A comparative analysis of supply chain management between Portugal and Ireland

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Abstract
Purpose – This study investigates how insurance intermediaries in Portugal and Ireland evaluate supply chain management (SCM) practices within the insurance industry, specifically focusing on potential regional variations in their assessments.

Design/methodology/approach – A comparative research design was employed, collecting data through surveys administered to insurance brokers in Portugal and Ireland. These countries were chosen due to their well-developed intermediary-based insurance markets.

Findings – The results show that some dimensions of supply chain management are significantly different between Portugal and Ireland. Nevertheless, the insurance brokers from the two countries also share similar views on key aspects of supply chain management.

Practical implications – This study offers valuable insights for insurance industry management, particularly regarding the dynamics of the insurer-intermediary relationship and the importance of catering to intermediary needs. The findings also highlight potential areas for European Union policy consideration, such as addressing potential asymmetries within the insurance sector across member states.

Social implications – Improved relationships and collaboration within the insurance supply chain can lead to enhanced access to insurance products and more tailored services for consumers.

Originality/value – This research addresses two key gaps in the literature. Firstly, it examines the insurer-intermediary relationship from the intermediary perspective, a viewpoint often neglected in prior research. Secondly, the study investigates and confirms the existence of regional variations in insurance SCM practices across two European countries.

Keywords Supply chain management, Financial services, Insurance retail, Partner’s alignment, Information and communication technology, Trust, Culture

Paper type Research paper
Introduction

The insurance industry is a key sector in the global economy. Scenarios of supply chain disruptions, caused by national and international warlike conflicts (e.g. the recent Russia-Ukraine conflict and the fossil fuel exports supply disruption) or international political conflicts (e.g. Taiwan conflict and the chip/semiconductor supply issues) highlight the importance of the insurance sector in market stability (Craighead et al., 2007).

Insurance plays a vital role for individuals and businesses within the financial services landscape (Gara, 2021). Distribution methods for insurance products vary widely across lines and countries, influenced by economic rationales, relationships, remuneration structures, and regulations (Hilliard et al., 2013). These distribution channels have evolved significantly since the 18th century, shaped by advancements in technology, financial services diversification, and regulatory changes (Mao and Ostaszewki, 2023; Brophy, 2015). Consequently, the dynamics of insurance supply chains (SCs) have become increasingly complex.

While distinct from traditional product or service supply chains (Leiria et al., 2020), effective SCM practices remain crucial for insurers to deliver high-quality services to customers. Key functions include claims management, cost control, risk mitigation, regulatory compliance, and customer satisfaction (Prentice et al., 2023; Ahmed et al., 2022; Leiria et al., 2020; Dominique-Ferreira, 2017).

The European Union (EU) has a highly internationalized insurance market with multinational insurers and cross-border trade (Brophy, 2017). However, this openness is countered by the persistent idiosyncrasies of national regulations, creating complexities within insurance distribution models and their underlying supply chains (Moreno et al., 2022). Efforts toward standardization, exemplified by initiatives from the European Insurance and Occupational Pensions Authority (EIOPA, 2021, 2020) and Law 7/2019 (Belzuz, 2019), were unable to succeed (François and Frezal, 2018).

Research on supply chain management (SCM) practices specifically tailored to the B2B insurance industry, particularly within retail and distribution channels, remains scarce (Dominique-Ferreira, 2018). Furthermore, existing studies fail to consider potential regional variations in how insurance companies manage their supply chains. While the European Union (EU) fosters some cultural similarities among member states, significant differences in business practices persist across these countries (Samaha et al., 2014; Engelen and Brettel, 2011; Hofstede, 1980, 1991). These variations potentially influenced by cultural factors, point to a critical research gap: the need to investigate potential discrepancies in insurance supply chain management practices across regions.

Cultural differences can significantly impact supply chain dynamics (Durach and Wiengarten, 2020). Communication styles, trust-building approaches, and decision-making processes can vary considerably across cultures (Yates and de Oliveira, 2016). These variations can lead to communication barriers, delays, and reduced trust between supply chain partners, ultimately hindering supply chain efficiency. Additionally, cultural risk tolerance can influence risk management behaviours within the supply chain (Kumar and Anbanandam, 2019; Chen et al., 2009).

This study takes a unique approach by examining supply chain management (SCM) practices within the insurance distribution sector across different European Union (EU) countries. While these countries share a common regulatory framework and some insurance carriers, the potential impact of cultural variations on SC practices remains unexplored. The Behavioural Theory of the Firm posits that cultural differences significantly influence strategic management, including supply chain practices (Durach and Wiengarten, 2020; Gupta and Gupta, 2019; Goswami et al., 2021). This research addresses this gap by investigating how cultural factors might influence insurance distribution supply chains across the EU.
Furthermore, limited research exists on how insurance brokers evaluate their relationships with insurers and how these relationships differ across regions. This study addresses this gap by examining SCM practices and relationship quality in the insurance distribution sector of two EU countries, Portugal and Ireland. The research focuses on two key questions:

**RQ.1.** What are the perceived differences in SCM performance between Portugal and Ireland from the perspective of insurance brokers?

