between the strategic factor variables, except for channels and risks (number of exceptions) and ROS. The insurance firms that value the strategic factors the most show lower levels of performance, measured by ROS, and higher levels of performance measured by ROE, productivity and sales growth.

Focusing on the relation between type of products and strategic factors, the results show that the strategic factors variables are important to organizations with mostly life products, being the differences statistically significant. The value ( $p < 0.005$ ) for every variable leads to rejecting  $H_0$ . Differences with significance between the types of products are considered to exist.

A negative relation with significance can be observed between internal customer motivation variables and strategic factors variables ( $r = -0.738$ ;  $p = 0.000$ ) and a significantly positive relation between external customer motivation variables and strategic factors variables ( $r = 0.908$ ;  $p = 0.000$ ). Insurance firms who value internal customer motivation the most endow less importance to strategic factors and the ones who value external customer motivation the most focus on strategic factors.

The insurance firms that value the most the customers' convenience (Convence) in terms of access to the banks, post offices, internet, and telephone distribution channels, give more importance to the strategic factors but less importance when valuing their own branches and brokers. It's also confirmed that the insurance firms that value the most the customer trust (Confiden), based on the number of products and number of complains, award higher importance to the strategic factors, but lower importance if the number of years with the insurance firm is higher.

A positive relation with significance is shown between determinant factors and strategic factors ( $r = 0.917$ ;  $p = 0.000$ ). Therefore, the insurance firms that value the most the internal determinant factors, identified by the costs (Costs), organizational structure (Struct), information systems (Inftechn), and corporate image (Copimage), award higher importance to the strategic factors.

A significant positive relation is observed between multichannel and channel integration with ROE ( $r = 0.169$ ;  $p = 0.007$ ) and productivity ( $r = 0.301$ ;  $p = 0.000$ ). Channel integration influences the sales growth ( $r = 0.161$ ;  $p = 0.011$ ). The external channels are positively linked to the performance. A significant but negative relation occurs between the single channel and ROE ( $r = -0.212$ ;  $p = 0.001$ ), productivity ( $r = -0.271$ ;  $p = 0.000$ ), and sales growth ( $r = -0.250$ ;  $p = 0.017$ ), as well as between channel integration and ROS ( $r = -0.74$ ;  $p = 0.005$ ).

Insurers that value multichannels and channel integration the most have better ROE and productivity. The ones who value channel integration the most show better sales growth. Insurers who value the own branches as a single channel the most present inferior values of ROE, productivity, and sales growth. The ones who value channel integration the most show lower values of ROS.

A significant positive relation is seen between the “banks” channel and channel integration with ROE, productivity, and sales growth. The positive relations between internet and telephone channels with productivity mean that the existence of a higher number of channels improves performance. A significant negative relation can be observed between the variables of branches and brokers channels with regard to ROE and productivity, and also between the branches channel variable and sales growth.

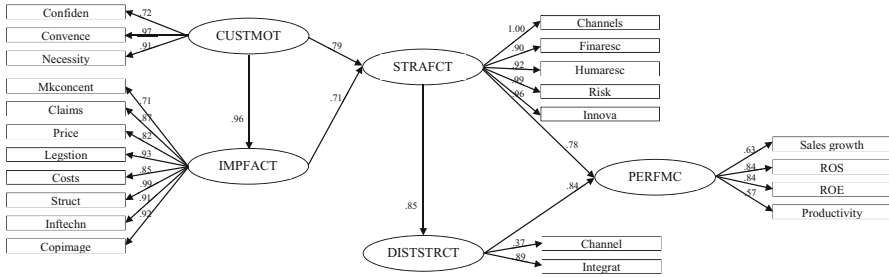
Insurers who value the banks channel and channel integration the most show higher values of ROE, productivity, and sales growth. The ones who value the internet channel and telephone channel the most present higher values of productivity. Insurers who value brokers and branches channels the most display inferior values of ROE and productivity, while those that value the branches channel the most show lower values of sales growth. Firms that value the banks channel and channel integration the most show inferior values of ROS. Therefore, the insurance firms that value the branches channel the most present lower levels of performance measured through ROE, productivity, and sales growth. However, those firms that value accesses to multichannels the most return a higher performance measured by ROE and productivity. Nevertheless, those that value channel integration show higher performance values measured by ROE, productivity, and sales growth, but are lower in terms of ROS.

