

Risk sources and the effectiveness of the control system in the franchisor's risk perception management

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ABSTRACT

Franchisor's risk perceptions influence their decisions about the development and continuity of their relationships with franchisees. Although control systems are essential for risk perception management, the effectiveness of diverse types of control remains unclear. The present study incorporates specific sources of risk from the franchisor-franchisee relationship to explain control effectiveness in risk perception management. We propose that the interaction between risk sources and distinct types of control explains a franchisor's risk perception. Using data from 240 survey respondents from franchisors in Spain, this study employs structural equation modelling to analyse the effectiveness of behaviour, outcome, and social controls in the management of franchisor's relational and performance risk perceptions arising from specific risk sources. The results confirm the proposed interaction influence on the franchisor's risk perception and reveal that greater control does not always decrease risk perception, but depends on the degree of the risk sources faced by the franchisor as well as the kind of risk perceived.

1. Introduction

Effective management of the franchisor-franchisee relationship from its inception is crucial for a franchising chain's success (Boulay, Caemmerer, Evanschitzky, & Duniach, 2016; Evanschitzky, Iyer, Pillai, Kenning, & Schütte, 2015; Gulati, 2002; Michael & Combs, 2008; Paswan & Wittmann, 2009). In the context of franchising, franchisors must assess and respond to perceived risks and specific threats (Forlani, Parthasarathy, & Keaveney, 2008; Ryals & Knox, 2007; Safón & Escribá-Esteve, 2011; Szczepański & Światowiec-Szczepańska, 2012). These risk perceptions influence strategic decisions, including the introduction of new products and services, expanding the chain through new outlets, and other franchising investments (Ludvigsson-Wallette & Lawrence, 2020; Tong & Crosno, 2021). Risk perception can be defined as the franchisor's evaluation of the potential effect of risk sources on cooperation problems or achieving the relationship goals (Forlani et al., 2008; Janney & Dess, 2006; Parkhe, 1993; Sitkin & Pablo, 1992; Sitkin & Weingart, 1995; Stone, Yates, & Parker, 1994).

Franchising is a hybrid governance mode designed to mitigate

franchisor risk perceptions during expansion (Combs, Ketchen, & Short, 2011; Combs, Michael, & Castrogiovanni, 2004; Gillis, Combs, & Yin, 2020; Ludvigsson-Wallette & Lawrence, 2020; Sorenson & Sorensen, 2001; Tong & Crosno, 2021). However, two types of the franchisor's risk perception remain: relational risk perception, which relates to the probability and consequences of unsatisfactory cooperation with franchisees; and performance risk perception, concerning the probability and consequences of not achieving franchising objectives despite satisfactory cooperation (Bürkle & Posselt, 2008; Das & Teng, 1996, 2001; Langfield-Smith, 2008). Relational risk encompasses the possibility of franchisee opportunism, a primary source of transaction costs in Transaction Cost Economics (TCE), and its assessment determines the continuity of the relationship (Williamson, 1975, 1983, 1991). Similarly, to reduce the probability of relationship failure from performance risk, transaction cost economisation is necessary (Gulbrandsen, Jay Lambe, & Sandvik, 2017; Williamson, 1985).

Control systems are recognised as critical instruments for managing risk perceptions (Coletti, Sedatole, & Towry, 2005; Das & Teng, 2001; Ding, Dekker, & Groot, 2013; Inkpen & Currall, 2004; Langfield-Smith,

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2008; Ring & Van De Ven, 1994; Tong & Crosno, 2021). These systems involve two methods of organisation: hierarchy, emphasizing behaviour constraints and supervision; and price systems, grounded in measuring activity outputs (Hennart, 1993; Ouchi, 1979). Additionally, control systems incorporate social or informal control based on franchisee self-regulation in decision-making stemming from shared values (Fryxell, Dooley, & Vryza, 2002; Hajdini, 2023; Li, Xie, Teo, & Peng, 2010). These systems encompass various activities, processes, practices, rules, and values that provide franchisors with information to assess and manage specific relationship situations (Coletti et al., 2005; Malmi & Brown, 2008; Wang & Dyball, 2019).

Existing literature has examined the effectiveness of behaviour, outcome, and social controls in managing relational and performance risk perceptions, yielding inconsistent results. While theoretical models propose that behaviour controls should manage relational risk, performance risk should be managed by outcome controls, and both should be managed by social controls (Das & Teng, 2001), subsequent studies have revealed different relationships. Behaviour controls have been found to be effective in reducing performance risk perception (Grewal, Kumar, Mallapragada, & Saini, 2013; Lee & Johnson, 2010; Tong & Crosno, 2021) and even increasing it (Heide, Wathne, & Rokkan, 2007). Output controls have proven effective in managing relational risk perception (Heide et al., 2007; Şengün & Wasti, 2007), while social control, rather than direct influence, enhances the effects of behaviour and outcome controls in risk perception management (Heide et al., 2007). However, prior research has often overlooked the influence of contextual factors that generate risk perceptions in their analyses. Contextual variables are deemed significant in the analysis and conceptualisation of risk perception (Jüttner, Peck, & Christopher, 2003; Keh, Der Foo, & Lim, 2002; Oehmen, Locatelli, Wied, & Willumsen, 2020) as well as in the franchisor's choice of control mechanism (Crosno & Brown, 2015; Stump & Heide, 1996). The inclusion of contextual variables that depict risk sources in the analysis of the control effectiveness in risk perception management might help to clarify previous contradictory findings.

Transaction characteristics are not only pivotal in shaping transaction costs and contracting issues (Anderson, Dekker, & Van Den Abbeele, 2017; Fernández-Barcala, González-Díaz, & López-Bayón, 2022; Madhok, 1997; Speklé, 2001; Williamson, 1991, 2010), but also in generating risk perceptions (Dekker, Sakaguchi, & Kawai, 2013; Ding et al., 2013; Hoecht & Trott, 1999; Inkpen & Currall, 2004; Langfield-Smith, 2008). According to the bounded rationality principle (Williamson, 1991) franchisors should focus on specific risk sources rather than abstract risks or isolated perceptions (Heide et al., 2007; Miller, 1992; Stump & Heide, 1996). Their awareness of specific risk sources orientates their use of the control system to obtain critical information, thereby reducing their risk perception (Crosno & Brown, 2015). Accordingly, franchisors' risk perception does not only mirror risk sources, but also involves their options for control in such a way that risk sources will interact with the control system to determine the franchisor's risk perception. Consequently, this study seeks to address the following research question:

How do risk sources within the franchisor-franchisee relationship interact with control systems to manage franchisor relational and performance risk perceptions?

This research contributes to the understanding of control in franchising by analysing the effectiveness of different control types in managing franchisor relational and performance risk perceptions under various circumstances. Franchisors' risk perceptions have been barely examined in the franchising context (Bürkle & Posselt, 2008; Safón & Escribá-Esteve, 2011; Tong & Crosno, 2021) despite being critical to a franchisee's success. This study extends the body of knowledge in risk management in franchising by considering both franchisor relational and performance risk perceptions (Das & Teng, 2001; Langfield-Smith, 2008; Şengün & Wasti, 2007).