**RQ.2.** How do insurance brokers’ perceptions of relationship quality with insurers differ between these two countries?

This study builds upon the Behavioural Theory of the Firm by demonstrating the impact of culture on insurance SCM practices across two EU countries, Portugal and Ireland. While prior research established the influence of culture on business practices in marketing (Durach and Wiengarten, 2020; Gupta and Gupta, 2019; Goswami et al., 2021), this work extends this concept to the specific domain of insurance supply chains. This research also identifies how insurance intermediaries evaluate specific industry practices within the SCM context. By highlighting key areas for improvement, the study contributes to strengthening synergies between stakeholders such as insurers and brokers.

The following section presents the relevant literature on Supply Chain and the correspondent dimensions, as well as the importance of national culture in management and marketing. The study compares the insurance brokers’ perception of these dimensions. The method for data collection is outlined. Discussion of the findings and implications are highlighted for researchers and practitioners.

**Literature review**

**Supply chain management**

Supply Chain Management (SCM) has transcended its logistical roots to become a critical discipline across modern businesses (La Londe and Masters, 1994). This evolution emphasizes integrated management of all value chain stages, from raw materials to customer satisfaction (Danise, 2021). Marketing, in particular, requires seamless collaboration across departments for successful outcomes (Fernando and Wulansari, 2020, b; Liu et al., 2020a, b). This integrated approach ensures value creation throughout the supply chain, encompassing suppliers, producers, and ultimately, the end consumer (Chen and Lai, 2010).

**Supply chain management dimensions**

Efficient information and communication technology (ICT) management is crucial for successful strategic partnerships (Hänninen et al., 2021; Sharma et al., 2021; Ketchen and Craighead, 2020; Guan et al., 2019; Rita and Krapfel, 2004). These ICT processes ensure not only contract adherence but also improves cooperation and alignment between partners (Hänninen et al., 2021; Attaran, 2020; Backstrand and Fredriksson, 2020). Additionally, effective supply chain management (SCM) relies on both hard skills (technical expertise) and soft skills (human-specific assets and top management support) (Ketchen and Craighead, 2020). Quality information, facilitated by efficient ICT, empowers better decision-making (Ketchen and Craighead, 2020; Schniederjans et al., 2020; Guan et al., 2019). Ultimately, these elements contribute to a successful partnership with interdependence, commitment, trust, and shared vision among partners (Sharma et al., 2021; Wieland, 2021). A detailed exploration of each dimension’s role within SCM follows.
Communication and information management (CIM). The modern SC faces increasing pressure due to volatile consumer demand, heightened delivery expectations, and faster production cycles (KRC Research, 2013). These trends often exceed the adaptability of existing SC systems, leading to concerns about revenue and profitability. To address these challenges, SC managers prioritize talent development, best practice adoption, data-driven decision-making, and improved visibility for executives (KRC Research, 2013). Additionally, technology platforms, outsourcing, and external consulting services are increasingly utilized. This dynamic environment underscores the need for ongoing research to identify strategies for achieving greater SC efficiency (Banker, 2021a, b; Palsule, 2020; Mazero, 2019).

CIM plays a critical role in the efficiency of SCM (Fatorachian and Kazemi, 2020; Guan et al., 2019). Furthermore, cooperation and information sharing between the different partners optimise physical and human resources, reducing time consumption (Chiu et al., 2021). As Gunasekaran and Ngai (2004) emphasize, successful SCM prioritizes the long-term benefits of all stakeholders through cooperation and open communication.

Contract. Contracts play a vital role in establishing stable relationships within the supply chain (SC) (Hong et al., 2014). They explicitly define inter-organizational agreements, improving trust between partners (Perrigot et al., 2019; Li et al., 2010). While trust is crucial for long-term success (Weissman, 2017), contracts provide a legal framework for enforcing agreed-upon principles. This ensures stability throughout the SC, both upstream (suppliers) and downstream (distributors and retailers).

Asset investment and human-specific assets. Several studies emphasize the importance of investment in human assets to achieve successful partnerships within the supply chain (Hong et al., 2014). By developing inter-firm strategic human-asset specificity, partners can enhance communication, alignment, and overall integration (Hong et al., 2014). Furthermore, skilled human resources play a critical role in delivering high-quality service, ultimately influencing customer satisfaction and loyalty (Dominique-Ferreira et al., 2021; Shamim et al., 2019). For instance, research suggests that Portuguese insurance intermediaries were more adept at adapting digital platforms and employee skillsets in response to the COVID-19 pandemic compared to their Irish counterparts (Fernandes, 2020; PwC and Insurance Ireland Leaders, 2020). This highlights the potential competitive advantage gained through a skilled and adaptable workforce. These findings align with broader research acknowledging the importance of digital touchpoints in the modern insurance industry (Alt et al., 2021).