A more detailed analysis highlights the fact that insurance firms that use multichannel and value channel integration present higher performance in terms of ROE, productivity, and sales growth and lower performance in terms of ROS. When firms use the internet and telephone, performance measured through productivity is higher. When the insurance firms use brokers or their own branches, performance measured by ROE, productivity, and sales growth is lower. The existence of multiple channels affects performance. The Mann–Whitney test verifies the inferior value ( $p < 0.005$ ) for every performance indicator, except sales growth.

### 4.3 Confirmatory statistics

The goodness-of-fit results of the SEM model (Fig. 2) was computed and a value of  $\chi^2 = 331.485$ , ( $df = 205$ ,  $p < 0.0001$ ) was obtained, with statistically significant relations (Arbuckle and Wothke 1999). The value of  $CMIN/DF = 1,617$  is appropriate (Kline 1998; Ullman 2001). The value of  $AGFI = 0.906$  shows the adequacy of the model fit (Schumacker and Lomax 2001).

In order to contour the limitations of the  $\chi^2$  test, the adherence indices (goodness-of-fit) should be interpreted to evaluate the model. The values of  $NFI = 0.907$ ,  $CFI = 0.962$  and  $TLI = 0.953$  are adequate in the present model (Hu and Bentler 1999). The absolute value of AIC close to zero reflects a good fit. The value



**Fig. 2** Final model

RMSEA = 0.048 ( $p = 0.562$ ) indicates that the initial hypothesis of the model fits the data (Browne and Cudeck 1993).

## 5 Discussion

### 5.1 Relation between strategic factors and distribution channels

This study verifies the influence of strategic factors on distribution channels ( $t = 5.241$ ;  $p < 0.001$ ) ( $r = 0.937$ ;  $\alpha = 0.01$ ), confirming hypothesis 1 (H1). However, strategic factors are more important to organizations with multichannel.

Rosenbloom (2007) argues that the multichannel structure, despite being more complex, is a source of competitive advantage. According to Coelho and Easingwood (2005), the use of multiple channels is more appropriate, as it answers better to customer needs. The results are consistent with these authors as the distribution channels are diverse with stronger effects on the sale of products or services. Strategic factors show a greater positive impact on distribution channels (i.e., multichannels) ( $r = 0.530$ ;  $\alpha = 0.01$ ).

Easingwood and Storey (1996) underline the importance of the single channel, although they acknowledge the increasing use of multiple channels or new channels. However, they state that success is not based on the number of channels, but on an appropriate combination of the channels used. Zettelmeyer (2000) and Okeahalam (2008) present research that justifies the increasing importance of new channels and the influence of strategic factors, namely the Channels and Innova variables.

The Channels and Innova variables appear to be less important. This means that distribution channels value business variables, such as underwriting risk, more because the product range is less diversified and relates to an increase in the value of receivable commissions. For the management of the distribution channel, Stern et al. (1996) point out the need to know the reasons that justify its existence, roles, and performance and the way they are structured, while Shervani et al. (2007) present the influence of strategic factors on channel integration.

Underwriting risk has an influence on Integrat, meaning that the use of more channels demands greater monitoring, due to the need to diversify the selection criteria toward new and multiple risks. For Coughlan et al. (2001), channel

integration, in terms of channels and financial resources, is extremely important and has an impact on sales and the financial margin.