Previous studies have mainly described various control forms in franchises rather than evaluating their effectiveness (Brookes & Roper,

2011; Doherty & Alexander, 2006; Hur, Shin, & Hwang, 2022; Tan, Antonio, & Patrick, 2015; Vázquez, 2008; Yakimova, Owens, & Sydow, 2019; Yi, Fortune, & Yeo, 2019). Effective risk perception management through control systems prevents unwarranted decisions, ultimately impacting the success or failure of the franchising venture. This study explores control systems effectiveness by examining how risk sources in the franchisor-franchisee context, combined with the selection of appropriate control types, influence franchisor relational and performance risk perceptions. This approach suggests that risk perceptions alone do not determine control type accuracy but rather that it is the interaction of risk sources and specific control types that manages risk perception.

Many previous studies have relied on relational risk in their theoretical reasoning (Hendrikse, Hippmann, & Windsperger, 2015; Herz, Hutzinger, Seferagic, & Windsperger, 2016; Minarikova, Mumdziev, Griessmair, & Windsperger, 2020; Safón & Escribá-Esteve, 2011; Tong & Crosno, 2021), but to the best of our knowledge, none have measured it. Given the frequent link between franchising termination and franchisee opportunism (Gillis et al., 2020; Michael, 2000, 2002; Sadeh & Kacker, 2020), the analysis and measurement of relational risk might orient the franchisor in their effective use of control systems to manage this opportunism threat.

Survey data from 240 franchisors in Spain were used to investigate the interaction between control systems and risk sources. Structural equation modelling (SEM) is used for data analysis. The findings offer guidance to franchisors in strategically selecting the appropriate control type for the franchisor-franchisee relationship when certain risk sources are present. By considering these risk sources as contextual factors defining the relationship with a franchisee, franchisors can better focus their control systems.

In Section 2, we present the conceptual background of risk perception and control systems in franchising, as well as risk sources and their effect on risk perception management. In Section 3, hypotheses are presented. The methods employed to collect the data and conduct data analysis are explained in Section 4. Section 5 presents the results of the study. Finally, a discussion is presented in Section 6, and the conclusions, theoretical and managerial implications, limitations, and further research are presented in Section 7.

2. Conceptual background

2.1. Franchisor's relational and performance risk perceptions

The main problem with the analysis of the risk concept is that the term "risk" is coined for various phenomena (Janney & Dess, 2006). In management, risk is understood as a loss (downside approach) for which the probability of occurrence, possible negative consequences of risk factors, and their potential effect on objectives are explored. Risk in an inter-organisational context is a matter of perception (Cuypers, Hennart, Silverman, & Ertug, 2021; Lueg & Pedersen, 2021). Therefore, it is necessary to address these perceptions in order to analyse risk management in franchising. The franchisor's risk perception emerges from evaluating the potential effect of risk sources on cooperation and achieving the relationship's goals, from which relational and performance risk perceptions arise, thereby prompting inter-organisational risk perception (Das & Teng, 1996, 1998).

As a hybrid mode of governance, franchising avoids contractual hazards derived from pure market exchanges, and the bureaucratic costs and incentive loss of hierarchies (Williamson & Ghani, 2012, p. 77). In a franchisor-franchisee relationship, the latter can act opportunistically in many situations, including breaching the franchisor's guidelines to raise their own profits by reducing the quality standards of the product/service or increasing the product/service price, concealing the real outlet revenue to evade royalty payment, and developing a business outside the chain using the franchisee's know-how (DiFonzo, Bordia, Gillis, Combs, & Yin, 2020; Fladmoe-Lindquist, 1996; Hajdini & Windsperger,

2019; Kidwell, Nygaard, & Silkoset, 2007; Jell-Ojobor, Hajdini, & Windsperger, 2022; Lafontaine & Shaw, 2005; Michael, 2002; Shane, 1996; Yi et al., 2019). These opportunistic behaviours may damage the chain's reputation, thereby compromising its performance (Sadeh & Kacker, 2020).

The possibility of opportunistic behaviour by franchisees influences the franchisor's relational risk perceptions, which in turn affect their management and decision-making. Relational risk perceptions constitute a key argument in the explanation of franchise aspects, such as contractual completeness (Hendrikse et al., 2015), the relationship between trust and the delegation of decision rights (Herz et al., 2016), the mediating effect of trust on performance (Minarikova et al., 2020), and the influence of a franchisor's specific investments on the use of master international franchising (Jell-Ojobor, Alon, & Windsperger, 2022).

To reduce performance risk, both the franchisor and the franchisee sign a contract to diminish the impact of numerous factors on their success. Factors that could generate risk performance include unexpected deficiencies in franchisee skills, changes in consumer needs, the entry of new competitors, and even global forces that might damage the survival of the relationship (Dahlstrom & Nygaard, 1999; Davies, Lassar, Manolis, Prince, & Winsor, 2011).

To the best of our knowledge, no previous studies have analysed performance risk under this label, although certain studies involve specific aspects of risk: Bürkle and Posselt (2008) explain the existence of franchising mainly related to risk considerations; the risk of brand name misuse has been linked to the allocation of formal and real authority to franchisees by De Azevedo (2009); Safón and Escribá-Esteve (2011) studied the effect of external risk perception on decisions regarding company-owned or franchised units and how the characteristics of franchisors affect these risk perceptions. Finally, Grace and Weaven (2011) analysed the antecedents of risk perceptions of investment by franchisors, and Lanchimba, Windsperger, and Fadaïro (2018) studied the effect of royalty payments on the risk of business failure.

2.2. The control system in franchising

The use of control systems in franchises is essential since franchise contracts are inherently incomplete to avoid excessive restrictions on franchisee freedom (Anderson & Dekker, 2005). These controls are employed to oversee aspects that fall outside the scope of the contract or in settings where exercising contractual safeguards become extremely costly. In these situations, the franchisor uses control systems to monitor and manage the behaviour of franchisees enabling the achievement of desired outcomes by maintaining common processes and brand in numerous outlets (Choo, 2005; Gillis et al., 2020; Kashyap, Antia, & Frazier, 2012; Ketchen, Short, & Combs, 2011; Maalouf, Combs, Gillis, & Perryman, 2020; Pizanti & Lerner, 2003; Yi et al., 2019).

Depending on the object, three types of controls are available: behaviour, outcome, and social (Hennart, 1993; Ouchi, 1979; Ouchi & Maguire, 1975). Behaviour (or process) controls involve monitoring and assessing the processes in executing a task (Choo, 2005; Jaworski, Stathakopoulos, & Krishnan, 1993) and assume that correctly performed actions and processes produce certain outcomes (Choo, 2005; Heide et al., 2007; Kashyap et al., 2012; Yi et al., 2019). The franchisor exercises this type of control by conducting on-site inspections to assess whether the franchisee meets the brand standards, procedures, and requirements contained in the franchise system's operating manuals. For instance, with the aid of undercover shoppers, the franchisor will assess whether the processes of selling, service delivery, and customer service are performed following the established guidelines; through planned or unannounced visits, they also ascertain whether the uniform image is being respected; and the use of webcams allows to check whether the daily activities of the venue are running smoothly. Nevertheless, franchisor behaviour control may generate a feeling of infringement of autonomy for the franchisee, which may lead to counterproductive consequences (Barthelemy, 2008; Crosno & Brown, 2015; Heide et al.,

2007; Kashyap et al., 2012; Tong & Crosno, 2021).