Cooperation and alignment. Extensive research underscores the critical role of cooperation and strategic alignment between insurance industry partners in achieving a sustainable supply chain (Backstrand and Fredriksson, 2020; Pettit et al., 2019). These collaborative efforts optimize the insurance SC by facilitating joint forecasting and material management practices. Ultimately, this collaborative approach enhances return on working capital for both insurers and intermediaries (Attaran, 2020; Hong et al., 2014). Furthermore, a highly aligned partnership strengthens overall organizational efficiency across the supply chain (d’Avolio et al., 2015; Hong et al., 2014; Castelli and Brun, 2010).

Top manager support. Research emphasizes the critical role of top management commitment in developing successful supply chain management (SCM) practices (Mazero, 2019; Banker, 2021b). Top managers play a crucial role in promoting information sharing across the supply chain, recognizing its benefits for overall performance (Hong et al., 2014). Furthermore, strong leadership leads to a supportive work environment for employees, which is particularly important within the insurance industry (PwC Ireland and Insurance Ireland Leaders, 2020).

Information quality. Information and communication technologies (ICTs) play a vital role in supply chain (SC) management by enabling interaction between partners (Hänninen et al., 2021; Attaran, 2020; Fatorachian and Kazemi, 2020). However, the quality of information exchanged remains a critical element in successful SC collaboration (Prajogo and Ollager, 2012).
Hong et al. (2014) posit that real-time information sharing among all SC stakeholders is essential for seamless operations. This approach fosters improved information flow, leading to enhanced efficiency and effectiveness within the SC.

**Interdependence, commitment, trust, and shared vision.** Interdependence, commitment, trust, and shared vision are all part of a mindset and play a critical role in improving the relationship between retailers and distributors, and therefore, optimising the SC performance (Sharma et al., 2021; Attaran, 2020; Nowicka, 2018; Bigné and Blesa, 2003). The lack of trust is one of the leading business challenges/risks facing the insurance sector (PwC and Insurance Ireland Leaders, 2020). Additionally, quality, commitment, and trust play an important role in businesses (Tang et al., 2014; Twing-Kwong et al., 2013; Prajogo and Olhager, 2012; Lin and Wu, 2011).

**The importance of supply chain management in insurance industry**

The financial services sector has undergone significant transformations driven by corporate restructuring, technological advancements, and competitive forces (Grewal et al., 2021; Shankar et al., 2021). Innovation has shifted from simply delivering new products to enhancing service stability and quality (Das et al., 2018). The rise of fintech further underscores this emphasis on continuous innovation (Clarke and Tooker, 2018).

Within financial services, the insurance industry possesses distinct characteristics compared to banking, due in part to its regulatory framework and product complexity. However, some financial giants operate across both sectors (Brophy, 2013). Information asymmetry between consumers and insurers has led to the rise of intermediaries, such as insurance brokers, who bridge this gap and play a crucial role in matchmaking between insurance suppliers and consumers (Eckardt and Ráthke-Döppner, 2010; Dominique-Ferreira, 2018).

While agencies remain a primary distribution channel for insurers, various other channels have emerged (Hu and Tracogna, 2020), increasing the complexity of insurance supply chain management (SCM). This complexity is further amplified by the need for effective communication and collaboration across these diverse channels (Alt et al., 2021).

Research on SCM practices within the B2B insurance industry, particularly regarding retail and distribution channels, remains limited (Dominique-Ferreira, 2018). This study aims to address this gap by investigating insurance SCM practices from the perspective of insurance brokers, the intermediaries who play a critical role in navigating this complex ecosystem.

**Methodology**

**Sample and procedure**

The study was conducted within the Portuguese and Irish insurance markets, chosen for their general operational similarities. Data were collected through surveys administered to 86 insurance intermediaries (46 Portuguese, 40 Irish).

As noted by Leiria et al. (2022), insurance companies are often reluctant to share customer data, even in anonymized forms, for academic research. To overcome this limitation, the study focused on data collection from intermediaries. The sample size (±9% margin of error, \( p = q = 50 \), confidence level 90%, \( k = 2 \) sigma) falls within acceptable limits for exploratory studies (Daniel, 2012).

To ensure the appropriateness of the survey instrument, construct validity measures were implemented. Following Tanner (2018), detailed discussions were held with Portuguese and Irish insurance business experts to confirm the relevance and clarity of the dimensions and items used in the survey. Additionally, a pilot test involving six randomly selected insurance brokers was conducted to refine the survey instrument.
intermediaries was conducted to assess both construct validity and face validity (Tabachnick et al., 2007). The pilot test also confirmed that the survey could be completed in less than 15 min, minimizing respondent fatigue.