In new and different markets, the firm needs to constitute subsidiaries and use channels. In small-sized markets, the firm may sell directly to customers, but in bigger markets it should sell through distribution channels. It may use brokers in a country yet develop a partnership in another country. In other words, the choice of the distribution channel will vary according to strategic factors.

## 5.2 Relation between strategic factors and performance

Strategic factors of insurance firms are shown to influence performance ( $t = 9.090$ ;  $p < 0.001$ ). Channels and Innova influence ROS, leading to a need for firms to value the selection process of distribution channels. However, the productivity indicator is highly influenced by STRAFCT ( $r = 0.414$ ;  $\alpha = 0.01$ ). Hypothesis 2 (H2) is thus confirmed.

STRAFCT has a greater impact on ROE, productivity, and sales growth. Nevertheless, the strategic factors of insurer activity are constantly changing, as a result of factors such as globalization and the rapid pace of technological progress, increased competition, and increased consumer sophistication. These factors have different effects on the performance of insurance firms (Beard and Dess 1981).

Innova influences productivity and integrates a process of personal, scientific, and technological knowledge that leads to the development and selling or adoption of new or improved products and processes. Innova differs through the dichotomy of new to the firm versus new to the market (Kemp et al. 2003). In general, the firm's decision-makers accomplish the desired investment if the expected profitability is greater than the market interest rate.

The underwriting risk has a significant impact on productivity (C.R. = 47.899;  $\alpha = 0.001$ ). The underwritings relevant to the insurance firm due to its impact on the volume reduction of premiums can be attributed to inadequate pricing for the specific risk. This study indicates that these are the most adequate distribution channels for performance, according to several authors (e.g., Arena 2008; Choi and Weiss 2005).

## 5.3 Relation between product type and strategic factors

The relation between the influence of the type of product on the strategic factors of insurers does not confirm hypothesis 3 (H3). However, the relation shows an impact mainly for life insurers. These results contrast the conclusions of Coelho et al. (2003) and Guillén et al. (2008), who observe the influence of underwriting on the channels used. In addition, Solberg (2008) mentions the effect of product differentiation and complexity on strategic factors and performance.

This study shows that, for most life insurers, the relevant factors are the channels used and financial resources, as the selection of products they distribute has an impact on the solvency margin of insurers. The impact on the channels that mainly use life products owes itself to the predominance of these products in new channels, for example, banks and post offices. In the traditional channels, there is a greater use

of brokers, with the subsequent decreasing impact on channels with life products. That is to say, the use of traditional channels is higher for non-life insurance products. This effect is also found by Gamarra-Trigo (2008), due to the fact that highly complex products require individual attention. This author also enhances the impact of the type of products on underwriting, derived from the specificity and relative complexity of each product.

#### 5.4 Relation between customer motivation and strategic factors

This study confirms the effect of customer motivation on the strategic factors of insurance firms ( $t = 5.318$ ,  $p < 0.001$ ). Hypothesis 4 (H4) is thus verified. Convenience, with regard to external motivations associated with new channels, has a strong impact on the strategic factors of underwriting and on innovation ( $r = 0.797$  and  $r = 0.840$ ;  $\alpha = 0.01$ ). Product necessity and customer convenience both influence STRAFCT. Engle et al. (1995) and Liu and Wu (2007) support these findings.

Eckhardt et al. (2010) underline the importance of confidence and its influence on strategic factors. However, data show that firms, in general, are not worried, in the long-term, about building relationships with customers based on trust. Nevertheless, some firms consider trust to be a strategic factor with important competitive advantage, which is supported by Soureli et al. (2008). Firms resort to the use of databases to support the development of customer loyalty strategies. The management of customer relations helps to develop relationships on an individual basis, improves customer retention, increases the number of products and achieves customer loyalty, in order to obtain sustained and fruitful results for both parties (Menon and O'Connor 2007; Sheth and Parvatiyar 2000).