Output (or outcome) controls are based on the assessment of task outcomes, such as the franchisee's sales volume, market quota, inventory turnover ratio, customer satisfaction, delivery time, order accuracy, product quality, and sales costs (Heide, Kumar, & Wathne, 2014; Kashyap et al., 2012). The franchisor uses various tools, such as budgets, cost accounting systems, balanced scorecards, and KPIs systems, to collect such information. This type of control is usually helpful where direct supervision is complicated because of the amount of time franchisees spend interacting with clients (Yi et al., 2019). Unlike behaviour control, outcome control maintains the franchisee's autonomy in deciding how the proposed results are achieved (Crosno & Brown, 2015; Crosno & Tong, 2018; Grewal et al., 2013; Kashyap et al., 2012; Yi et al., 2019). However, it may encourage the franchisee to focus solely on short-term outcomes and undermine established procedures in striving to reach targets (Yi et al., 2019).

Social controls focus on informal cultures and systems, communication, socialisation, and self-regulation (Dekker, 2004; Mahama, 2006). This type of control encourages franchisees to cooperate with the chain through conviction (Heide et al., 2007). In a franchise, social controls materialise in regular meetings between franchisees and franchisor executives, annual conventions, loyalty programs, conferences on the values and beliefs of the franchise, and training programs to inculcate franchise principles (Barthelemy, 2008; Dant & Nasr, 1998; El Akremi, Mignona, & Perrigot, 2010; Mellewig, Ehrmann, & Decker, 2011). This control is considered a crucial prerequisite for the deployment of formal controls (Heide et al., 2007) to achieve franchise goals (Crosno & Brown, 2015; Dekker, 2004; Kashyap et al., 2012; Langfield-Smith & Smith, 2003; Wang & Dyball, 2019; Yakimova et al., 2019; Yi et al., 2019).

2.3. Control systems and risk sources in risk perception management effectiveness

Prior studies regarding control in the management of inter-organisational risk perceptions showed contradictory results. While Das and Teng (2001) concluded that outcome control diminishes performance risks, behaviour control is suitable for relational risk, and social control affects both types of risks, other studies yielded differing results (Chenhall & Langfield-Smith, 1998; Crosno & Brown, 2015; Heide et al., 2007; Lee & Johnson, 2010; Şengün & Wasti, 2007; Tong & Crosno, 2021). For instance, behaviour controls may reduce performance risk perception by clarifying the relationship between inputs and outputs (Grewal et al., 2013; Tong & Crosno, 2021). Lee and Johnson (2010) found that formal controls (behaviour and outcome) attenuate the negative effects of performance risk, while social control strengthens the negative impact of performance risk on an alliance's success. Output control has been found to be efficient in relational risk perception management (Heide et al., 2007; Şengün & Wasti, 2007), whereas behaviour control increases this perception (Heide et al., 2007) and social control is useful only in performance risk management.

This diversity of results may be due to the omission of relevant factors that might explain the control-risk perception relationship. Contextual variables have been proven to be relevant in the franchisor's choice of control to avoid undesirable effects on risk perception (Crosno & Brown, 2015; Stump & Heide, 1996) and many authors have claimed that risk sources should be considered in risk perception analysis (Jüttner et al., 2003; Keh et al., 2002; Oehmen et al., 2020; Tong & Crosno, 2021). The inclusion of risk sources in the analysis of the efficiency of the control system in risk perception management may clarify why one kind of risk perception is managed by a type of control in one situation but not another.

Since franchisors need to be aware of specific risk sources that threaten the relationship and success of the franchise (Lee & Johnson, 2010; Pennings & Wansink, 2004; Roehrich, Selviaridis, Kalra, Van der Valk, & Fang, 2020), risk sources should be concretised in detailed

factors to capture ‘direct managerial assessments of specific risk exposure’ in the analysis of risks and their control (Anderson, Christ, Dekker, & Sedatole, 2015; pp.37), instead of focusing on TCE’s general variables frequency, asset specificity, and uncertainty. Uncertainty is directly related to risk and can be materialised on factors that generate doubts and outcome indeterminacy (Arena, Arnaboldi, & Azzone, 2010; Froud, 2003). Assuming that activity processes and their outcomes are two unique aspects of the activity that can be assessed by a franchisor (Hennart, 1993; Ouchi, 1979), uncertainty factors will generate risk perceptions of the franchisor only if they threaten the franchising process (Varshney & Oppenheim, 2011) and/or impair franchising outcomes (Zsidisin, Ellram, Carter, & Cavinato, 2004). Therefore, uncertainty has been specified into four risk sources:

- a) **The deficiency of franchisees’ skills (SD).** Previous literature (Combs et al., 2004; Das & Teng, 1996; Shane, 1998; Windsperger, 2004) highlights that a franchisee without the required skills may generate performance risk perceptions as the quality of products and services should be maintained (Das & Teng, 1996, 2001, 2004; Inkpen & Currall, 2004). This risk source mainly jeopardises proper process development, thereby increasing probability of process failure (Chiou & Droge, 2015; Schweiger, Albers, Vanderstraeten, & Gibb, 2020). Health franchises, including dental, beauty, and physical therapy clinics, are particularly sensitive to franchisees’ skill deficiencies. A less competent franchisee may fail to deliver services at a standard that positively influences customer satisfaction and brand image and will eventually affect the performance of the entire chain. Furthermore, this risk source generates the franchisor’s relational risk perceptions if the franchisor queries the franchisee skills. If a franchisee’s skills are questionable, it can signal a hidden intention to exploit the franchised outlet at the expense of the chain’s interests (Combs et al., 2004).
- b) **Difficulty in protecting franchise know-how (DPKH).** This risk source has received special attention in inter-organisational relationships (Dahlstrom & Ingram, 2003; Das & Teng, 1998, 2004; Inkpen & Currall, 2004; McCutchen, Swamidass, & Teng, 2004). A franchise with an easily imitable image and/or processes might lead to the franchisor’s relational risk perception because of the fear that the franchisee might replicate this know-how to establish an independent business, thereby avoiding payment of agreed fees and royalties (Windsperger, 2004). The ease of imitation is perceived as being more related to the franchising process than to outcomes. The processes, site selection, store layout, product design, and procurement shape a franchise’s knowhow and should be difficult to imitate. In certain franchises, such as massage parlours, hairdressing salons, and spas, the know-how is very similar and difficult to protect because of the complexity in ascertaining whether the intellectual property is the franchisor’s or the franchisee’s previous skills.
- c) **Franchisor’s non-satisfaction with their own gains (NSOG).** This risk source generates risk perceptions from outcomes based on the franchisor’s valuation of the received gains as lower than those expected, suggesting possible opportunism by the franchisee (Das & Teng, 1996; Gërdoçi, Skreli, Panariti, & Repaj, 2016; Scheer, Kumar, & Steenkamp, 2003). When a franchisee reports unexpectedly low revenue, the franchisor may query the authenticity of the information and whether the franchisee is evading payments to the franchisor (Das & Teng, 1996; Scheer et al., 2003). Similarly, a franchisor may suspect opportunistic intentions from franchisees who demand additional franchisor investment, such as local advertising for their geographical area, promotions and special offers for their outlets, and frequent technical support, but do not deliver the benefits accordingly. Noteworthy, this franchisor’s dissatisfaction is not related to the underestimation of entry fees or the setting of royalties, but to the potential franchisee’s opportunism.
- d) **Fulfilment of franchisor’s expected economic gains (EEG) and expected non-economic gains (ENEG).** A franchisor expects to