Survey instrument and hypotheses
The survey utilized a five-point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). All survey items were adapted from Hong et al. (2014).

Analysis and results
Confirmatory factor analysis
Prior to address the research questions, confirmatory analysis was performed as the study adopted existing items to measure SCM. The results show that the model had acceptable fit indices: \( \chi^2 (2184.812) = 701, p < 0.01 \). The composite reliabilities for all factors were acceptable, and the average variance extracted (AVE) for each factor was approximately or over 0.50, indicative of adequate convergence. In addition, the items have acceptable loadings to each dimension with good composite reliability (CR) and average variance extracted (AVE) (see Table 1), supporting convergent validity. Specifically, loadings were above 0.6, Cronbach’s alpha and composite reliability (CR) were above 0.6, and average variance extracted was above 0.05, supporting convergent validity. Discriminant validity is also supported because the square root of AVE for a certain construct is higher than correlations between that construct and others (see Table 2).

Results to address research questions
To assess the normality of data, researchers employed the Shapiro-Wilk test. Since the data did not meet the normality assumptions, a (non-parametric) Mann-Whitney \( U \) test was used (Table 3). Statistical differences between the two countries (culture effect) were found in all items (Table 3).

Insurance broker assessment of SCM practices. The survey results reveal a generally positive assessment of supply chain management (SCM) practices by insurance brokers in both Portugal and Ireland. However, a more detailed analysis by dimension uncovers some interesting variations.

Communication (CO) and information management (IM). While information exchange appears satisfactory (3.85 in Ireland, 3.41 in Portugal), a key discrepancy emerges in conflict resolution. Portuguese brokers reported lower agreement (2.90) with the statement “we can always resolve conflicts through communication with our partners” compared to their Irish counterparts (3.78).

(1) We exchange information with our partners completely (3.85 in Ireland and 3.41 in Portugal).

(2) It would be difficult to find a new partner if we lose this business (4.35 in Ireland and 2.43 in Portugal).

(3) Our partners and intermediary always try to keep each other’s promises (3.50 in Ireland and 4.05 in Portugal).

Agency agreement
In this dimension, there are considerable differences in two of the three items:

(1) We consider the agency agreement to be an essential way to do business with our partners (3.63 in Ireland and 4.00 in Portugal).
We signed a relatively long-term agency agreement with our partners (3.61 in Ireland and 3.00 in Portugal).

**Asset investment (AI) and human-specific assets (HSA)**. In this dimension, results are very similar in both countries.

**Cooperation (CO), alignment (AL) and top manager support (TMS)**
In this dimension, results are also very similar in both countries. However, low values of these two dimensions should be highlighted.

<table>
<thead>
<tr>
<th>Item</th>
<th>Loading</th>
<th>Alpha</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supply change partnership management</strong></td>
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<tr>
<td><strong>Communication</strong></td>
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<tr>
<td>We meet frequently with our partners</td>
<td>0.85</td>
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<tr>
<td>We have a formal and flexible communication system with our partners</td>
<td>0.92</td>
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<tr>
<td>We can discuss anything with our partners concerning our mutual benefit</td>
<td>0.92</td>
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<tr>
<td>We can always resolve conflicts through communication with our partners</td>
<td>0.91</td>
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<td><strong>Information management</strong></td>
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<tr>
<td>We have an advanced information-exchanging system with our partners</td>
<td>0.88</td>
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<tr>
<td>We and our partners can exchange information easily and safely</td>
<td>0.94</td>
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<tr>
<td>We and our partners inform each other in advance of changing needs</td>
<td>0.84</td>
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<tr>
<td>We and our partners are likely to share proprietary information with each other if it can help the other party</td>
<td>0.83</td>
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<tr>
<td>We and our partners can keep the confidentiality of our mutual propriety information</td>
<td>0.79</td>
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<tr>
<td><strong>Asset investment</strong></td>
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<tr>
<td>We have dedicated or reserved equipment to maintain the business relationship with our partners</td>
<td>0.91</td>
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<tr>
<td>We have purchased specialised equipment to maintain the business relationship with our partners</td>
<td>0.90</td>
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<tr>
<td><strong>Human-specific assets</strong></td>
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<tr>
<td>We and our partners personnel regularly visit each other’s facilities</td>
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<tr>
<td>We and our partners have built a cooperative team to maintain our relationship</td>
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<tr>
<td><strong>Cooperation</strong></td>
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<tr>
<td>We cooperate with our partners with respect to product design</td>
<td>0.94</td>
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<tr>
<td>We cooperate with our partners with respect to process design</td>
<td>0.95</td>
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<tr>
<td>We cooperate with our partners with respect to quality management</td>
<td>0.94</td>
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<tr>
<td>We cooperate with our partners with respect to forecasting and planning</td>
<td>0.94</td>
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<tr>
<td><strong>Alignment</strong></td>
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<tr>
<td>Our main partners are our strategically aligned partners</td>
<td>0.80</td>
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<tr>
<td>We allocate profit evenly with our aligned partners</td>
<td>0.92</td>
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<tr>
<td>We have exclusive strategic partnering alignment with our partners</td>
<td>0.96</td>
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<tr>
<td><strong>Top management support</strong></td>
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<tr>
<td>Top management considers the relationship between us and our partners to be important</td>
<td>0.84</td>
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<tr>
<td>Top management supports our collaboration with the resources we need</td>
<td>0.90</td>
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<tr>
<td>Top management regards SCM as a high-priority item</td>
<td>0.95</td>
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<tr>
<td><strong>Shared vision</strong></td>
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<tr>
<td>We and our partners share mutual understanding about our SCM goals</td>
<td>0.89</td>
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</tr>
<tr>
<td>We and our partners share mutual understanding about the importance of supply chain collaboration</td>
<td>0.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We and our partners share mutual understanding about our strategic goals</td>
<td>0.88</td>
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Source(s): Table by authors