The study indicates that customer motivation to purchase insurance and the need that the firm has of fulfilling legal obligations present a stronger relation with the STRAFCT than the need for prevention and security (claims). However, Innova contributes to its decrease, which explains the importance of this aspect in answering to product needs. However, in terms of product and service innovation, product needs have a greater influence on cross-selling.

#### 5.5 Relation between internal and external determinant factors and strategic factors

This study confirms the influence of internal and external factors pertinent to insurance firms on strategic factors ( $t = 12.770$ ;  $p < 0.001$ ). Hypothesis 5 (H5) is thus confirmed. However, the internal and external determinant factors have an influence on STRAFCT, except for market concentration (Mkconcent) and price (Price). The internal and external determinant factors influence the strategic factors, featuring Innova ( $r = 0.916$ ;  $\alpha = 0.01$ ). Achrol and Stern (1988) confirm this relation, although they value the role of external factors more. Siebenhüner and Arnold (2007) also prove, using less determinant factors, their effect on strategic factors. Frazier et al. (1989) and Coelho and Easingwood (2005) support these results, highlighting the complexity of the distribution channels and their



importance on success. Brown et al. (1995) and Molm et al. (2003) prove the influence of internal and external determinant factors on strategic factors, focusing on legislation and organizational structure. On the other hand, Wagner and Lindemann (2008) analyze this relation from the shared value of the channel relations view, concluding that this relation is not verified as having costs as its focus.

### 5.6 Relation between distribution channels and performance

The distribution channels of insurance firms affect ROE, productivity, and sales growth ( $t = 20.252$ ;  $p < 0.001$ ), in accordance with several authors (Ball et al. 2004; Durvasula et al. 2004). Hypothesis 6 (H6) is therefore confirmed. Firms use distribution channels, especially multichannels, when they intend to broaden market coverage with more products and services (Webb and Hogan 2002).

New channels or external distribution channels and the integration of channels show greater impact on ROE, productivity, and sales growth ( $r = 0.161$ ;  $\alpha = 0.05$ , for the relation between Integrat and sales growth;  $r = 0.367$ ;  $\alpha = 0.01$ , for remaining relations). Moreover, the results depict that multiple channels have a greater influence on the performance of insurers, the same is observed in relation to Integrat. In other words, those who value multiple channels value their integration.

In this study, the new distribution channels, banks, the internet, and telephone are shown to have an impact on productivity. The firm's branches and brokers present a low impact on ROS. The distribution channel of banks is used in the placement of life products, with a strong impact on the volume of premiums and productivity. The distributions channel "internet" and "telephone" have an impact on productivity due to the reduced structure of workers. The branches and brokers have a greater effect on activity growth than on productivity, due to the value of commissioning.

In this research, single-channel distribution is assessed by ROS. This is justified by the fact that insurers distribute their products through distribution channels. Proper channels for insurance firms are sometimes exploited in a regime similar to franchising, maintaining the insurer as the channel property, in particular due to the weight of the single channel on net profit. In life insurers, Cheng and Chang (2009) observe a different effect on productivity and efficiency resorting to the multichannel strategy or new channels. In the use of channels, namely call centers and the Internet, Gensler et al. (2007) observe descendent effects on sales, a result that differs from to the results of using multichannel structures. Conversely, Sheu and Hu (2009) confirm the positive relation between distribution channels and performance.

This research verifies the influence of strategic factors and distribution channels on performance and offers new perspectives on the choice of distribution channels. Pennings and Wansink (2004) refer to their importance due to the impact on results when decisions regarding distribution channels are disabled against uncertainty and risk.