receive franchise fees and royalty as future payments, as well as access to new geographical markets and overseas expansion, thereby increasing brand awareness and adding knowledge that potentially improves the network’s processes and products/services (Fladmoe-Lindquist, 1996; Nooteboom, Berger, & Noorderhaven, 1997; Schreiner, Kale, & Corsten, 2009; Shane, Shankar, & Aravindakshan, 2006; Sobrero & Roberts, 2001; Yu, Yan, & Cheng, 2002). This risk source generates relational risk perception by the franchisor because of its dependence on the franchisee for these gains, which increases the vulnerability to the franchisees’ opportunistic behaviour (Blut et al., 2011; Tong & Crosno, 2021). By contrast, if the franchisor has low expectations of benefits from the franchisee, they might evaluate the failure of the franchised business as more probable. The expectation of low economic returns, usually related to a franchisee’s inadequate performance and/or an estimation of only minor potential chain improvements, generates a franchisor’s performance risk perception (Ghantous & Christodoulides, 2020; Yakimova, Owens, & Freeman, 2021).

3. Hypotheses development

The franchisor should be aware that their risk perception is influenced by not only the factors that threaten the franchise relationship but also the type of information that they receive from the control system. Given that risk sources cause risk perceptions by threatening franchise processes and/or outcomes (Hennart, 1993; Ouchi, 1979), the threatened aspect might influence the suitability of the information and, therefore, the efficiency of the control type in managing the franchisor’s risk perception. Using a suitable control provides the franchisor with appropriate information to manage and supervise risky situations (Long, 2018). Thus, the interaction between control type and the source of risk suggests that neither the control nor the risk source solely determines the franchisor’s risk perception. Instead, it is the joint effect of control and risk sources that influences risk perception. In this regard, the effectiveness of the control system depends on its contextual adaptation (Crosno & Brown, 2015; Stump & Heide, 1996). Consequently, behaviour controls are effective if risk sources generate risk perception through their threats to processes and behaviours; outcome controls are effective if the franchisor perceives risk from threats to the outcomes and results; and social controls are effective if the franchisor perceives risk from any threat.

3.1. Risk sources and behaviour control effectiveness on risk perception management

From the risk sources, the franchisees’ skill deficiency (SD), difficulty encountered in protecting the franchise’s know-how (DPKH), and franchisor’s expectations regarding non-economic gain attainment (ENEG) constitute threats to franchise processes development.

In the case of a low-skilled franchisee, which increases the probability of poor franchisee performance (Schweiger et al., 2020), behaviour control information allows the franchisor to monitor activities that can be affected by this skill deficiency. This information increases the franchisor’s knowledge regarding vulnerable processes, enables them to rectify the inappropriate processes—such as implementing customised training plans to improve franchisees’ skills—and therefore reduces the franchisor’s performance risk perception. Conversely, the franchisor’s monitoring of franchisee’s behaviours reduces their concerns about any hidden motives the franchisee may have for joining the chain (El Akremi et al., 2010). This, in turn, guides their subsequent decision-making and lowers their perception of relational risk. Therefore, the following hypothesis is proposed:

H1a. The interaction between behaviour control and a franchisee’s deficiency in skills has a negative impact on relational and performance risk perceptions.

Similarly, when franchise know-how is easily imitable, information about the franchisees' behaviour serves as a signal for the franchisor to assess the proper execution of processes, which reduces uncertainty about opportunism and allows franchisors to anticipate it thereby reducing relational risk perception (Gorovaia & Windsperger, 2010; S. Shane, 1998). If this information indicates that franchisees are effectively implementing these processes, it enables the franchisor to determine whether franchisees are acquiring easily replicable business knowledge for use in other ventures, potentially at the expense of the franchised outlets. Therefore, the following hypothesis is proposed:

H1b. The interaction between behaviour control and difficulty in protecting know-how has a negative impact on relational risk perception.

Finally, the franchisor's concerns regarding the franchisee's attainment of expected non-economic gains can be mitigated by receiving information related to franchisee behaviour concerning compliance with processes designed to enhance product or service delivery and/or adapt them to local markets (Mignonac, Vandenberghe, Perrigot, El Akremi, & Herrbach, 2015; Schreiner et al., 2009; Watson, Senyard, & Dada, 2020). Behaviour control informs whether the franchisee is accurately executing these activities, thereby reducing concerns regarding potential opportunism and, consequently, perception of relational risk. Furthermore, the evaluation of the processes related to the expected non-economic gains, often linked to customer attendance and satisfaction (Gill & Kim, 2021), impacts on franchisor's perception of performance risk. Therefore, the following hypothesis is proposed:

H1c. The interaction between behaviour control and the franchisor's expected non-economic gains has a negative impact on relational and performance risk perceptions.

3.2. Risk sources and outcome control effectiveness on risk perception management

The franchisor's non-satisfaction with their own gains (NSOG), fulfilment of expected economic gains (EEG), and fulfilment of expected non-economic gains (ENEG) can be viewed as risk sources largely related to franchise outcomes. In such cases, outcome control information may show deviations from expected targets, thereby signalling to the franchisor both covert outcomes and actual level of fulfilment of the expected gains (Kashyap et al., 2012).

The franchisor's dissatisfaction with their gains can lead to suspicions regarding the information reliability and whether the franchisee is evading payments to the franchisor (Das & Teng, 1996; Scheer et al., 2003). Such concerns can be alleviated by the information provided through outcome control. Data on the number of customers, customers satisfaction levels, suggestions made by franchisees to the central office, income, and budgetary deviations can help mitigate the franchisor's concerns about the franchisee's opportunistic behaviour (El Akremi et al., 2010). In this scenario, the use of outcome controls when the franchisor is dissatisfied with their gains lowers the franchisor's perceived relational risk. The proposed hypothesis is:

H2a. The interaction between outcome control and franchisor's dissatisfaction with their own gains has a negative impact on relational risk perception.