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Table 1.
Items and loadings
Information quality (IQ), interdependence (INT), commitment (COM), trust (T) and shared vision (SV). Regarding the dimension Information quality, the most significant difference is related to the item we exchange information with our partners completely (3.85 in Ireland and 3.41 in Portugal). The item with the most significant difference appears in the item. It would be difficult to find a new partner if we lose this business (4.35 in Ireland and 2.43 in Portugal).

Regarding Commitment, “our partners and we always try to keep each other’s promises” presents a significant difference (3.50 in Ireland and 4.05 in Portugal). However, no considerable differences are found in trust and shared vision.

SCM perceptions of insurance brokers in Ireland and Portugal

Through Figure 1, it is possible to observe that the “partnering relationship quality” presents more discrepancies between both samples (Portuguese and Irish intermediaries) than the “SC partnership management practice”. Furthermore, the highest values are also displayed in the former, e.g. interdependence (3.91, for the Irish intermediaries) and commitment (3.85, for the Portuguese intermediaries). The highest values of the latter are related to the Agency Agreement, i.e. contract (3.67 for the Irish intermediaries) and asset investment (also 3.67).

When comparing the results obtained in each dimension with the mean value of all items of the entire sample (Figure 1), it is possible to observe that:

1. Communication, information management, cooperation, alignment, and top manager support present values below the mean value. In the case of Portugal, the interdependence value is below the mean.

2. Commitment presents a value above the mean in both countries. In the case of Ireland, interdependence also presents a value above the mean.

Although statistically significant differences were found in the results between both countries, the direction of the responses in both countries is consistent, i.e. when results are positive for one of the countries, the same happens in the other country and vice versa (detailed results and statistical differences presented in Table 3).

Discussion

SCM success is affected by different dimensions, from SC partnership management practice to partnering relationship quality. The former dimension consists of communication and information management, contract, asset investment and human-specific assets, cooperation and alignment and top manager support (e.g. Banker, 2021b; Atarran, 2020; Mazero, 2019; Weissman, 2017). The latter relies on information quality, interdependence, commitment, trust, and shared vision (e.g. Attaran, 2020; PwC and Insurance Ireland Leaders, 2020;}

<table>
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<th>7</th>
<th>8</th>
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</thead>
<tbody>
<tr>
<td>1 Alignment</td>
<td>0.90</td>
<td></td>
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<tr>
<td>2 Asset investment</td>
<td>0.32</td>
<td>0.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3 Communication</td>
<td>0.69</td>
<td>0.35</td>
<td>0.90</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>4 Cooperation</td>
<td>0.85</td>
<td>0.19</td>
<td>0.65</td>
<td>0.94</td>
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<tr>
<td>5 Human-specific assets</td>
<td>0.70</td>
<td>0.35</td>
<td>0.80</td>
<td>0.66</td>
<td>0.93</td>
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<tr>
<td>6 Information management</td>
<td>0.63</td>
<td>0.40</td>
<td>0.75</td>
<td>0.66</td>
<td>0.56</td>
<td>0.86</td>
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<tr>
<td>7 Shared vision</td>
<td>0.57</td>
<td>0.30</td>
<td>0.75</td>
<td>0.61</td>
<td>0.56</td>
<td>0.65</td>
<td>0.88</td>
<td></td>
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<tr>
<td>8 Top management support</td>
<td>0.64</td>
<td>0.54</td>
<td>0.79</td>
<td>0.65</td>
<td>0.77</td>
<td>0.71</td>
<td>0.75</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Table 2. Correlations and the squared root of AVE (on diagonal)