## 6 Conclusions, contributions and future research

### 6.1 Conclusions

The strategic factors of insurance firms influence distribution channels and have an impact on performance. However, the firms that value strategic factors the most have the most positive impact on distribution channels, namely on multichannel distribution and channel integration and also on performance measured by return on equity, productivity, and sales growth. It is noted, therefore, that to obtain higher productivity and return, insurance firms opt for multichannel distribution structures, supported by their own or partners' bank networks and on the internet and telephone, and channel integration. It is thus important for insurance firms to possess strategic resources, such as financial and human resources, the effective management of the underwriting risk and products and services innovation. Besides the positive effect on firm productivity and return, insurance firms that present higher growth, though with negative effects on ROS, are those that value the channel integration the highest.

It is interesting to observe that the use of the internet and telephone mostly affects the productivity of the insurance firms, while using bank distribution channels. Despite negative effects on business return, it has a positive effect on sales growth, productivity, and ROE. Both own branches and brokers have low effects on performance.

The higher investment of insurance firms on strategic resources has positive consequences on sales growth, but has negative consequences for business returns (ROS), productivity, and ROE. In turn, those investments in strategic resources are explained by an increase in customer needs for new products and services, the convenience of access to alternative distribution channels (multichannel) and insurer trust, not only in terms of the access to different products and services but also with regard to the quality of the service.

The insurance firms that use their own branches, because they lack enough strategic resources, are characterized by lower performance in terms of return, productivity and turnover.

Insurers who highlight the strategic factors are those who mainly explore life insurance. A positive influence of the new distribution channels is seen on customer motivation, as they answer to their convenience, needs, and trust in the product. On the other hand, the internal and external determinant factors have a positive influence on strategic factors, with the exception of the relation between channels and underwriting. Insurance firms who value their own branches and brokers the most show lower values of performance on return on equity and productivity.

With regard to the study of the influence of the type of products on strategic factors, the type of variables that ensure those relations has not been presented with enough clarity, under the typology and simplification of the construct type of products. Regarding the influence of customer motivation on strategic factors, greater importance is endowed to customer convenience in the new distribution channels when compared to traditional channels.

The sizeable impact on the strategic factors of insurers seems evident having aggregated the variables related to needs with the convenience of the new distribution channels and customer trust in the insurer influenced by the shares of portfolio and number of claims. It was, however, seen that the internal and external determinant factors generally have a significant influence on the strategic factors, with the exception of the external factors market concentration and price.

## 6.2 Contributions

The results of the research are relevant for the literature and also present practical implications for firms showing the strong link between strategic factors, distribution channels and the performance of insurance firms. The options in terms of the number of channels and channel integration lead to different implications on performance. The insurance firms that use their own branches encounter difficulties in competing with other firms that sell insurance through other channels, such as banks, telephone, and internet or value the integration of distribution channels. This finding allows firms to improve their business strategy with significant practical effects.

As a contribution to theory, this research supplies information on the idiosyncrasies involved in the trade-offs of the choices between multiple dimensions, thereby providing, a more embracing analysis of the mechanisms and problems in the process of sketching distribution channels. It also allows us to better understand why, in very competitive markets, investment in strategic resources should include a move toward multichannels, specially using banks, supporting the close relationship between the banking sector and insurance industry. Yet another important contribution focuses on the special attention that insurance firms must devote to maintaining customer trust, responding to their needs with innovative products and services that are designed for convenience. These are reasons, among others, why insurance firms should invest in the improvement of their strategic resources.

## 6.3 Future research

In terms of further lines of investigation, researchers might attempt to verify the existence of a typology in the relation between key dimensions in foreign insurers or insurers operating in other markets. It would be pertinent to study this research model to compare the results of insurance firms from different markets covered by the European Insurance and Reinsurance Federation and also cover different periods. The study could be broadened to other factors and sectors of activity, for instance the banking sector. Future studies could verify relations between different types of product in the insurance business, strategic factors, and distribution channels. It may also be relevant to utilize new variables. More detailed research should also be devoted to understanding the interaction between variables that can affect the performance of insurance firms, which is an area that has been neglected in the literature. Finally, we would like to point out the need for studies to

understand the relationship between customer motivations and determinant factors that are shown to be significant in this study.

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