Similarly, outcome control data, including performance and proposed improvement reports, reassure the franchisors of the achievements of expected economic and non-economic gains by reducing suspicions regarding the franchisee's hidden motives and the performance of the franchise (Yi et al., 2019). This information on franchisee results and outcomes may lower the franchisor's assessment of the probability of opportunistic behaviours by franchisees, as the outcome data indicates that they are acting in line with the relationship (El Akremi et al., 2010). Furthermore, the franchisor's concerns about the

business's potential for failure due to low expectations of economic and non-economic gains can be alleviated through the reporting of favourable outcomes and the apparent overall success of the business. The proposed hypotheses are as follows:

H2b. The interaction between outcome control and the fulfilment of the franchisor's expected economic gains has a negative impact on relational and performance risk perceptions.

H2c. The interaction between outcome controls and the fulfilment of the franchisor's expected non-economic gains has a negative impact on relational and performance risk perceptions.

3.3. Risk sources and social control effectiveness on risk perceptions management

Finally, social controls are suitable in any situation and can influence the franchisor's evaluation of threats posed by various risk sources (Das & Teng, 2001; Karmeni, de la Villarmois, & Beldi, 2018). Franchisees' strong sense of identity and loyalty to the chain, fostered through social controls such as conventions, discussions on franchise's principles, and training programs, build the trust of the franchisor (El Akremi et al., 2010).

In high-risk situations, social control tools that promote the franchisee's commitment to the chain and its values can reduce the franchisor's evaluation of the probability of franchisee opportunism (El Akremi et al., 2010; Mignonac et al., 2015). In terms of the perception of performance risk, fostering a franchisee's sense of pride significantly contributes to enhancing the franchisor's perception of control over factors that may hinder the attainment of potential benefits, consequently reducing the perceived performance risk (Yakimova et al., 2019). Therefore, the higher the level of social control in the franchisor-franchisee relationship under any risk source, the lower the risk perception. The related hypotheses are:

H3a. The interaction between social control and the franchisee's deficiency of skills has a negative effect on relational and performance risk perceptions.

H3b. The interaction between social control and difficulties in protecting know-how has a negative effect on relational risk perceptions.

H3c. The interaction between social control and the franchisor's dissatisfaction with their own gains has a negative effect on relational risk perceptions.

H3d. The interaction between social control and the fulfilment of the franchisor's expected economic gains has a negative effect on relational risk perceptions.

H3e. The interaction between social control and the fulfilment of the franchisor's expected non-economic gains has a negative effect on performance and relational risk perceptions.

The proposed relationships are illustrated in Fig. 1.

4. Methods

4.1. Questionnaire design

To examine how the presence of risk sources affects the effectiveness of different controls in relational and performance risk perceptions reduction, we analysed the relationship between the franchisor and a single franchisee. To ensure both the correct structure and wording of the questionnaire and the accurate process of survey administration to facilitate a high response rate, the Total Design Method for research surveys was employed as proposed by Dillman in 1978, which was more recently updated (Dillman, Smyth, & Christian, 2014).

The proposed items were selected from the previous literature. We measured Outcome Control (OC) and Behaviour Control (BCS and BCP)

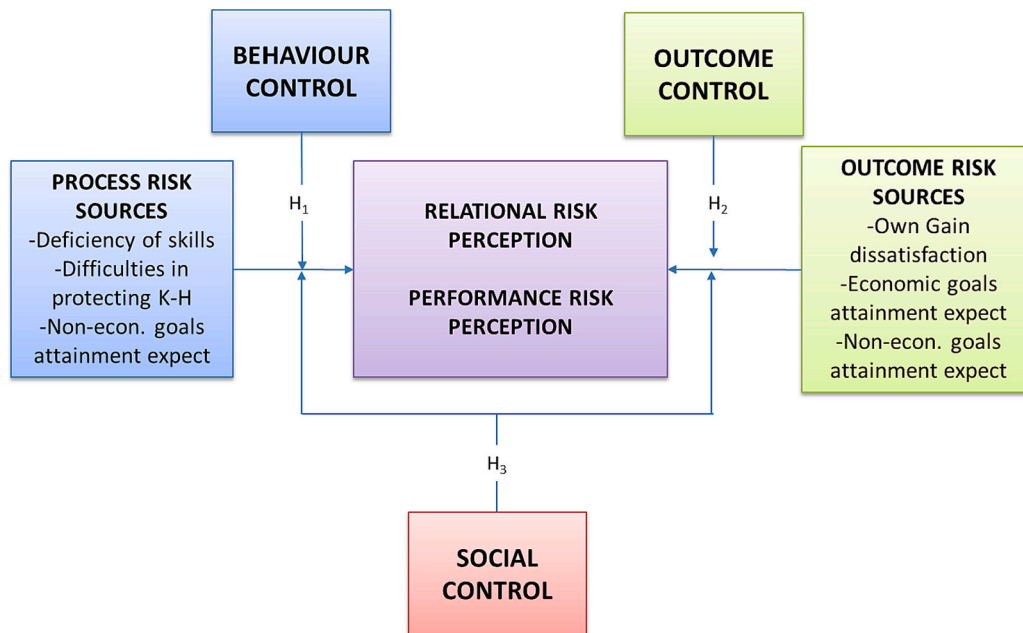


Fig. 1. Conceptual framework.

using scales developed by Ouchi and Maguire (1975) and later adapted to the inter-organisational context (Beimborn, Schlosser, & Weitzel, 2009; Celly & Frazier, 1996; Hernández-Espallardo, Rodríguez-Orejuela, & Sánchez-Pérez, 2010; Şengün & Wasti, 2007). Social Control (SC) was measured using Ouchi and Maguire (1975) scale, which focuses on the constructs of ‘sense of pride’ and ‘franchise values’ (Alzaydi, Jayawardhena, Nguyen, Foroudi, & Palazzo, 2022; Becker, 2012; Das & Teng, 2001; Fryxell et al., 2002; Peris-Ortiz, 2009). The instrument designed by Parkhe (1993) was employed to measure Relational Risk perceptions (RL Risk), as was done in the inter-organisational context (Bazyar, Teimoury, & Fesharaki, 2013; Delerue, 2004; Soleimani Zoghi & Müge Arslan, 2017). This consists of asking respondents to evaluate the possibility of opportunistic behaviour by a franchisee. Performance Risk perceptions (PRF Risk) were measured using questions proposed by Simons (2000), which were subsequently used by Widener (2007) to measure risk perceptions. The franchisee’s Skill Deficiency (SD) was measured using Mayer and Davis (1999) scale, involving reverse-scoring the data. To analyse Difficulties in Protecting Know-How (DPKH), Delerue (2004) instrument for measuring the possibility of a loss of core proprietary capabilities in inter-organisational settings was employed. No Satisfaction with Own Gains (NSOG) was measured using Chatterjee (2004) scale of satisfaction with gains from a relationship compared to one’s own contribution. Based on the analysis of strategic gains developed by Ariño (2003), we selected items for Expected Economic Gains (EEG) from cost-cutting and economies of scale and Expected Non-Economic Gains (ENEG) from procedures and skills.