Source(s): Table by authors
<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>Ireland</th>
<th>Portugal</th>
<th>Statistical differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>We meet frequently with our partners</td>
<td>3.23</td>
<td>3.48</td>
<td>$-0.25^a$</td>
</tr>
<tr>
<td>C</td>
<td>We have a formal and flexible communication system with our partners</td>
<td>3.45</td>
<td>3.33</td>
<td>$0.12^a$</td>
</tr>
<tr>
<td>C</td>
<td>We can discuss anything with our partners concerning our mutual benefit</td>
<td>3.68</td>
<td>3.52</td>
<td>$0.15^a$</td>
</tr>
<tr>
<td>C</td>
<td>We can always resolve conflicts through communication with our partners</td>
<td>3.78</td>
<td>2.90</td>
<td>$0.87^a$</td>
</tr>
<tr>
<td>IF</td>
<td>We have an advanced information-exchanging system with our partners</td>
<td>3.30</td>
<td>3.26</td>
<td>$0.04^a$</td>
</tr>
<tr>
<td>IF</td>
<td>We and our partners can exchange information easily and safely</td>
<td>3.35</td>
<td>3.57</td>
<td>$-0.29^a$</td>
</tr>
<tr>
<td>IF</td>
<td>We and our partners inform each other in advance of changing needs</td>
<td>3.45</td>
<td>3.29</td>
<td>$0.16^a$</td>
</tr>
<tr>
<td>IF</td>
<td>We and our partners are likely to share proprietary information with each other if it can help the other party</td>
<td>3.43</td>
<td>3.17</td>
<td>$0.25^a$</td>
</tr>
<tr>
<td>IF</td>
<td>We and our partners can keep the confidentiality of our mutual propriety information</td>
<td>3.65</td>
<td>3.71</td>
<td>$-0.07^a$</td>
</tr>
<tr>
<td>AG</td>
<td>We consider the agency agreement to be an important way to do business with our partners</td>
<td>3.63</td>
<td>4.00</td>
<td>$-0.38^a$</td>
</tr>
<tr>
<td>AG</td>
<td>We signed a detailed legal agency agreement with our partners</td>
<td>3.78</td>
<td>3.52</td>
<td>$0.25^a$</td>
</tr>
<tr>
<td>AG</td>
<td>We signed a relatively long-term agency agreement with our partners</td>
<td>3.61</td>
<td>3.00</td>
<td>$0.61^a$</td>
</tr>
<tr>
<td>AI</td>
<td>We have dedicated or reserved equipment to maintain the business relationship with our partners</td>
<td>3.56</td>
<td>3.75</td>
<td>$-0.19^a$</td>
</tr>
<tr>
<td>AI</td>
<td>We have purchased specialised equipment to maintain the business relationship with our partners</td>
<td>3.64</td>
<td>3.59</td>
<td>$0.05^a$</td>
</tr>
<tr>
<td>HSA</td>
<td>We and our partners’ personnel regularly visit each other’s facilities</td>
<td>3.33</td>
<td>3.26</td>
<td>$0.06^a$</td>
</tr>
<tr>
<td>HSA</td>
<td>We and our partners have built a cooperative team to maintain our relationship</td>
<td>3.64</td>
<td>3.76</td>
<td>$-0.12^a$</td>
</tr>
<tr>
<td>CO</td>
<td>We meet frequently with our partners</td>
<td>3.23</td>
<td>3.48</td>
<td>$-0.25^a$</td>
</tr>
<tr>
<td>CO</td>
<td>We cooperate with our partners with respect to product design</td>
<td>3.20</td>
<td>3.24</td>
<td>$-0.04^a$</td>
</tr>
<tr>
<td>CO</td>
<td>We cooperate with our partners with respect to process design</td>
<td>3.28</td>
<td>3.30</td>
<td>$-0.03^a$</td>
</tr>
<tr>
<td>CO</td>
<td>We cooperate with our partners with respect to quality management</td>
<td>3.38</td>
<td>3.29</td>
<td>$0.09^a$</td>
</tr>
<tr>
<td>AL</td>
<td>We cooperate with our partners with respect to forecasting and planning</td>
<td>3.24</td>
<td>3.17</td>
<td>$0.06^a$</td>
</tr>
<tr>
<td>AL</td>
<td>Our main partners are our strategically aligned partners</td>
<td>3.50</td>
<td>3.30</td>
<td>$0.20^a$</td>
</tr>
<tr>
<td>AL</td>
<td>We allocate profit evenly with our aligned partners</td>
<td>3.28</td>
<td>3.24</td>
<td>$0.04^a$</td>
</tr>
<tr>
<td>AL</td>
<td>We have exclusive strategic partnering alignment with our partners</td>
<td>3.33</td>
<td>3.04</td>
<td>$0.28^a$</td>
</tr>
<tr>
<td>TMS</td>
<td>Top management considers the relationship between us and our partners to be important</td>
<td>3.63</td>
<td>3.43</td>
<td>$0.19^a$</td>
</tr>
<tr>
<td>TMS</td>
<td>Top management supports our collaboration with the resources we need</td>
<td>3.53</td>
<td>3.24</td>
<td>$0.26^a$</td>
</tr>
<tr>
<td>TMS</td>
<td>Top management regards SCM as a high-priority item</td>
<td>3.53</td>
<td>3.39</td>
<td>$0.13^a$</td>
</tr>
<tr>
<td>COM</td>
<td>We and our partners always try to keep each other’s promises</td>
<td>3.50</td>
<td>4.05</td>
<td>$-0.55^a$</td>
</tr>
</tbody>
</table>