Our analyses also included four control variables that might affect a franchisor’s risk perception. Internationality and R&D activities, proposed by Das and Teng (1996), have been considered risk factors in all collaborative ventures. These were measured using dummy variables indicating the existence of R&D investments and international activities (McCutchen, Swamidass, & Teng, 2004; Shane, 1996; Watson et al., 2020). Nooteboom (1993) claimed that organisational size diminishes risk perception. Organisational size was measured using the logarithm of average franchisor sales per year. Finally, franchisor age (Barthelemy, 2008; Inkpen & Currall, 2004) was measured as the logarithm of years of franchisor activity.

The questionnaire was subsequently submitted for double translation (first English to Spanish and then Spanish to English by different bilingual translators) to ensure evidence of construct validity (APA, 2020).

The first draft of the questionnaire was then evaluated by six researchers with expertise in franchising, control systems, and risk analysis, who examined the survey structure and construct validity by considering theory and proper wording. We interviewed 14 franchisors to assess their understanding of the questions. This helped to determine the roles of the respondents in regard to the management of franchisor-franchisee relationships. Subsequently, the wording of several survey questions was changed, indirect questions that Spanish speakers usually answer incorrectly were amended, and franchisor CEOs and expansion managers were selected as respondents.

In the questionnaire layout, an introductory text was included in which respondents were invited to freely consider one franchisee when answering the questions. The final draft of the questions is presented in Table 1.

4.2. Sampling and data collection

Spain, being the fourth largest economy in the European Union in terms of GDP after Germany, France, and Italy (Worldbank Group, 2021), is the second largest economy in terms of the number of franchised brands after France (Fédération Française Franchise, 2022). The Spanish context was selected in response to previous calls for research on franchising outside North America (Dant, 2008; Verbieren, Cools, & Abbeele, 2008).

The target population comprised franchisor companies with central offices in Spain, and data was extracted from the yearbook of a private Spanish consulting firm that specialises in franchising. This type of data source is frequently used in franchising studies, as >80% of the data is verified for accuracy (Alon, 1999; Combs et al., 2004; Lafontaine & Slade, 1996; Shane, 1996; Shane & Spell, 1998). Information collection was finalised in 2018. Issues such as the dissolution of the company and the termination of franchising (i.e. by moving to a different contractual relationship) reduced the target population from 840 to 777.

Data were collected through a telephone survey, which resulted in 240 completed questionnaires. A response rate of 30.88% is considered acceptable (Futrell, 1994). From the sample, 138 firms (57.5%) belong to the services sector, while the remaining 102 (42.5%) are from retail. The number of franchise chain outlets ranged from 1 to 2719 for supermarket chains, with an average number of 75.51 branches. The entry fee ranged from 0€ to 61,500€ with an average of 13,122€, and the

Table 1
Measurement model.

Construct name	Construct Measurement	λ (T- Value)	λ_{cmb} (T- Value)	ω (T- Value)
Relational Risk	They have always provided us with a completely truthful picture of their business. [R-S]	0.732 (*)	0.697 (*)	-0.237 (-2.04)
($\alpha = 0.719$ CR = 0.748 AVE = 0.503)	Complete honesty does not pay when dealing with my franchisee.	0.806 (8.26)	0.813 (8.63)	-0.09 (-0.88)
(Bazyar et al., 2013; Delerue, 2004; Parkhe, 1993; Soleimani Zoghi & Müge Arslan, 2017)	My franchisees carry out their duties even when we do not check up on them. [R-S]	0.570 (6.99)	0.563 (6.63)	-0.078 (-0.57)
Performance Risk	To what extent is the quality of the product/service relevant to this franchisee's success?	0.787 (*)	0.772 (*)	-0.108 (-0.97)
($\alpha = 0.896$ CR = 0.887 AVE = 0.725)	To what extent is the reliability of the product/service relevant to this franchisee's success?	0.878 (14.32)	0.917 (12.7)	0.069 (0.57)
(Simons, 2000; Widener, 2007)	To what extent is the efficiency of the product/service relevant to this franchisee's success?	0.887 (9.98)	0.864 (10.06)	-0.222 (-1.97)
Outcome Control	I establish specific performance goals for my franchisee.	0.810 (*)	0.836 (*)	-0.214 (-2.11)
($\alpha = 0.887$ CR = 0.887 AVE = 0.724)	If performance goals are not met, I require the franchisee to explain why.	0.886 (15.20)	0.883 (14.68)	0.080 (0.83)
(Beimborn et al., 2009; Celly & Frazier, 1996; Hernández-Espallardo et al., 2010; Ouchi & Maguire, 1975; Şengün & Wasti, 2007).	I give feedback to my franchisee concerning the extent to which they achieve their goals.	0.855 (15.08)	0.848 (14.66)	0.055 (0.53)
Behavioural Control (Sales)	<i>We strive to influence franchisee activities, such as:</i>			
($\alpha = 0.696$ CR = 0.711 AVE = 0.454)	The franchisee's promotional activities for our products.	0.673 (*)	0.692 (*)	-0.049 (-0.52)
(Beimborn et al., 2009; Celly & Frazier, 1996; Hernández-Espallardo et al., 2010; Ouchi & Maguire, 1975; Şengün & Wasti, 2007).	The way the franchisee introduces new products.	0.751 (6.43)	0.735 (6.60)	0.142 (1.44)
	The franchisee's sales policy and procedures for new products.	0.591 (7.96)	0.603 (7.82)	-0.040 (-0.33)
Behavioural Control (Process)	I monitor the extent to which my franchisee follows established procedures.	0.833 (*)	0.815 (*)	0.158 (1.12)
($\alpha = 0.876$ CR = 0.877 AVE = 0.704)	I evaluate the procedures my franchisee uses to accomplish a given task.	0.851 (14.28)	0.846 (12.38)	0.125 (0.90)
(Beimborn et al., 2009; Celly &	I give feedback on how my franchisee	0.834 (11.08)	0.797 (10.55)	0.287 (2.72)

Table 1 (continued)

Construct name	Construct Measurement	λ (T- Value)	λ_{cmb} (T- Value)	ω (T- Value)
(Frazier, 1996; Hernández-Espallardo et al., 2010; Ouchi & Maguire, 1975; Şengün & Wasti, 2007).	accomplishes the procedures.			
Social Control	The work environment encourages my franchisees to feel a sense of pride in our franchise.	0.767 (*)	0.733 (*)	0.207 (2.08)
($\alpha = 0.854$ CR = 0.865 AVE = 0.765)	The work environment encourages my franchisees to acquire the franchise values.	0.973 (6.29)	0.951 (5.53)	0.234 (2.30)
(Alzaydi et al., 2022; Becker, 2012; Das & Teng, 2001; Fryxell et al., 2002; Ouchi & Maguire, 1975; Peris-Ortiz, 2009)	Franchisee Deficiency of Skill			
($\alpha = 0.889$ CR = 0.893 AVE = 0.680)	My franchisee is very capable of performing their job. [R-S]	0.914 (*)	0.871 (*)	-0.312 (-2.79)
(Mayer & Davis, 1999)	My franchisee is well-qualified. [R-S]	0.910 (20.10)	0.897 (18.5)	-0.161 (-1.45)
	My franchisee is knowledgeable about the work that needs doing. [R-S]	0.774 (13.59)	0.773 (12.57)	-0.103 (-0.95)
	I feel very confident about my franchisee's skills. [R-S]	0.676 (7.83)	0.665 (7.51)	-0.116 (-1.00)
Difficulty in Protecting Know-how	Our company has been able to protect its core capabilities and skills from undue appropriation by the franchisee. [R-S]	0.719 (*)	0.590 (*)	-0.301 (-3.42)
($\alpha = 0.777$ CR = 0.780 AVE = 0.639)	Our company has been successful in protecting our know-how from being appropriated by the franchisee. [R-S]	0.890 (7.95)	0.978 (3.84)	-0.208 (-1.57)
(Delerue, 2004)	No satisfaction with own gains			
	We are satisfied with our share of financial gains in relation to our contributions in this alliance. [R-S]	0.798 (*)	0.738 (*)	-0.263 (-2.62)
($\alpha = 0.782$ CR = 0.782 AVE = 0.642)	We are satisfied with our share of non-financial gains in relation to our contributions in this alliance. [R-S]	0.805 (9.64)	0.856 (8.52)	-0.040 (-0.39)
(Chatterjee, 2004)	Expected Non-economic Gains			
($\alpha = 0.917$ CR = 0.918 AVE = 0.848)	From this relationship, we hope to develop: New technologies	0.893 (*)	0.913 (*)	-0.118 (1.10)
(Ariño, 2003)	New skills	0.950 (13.33)	0.927 (12.67)	-0.014 (-0.12)
	Expected Economic Gains			
($\alpha = 0.824$ CR = 0.828 AVE = 0.620)	Reduction of costs	0.721 (*)	0.736 (*)	0.011 (0.11)
(Ariño, 2003)	Economies of scale	0.685 (8.93)	0.673 (9.02)	0.213 (2.41)
	Reduction of hazards	0.934 (11.65)	0.913 (12.34)	0.121 (1.30)

λ is the standardised loading of each indicator on the construct with no Common Method Bias; λ_{cmb} is the standardised loading of each indicator on the construct with Common Method Bias; ω is the Common Method Weight.

[R-S] Reversed Score.

Measurement model goodness-of-fit indices that consider there to be no contamination of Common Method Bias are χ^2_{SB} (df) 388.711 (350) P-Value 0.075 RMSEA_{robust} 0.022 GFI 0.884 CFI_{robust} 0.983. Measurement model goodness-of-fit indices that assume Common Method Bias contamination are χ^2_{SB} (df) 340.201 (320) P-Value 0.209 RMSEA_{robust} 0.016 GFI 0.9 CFI_{robust} 0.991. The Satorra-Bentler Scaled Difference is 46.2387 (df = 30) and Chi-Square probability = 0.029483.

franchisee’s initial investment ranged from 0€ to 437,000€, with 83,139€ as the average initial investment across the sample.

4.3. Data analysis

Non-response bias was tested by comparing the sample and population characteristics, the most accurate me in our context (see Clotthey (2013) for a deeper understanding). Binomial tests showed that the sample reflected the composition of the population in terms of internationalisation, and non-parametric chi-square tests revealed no non-response bias in terms of sector and size (Diamond, 1994).

Exploratory factor analysis pointed to the factor structure proposed in the questionnaire, showing two factors for the case of the behaviour control construct, namely *Behaviour controls related to sales activities* (BCSA) and *Behaviour controls related to franchise process development* (BCP).

Regarding common method bias, a single-common-method factor approach was employed (Podsakoff, Mackenzie, & Podsakoff, 2012). All items of the questionnaire were loaded on their theoretical construct as well as on a common factor latent variable. The test of the difference between the Satorra-Bentler Chi-square statistic (Satorra & Bentler, 2001) of the measurement model with and without the latent factor showed that the latent factor improved the fit of the measurement model. Therefore, the common method variance was confirmed (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). However, a second round of analysis showed that this method bias was not observed for the four models tested. In this round, models were created considering only the factors that were analysed together to test the hypotheses. An analysis of the modification indices shows that no common variance exists in these measurement models (Iacobucci, 2009).

Finally, the measurement model was refined and assessed for appropriate psychometric properties, with a focus on SEM testing. Table 1 summarises a confirmatory factor analysis of the items using EQS. 6.3 (Bentler, 2004) and distinguishes between loading values with and without considering contamination from the common method bias.

The lowest loading factor was 0.570, the third item of the relational risk factor. Following Bagozzi and Yi (2012), we focus on the significance of parameters by considering a cut-off of 0.5 as acceptable, wherein reliability and variance can present lower values than those

normally accepted. However, as Bagozzi and Yi (2012) remarked, model fit and significance, together with theory, should drive an understanding of the scale properties in SEM models. In summary, the fit, validity and reliability of the measurement model was acceptable (Table 1), and all items presented significant values. Discriminant validity was also confirmed (see Table 2) (Fornell & Larcker, 1981).

The latent moderated SEM method employed to estimate multiple latent interactions considers the non-normality explicitly caused by latent non-linear terms and measurement errors (Asparouhov & Muthén, 2021; Moosbrugger, Schermelleh-Engel, Kelava, & Klein, 2009). This method enables testing of interactions by controlling for possible correlations between the items that measure the factors involved in the interaction term. However, this constrains the possibility of running complex models because it requires a greater computing capacity than most personal computers (Cheung, Cooper-Thomas, Lau, & Wang, 2021), compelling simplification of the model. Therefore, the model was divided according to the control type that interacts with each group of risk sources to reduce perceived risks. This introduces specification problems in the analysis, which, in turn, leads to variations in parameter size across the models. As Maydeu-Olivares (2017) explains, sampling point estimates of parameters are seldom the main interest of SEM; however, as misspecification may affect these parameters, it is better to analyse confidence intervals than point estimations. By analysing the confidence intervals, it can be concluded that the parameters range similarly across the models.

5. Results

The results are presented in Table 3, where each column represents the control type that interacts with the proposed risk sources and the dependent variables (RL Risk or PRF Risk). Regarding direct effects, both behaviour control dimensions had negative parameters, so they directly reduce relational (β^{rlr} represents RL Risk as the dependent variable) ($\beta^{rlr}_{BCSA} = -0.186$; p-value <0.05; $\beta^{rlr}_{BCP} = -0.0165$; p-value <0.05) and performance risk perceptions (β^{prfr} represents PRF Risk as the dependent variable) ($\beta^{prfr}_{BCSA} = -0.101$; n.s.; $\beta^{prfr}_{BCP} = -0.289$; p-value <0.01). Outcome control information affects the franchisor’s perception of performance risk ($\beta^{prfr}_{OC} = -0.149$; p-value <0.1) but did not influence the perception of relational risk ($\beta^{rlr}_{OC} = -0.108$; p < 0.1). Finally, social control decreased both relational risk ($\beta^{rlr}_{SC} = -0.179$; p-value <0.1) and performance risk ($\beta^{prfr}_{SC} = -0.203$; p-value <0.05).