Table 3. Descriptive results and statistical differences (continued)
Nowicka, 2018; Hong et al., 2014). These results are also in line with the findings obtained by Gupta and Gupta (2019), especially regarding the first category obtained by them ("operational decisions), which include workforce management, performance measurement, risk, and security.

The research suggests a scenario where, despite industry-specific nuances (idiosyncrasies), both countries exhibit well-developed distribution channels within their insurance supply chains. These channels have evolved over time, adapting to various regulatory and industrial changes. While statistical variations exist between the two nations, a positive overall assessment emerges from an analysis across all relevant dimensions. All items present a positive assessment for both samples (Portuguese and Irish intermediaries), except for the item “we can always resolve conflicts through communication with our partners” (2.90 for Portuguese intermediaries), confirming the importance of communication strategies in the insurance industry (in line with Alt et al., 2021; Yu and Tseng, 2016). Authors would also like to highlight the item “we signed a relatively long-term agency agreement with our partners” since it presents a relatively low value (3.00 also for Portuguese intermediaries). Consequently, our results are in line with literature (e.g. Banker, 2021b; Attaran, 2020; Mazero, 2019; Weissman, 2017; Hong et al., 2014).

Another item presenting differences is “it would be difficult to find a new partner if we lose this business” (2.43 for the Portuguese intermediaries). Additionally, this item shows the most significant difference in all the scale 4.35 (for the Irish intermediaries) versus 2.43. The results are also in line with the literature (e.g. Attaran, 2020; PwC and Insurance Ireland Leaders, 2020; Nowicka, 2018).

The authors contend this pioneering work in an essential part of financial services has further use in the technological advancement of insurance distribution and operations (in line with Alt et al., 2021; Grewal et al., 2021; Shankar et al., 2021). Furthermore, the rise of FinTech and RegTech (Brophy, 2019) underscores the importance of SCM exploration in this sector.

### Table 3.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>Ireland</th>
<th>Portugal</th>
<th>Statistical differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM</td>
<td>We have invested a lot of effort in the relationship with our partners</td>
<td>3.80</td>
<td>3.90</td>
<td>−0.10&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>COM</td>
<td>We and our partners have made sacrifices for each other in the past</td>
<td>3.60</td>
<td>3.55</td>
<td>0.06&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>COM</td>
<td>We and our partners are concerned about each other’s welfare</td>
<td>3.63</td>
<td>3.89</td>
<td>−0.27&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>T</td>
<td>Our partners have been open and honest in dealing with us</td>
<td>3.58</td>
<td>3.55</td>
<td>0.03&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>T</td>
<td>We feel that we can trust our partners completely</td>
<td>3.43</td>
<td>3.45</td>
<td>−0.03&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>T</td>
<td>Our partners respect the confidentiality of the information they receive from us</td>
<td>3.75</td>
<td>3.80</td>
<td>−0.05&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>T</td>
<td>Our transactions with trading partners do not have to be closely supervised</td>
<td>3.70</td>
<td>3.45</td>
<td>0.25&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>SV</td>
<td>We and our partners share mutual understanding about our SCM goals</td>
<td>3.49</td>
<td>3.32</td>
<td>0.17&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>SV</td>
<td>We and our partners share mutual understanding about the importance of supply chain collaboration</td>
<td>3.64</td>
<td>3.40</td>
<td>0.24&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>SV</td>
<td>We and our partners share mutual understanding about our strategic goals</td>
<td>3.53</td>
<td>3.36</td>
<td>0.16&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>Note(s):</sup> <sup>a</sup>Mann-Whitney U test Point of Probability in all items below 0.01

<sup>Source(s):</sup> Table by authors
Effective SCM practices are essential for successfully integrating both established supply chain technologies and disruptive innovations like blockchain-powered data exchange (Krafft et al., 2020). This research paves the way for future studies examining how insurance intermediaries can leverage SCM to harness the full potential of technological advancements within the insurance industry.

**Implications**

This research addresses two key gaps in the marketing literature concerning insurance supply chain management (SCM). Firstly, we examine the insurer-intermediary relationship from the intermediary perspective. Prior research has predominantly focused on the insurer’s viewpoint, neglecting the intermediary’s evaluation of this critical partnership. Secondly, we investigate potential regional variations in insurance SCM practices by comparing two EU countries, Portugal and Ireland. While existing studies acknowledge the importance of effective SCM, comparative analyses across regional contexts within the insurance sector are limited. By addressing these gaps, this study offers valuable insights into the dynamics of the insurance supply chain from the intermediary’s viewpoint and explores potential regional variations within the EU.
Theoretical implications
This study contributes to SCM theory in several ways. First, it highlights the critical role of information and communication technology (ICT) in facilitating efficient distribution and retail management. Second, the findings reinforce the importance of fostering cooperation, alignment, and trust among supply chain partners. Effective collaboration strengthens upstream relationships and contributes to a more adaptable supply chain that can better respond to fluctuating demand.

Furthermore, the research underscores the need for cultural sensitivity within the insurance industry. Our results suggest that insurance companies should adapt their practices to consider the specific cultural contexts of each market they serve. This finding extends the Behavioural Theory of the Firm by demonstrating the influence of national culture on insurance supply chain management practices. In doing so, the study aligns with recent calls for a deeper understanding of cultural influences in business behaviour (Durach and Wiengarten, 2020; Gupta and Gupta, 2019; Goswami et al., 2021).

Managerial implications
This study offers valuable insights for insurance industry management across several European countries. The findings highlight key differences in intermediary practices between Portugal and Ireland compared to countries with a prevalence of tied agents (e.g. France, Germany and Belgium). This distinction has significant ramifications for B2C insurance markets.

The research underscores the critical role of information and communication technology (ICT) in fostering efficient B2B relationships between insurers and intermediaries. This translates to improved responsiveness in B2C markets. Consequently, insurers and intermediaries should prioritize the development of synchronized ICT platforms. Standardized platforms will enhance downstream efficiency throughout the retail market and contribute to stronger cooperation and alignment between these key stakeholders.

Given the importance of contracts within the insurance distribution system, further research is recommended to explore the inclusion of specific ICT-related protocols within contracts between insurers and intermediaries. This could help mitigate the potential bypassing of traditional intermediaries by B2C customers who utilize bancassurance or brand insurance options.

The study also suggests the importance of intermediaries embracing digital transformation efforts. Developing a strong website or call centre presence can enhance customer service and potentially counter the threat of customer disintermediation through bancassurance or brand insurance models (see Figure 2).

This study reveals interesting distinctions in how insurance intermediaries in Portugal and Ireland view Agency Agreements. Irish intermediaries tend to perceive them as more long-term and detailed documents, while Portuguese intermediaries see them as primarily functional. Building on this finding, the authors propose exploring incentive structures based on “gamification” principles within long-term contracts. Such an approach could potentially enhance the longevity and stability of B2C market relationships.

Both Portuguese and Irish intermediaries prioritize staff development, exceeding regulatory requirements in their respective countries. This aligns with Brophy’s (2014) observations regarding the Irish financial services industry’s shift towards enhanced staff training. The study also reveals that Irish insurers are more likely to invest in intermediaries through ICT infrastructure for product sales and continuous professional development programs.

The research underscores the importance of developing strong B2B relationships between insurers and intermediaries, particularly in the context of evolving consumer needs and
market disruptions. The COVID-19 pandemic exemplifies the need for agility in adapting product offerings, particularly in non-life insurance sectors like health insurance. The study highlights the challenge faced by some B2B markets in efficiently adjusting supply to meet surging demand. Furthermore, the research points to the increasing frequency of pandemics and cyber threats, emphasizing the need for adaptable B2B distribution channels.

The findings suggest that Irish broker associations play a crucial role in facilitating access to top insurance industry management. The authors recommend that the Portuguese insurance industry consider replicating this approach to enhance communication and collaboration at the B2B level.

The study reveals a potential cultural influence on commitment levels between Portuguese and Irish intermediaries. Portuguese intermediaries appear to demonstrate stronger commitment to insurers through factors like keeping promises and investing in the relationship. The authors recommend formalizing these “informal promises” through long-term contractual provisions.

Limitations and further research
While the sample size here is a clear limitation of this exploratory study, it is possible to observe some factors applicable, not allowing the application of other statistic methods/techniques. The number of intermediaries is in decline in Portugal and Ireland through many merger and acquisition activities. Processes related to SCM within the insurer and
intermediary relationship are very streamlined and generic, allowing for a small sample size to present a bigger picture. In future studies, it would be important to have a larger sample, including other European countries. Furthermore, the potential role of Artificial Intelligence (AI) solutions in mitigating risks within the insurance supply chain represents a promising avenue for future research. Investigating how AI can be leveraged to enhance efficiency, manage disruptions, and strengthen B2B relationships could yield valuable insights for the insurance industry.

References


Further reading


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