Our hypotheses propose the existence of interactions between risk sources and control systems. The significance of interactions was tested using both (a) the associated z-test, which shows the significance of the parameter of the interaction term, and (b) the likelihood-ratio Chi-squared difference test to test the joint significance of several interaction terms (Asparouhov & Muthén, 2021) using the software MPlus. This test is based on the fact that the $2 \times$ (Loglikelihood null model –

Table 2
Descriptive statistics, correlation coefficients of factors, and the square root of AVE (diagonal).

	RRL Risk	PRF Risk	OC	BCS	BCP	SC	SD	DPKH	NSOG	ENEG	EEG
Mean	2.032	2.232	4.609	5.604	5.450	6.186	2.076	2.774	2.549	4.621	4.337
Stand Dev	0.895	1.145	1.738	1.153	1.296	0.772	1.133	1.509	1.146	1.756	1.52
RL Risk	0.709										
PRF Risk	0.145	0.851									
OC	-0.090	-0.114	0.851								
BCSA	-0.170	-0.216	0.267	0.674							
BCP	-0.226	-0.328	0.281	0.482	0.839						
SC	-0.309	-0.337	0.316	0.494	0.361	0.875					
SD	0.431	0.212	-0.077	-0.055	-0.166	-0.250	0.824				
DPKH	0.222	0.061	-0.107	-0.029	-0.149	-0.155	0.191	0.799			
NSOG	0.449	0.077	-0.092	-0.194	-0.297	-0.242	0.449	0.154	0.801		
ENEG	-0.198	-0.203	0.026	0.192	0.127	0.240	-0.120	0.091	-0.110	0.921	
EEG	-0.087	-0.070	0.162	0.282	0.162	0.203	-0.091	0.061	-0.102	0.385	0.787
Common Method	0.116	0.048	0.016	-0.030	-0.154	-0.172	0.171	0.152	0.099	0.050	-0.093

N = 240; All correlations with absolute value larger than 0.13 are significant at the p < 0.05 level.

Table 3
Hypotheses testing.

		Model 1a Behaviour Control Sales Activities		Model 1b Behaviour Control Sales Activ. Interaction		Model 2a Behaviour Control Process		Model 2b Behaviour Control Process Interaction	
		RL Risk	PRF Risk	RL Risk	PRF Risk	RL Risk	PRF Risk	RL Risk	PRF Risk
Control Variables	Internationality	-0.106** (0.05)	0.041 (0.064)	-0.144** (0.063)	0.058 (0.068)	-0.110** (0.066)	0.027 (0.068)	-0.104 (0.064)	0.051 (0.069)
	R&D Activities	0.011 (0.066)	0.059 (0.068)	0.012 (0.065)	0.112 (0.066)	0.002 (0.067)	0.036 (0.067)	-0.027 (0.064)	0.032 (0.067)
	Franchisor Age	0.165 (0.074)	0.058 (0.064)	0.143** (0.064)	0.076 (0.063)	0.181** (0.066)	0.085 (0.062)	0.149** (0.064)	0.097 (0.060)
	Sales	-0.109 (0.084)	0.026 (0.059)	-0.125** (0.064)	0.030 (0.059)	-0.113 (0.066)	0.025 (0.062)	-0.117* (0.063)	0.033 (0.054)
Risk Sources	Deficiency of Skills (DS)	0.464*** (0.078)	0.212** (0.089)	0.453*** (0.065)	0.141* (0.079)	0.452*** (0.065)	0.182*** (0.086)	0.488*** (0.064)	0.136* (0.075)
	Difficulty in Protecting KH (DPKH)	0.145 (0.096)	0.045 (0.087)	0.224*** (0.068)	0.013 (0.084)	0.130 (0.091)	0.007 (0.018)	0.111 (0.079)	0.015 (0.186)
	Expected Non-economic Gains (ENEG)	-0.123 (0.090)	-0.166** (0.080)	-0.112 (0.069)	-0.188** (0.084)	-0.127 (0.076)	-0.156* (0.084)	-0.156** (0.067)	-0.175** (0.088)
Control Types	Behaviour Control Sales Activities (BCSA)	-0.137 (0.082)*	-0.202* (0.114)	-0.186** (0.077)	-0.101 (0.104)				
	Behaviour Control Process (BCP)					-0.165* (0.073)	-0.335*** (0.094)	-0.165** (0.047)	-0.289*** (0.084)
Interactions	DSxBCSA			-0.164** (0.073)	-0.121 (0.078)				
	DPKHxBCSA			-0.134* (0.082)	0.169** (0.166)				
	ENEGxBCSA			-0.187** (0.083)	0.280*** (0.130)				
	DSxBCP							0.029 (0.054)	-0.036 (0.069)
	DPKHxBCP							-0.334*** (0.071)	-0.156 (0.231)
	ENEGxBCP						0.024 (0.065)	0.211* (0.109)	
Model fit χ^2_{df} (df) p-value		176.860 (125); 0.0016	179.775 (125); 0.0010			187.946 (125); 0.0002	195.799 (125); 0.0001		
RMSEA		0.052	0.043			0.046	0.049		
2Diff Loglikelihood (df); p-value				16.206 (3); 0.0010	21.924 (3); 0.000			15.010 (3); 0.0018	14.738 (3); 0.002

		Model 3a Outcome Control		Model 3b Outcome Control Interaction		Model 4a Social Control		Model 4b Social Control Interaction	
		RL Risk	PRF Risk	RL Risk	PRF Risk	RL Risk	PRF Risk	RL Risk	PRF Risk
Control Variables	Internationality	-0.066 (0.049)	0.042 (0.065)	-0.069 (0.048)	0.031 (0.062)	-0.088 (0.056)	0.013 (0.067)	-0.078 (0.054)	-0.009 (0.076)
	R&D Activities	0.004 (0.009)	0.073 (0.074)	0.014 (0.067)	0.064 (0.071)	-0.028 (0.068)	0.053 (0.067)	-0.041 (0.068)	0.069 (0.069)
	Franchisor Age	0.168** (0.072)	0.055 (0.062)	0.148** (0.068)	0.062 (0.059)	0.171** (0.078)	0.010 (0.010)	0.164** (0.072)	0.040 (0.066)
	Sales	-0.093 (0.083)	0.030 (0.056)	-0.089 (0.089)	0.023 (0.053)	-0.135 (0.084)	-0.010 (0.058)	-0.125 (0.089)	-0.008 (0.067)
Risk Sources	No Satisfaction with gains (NSOG)	0.545*** (0.077)	0.061 (0.086)	0.522*** (0.080)	0.056 (0.094)	0.366*** (0.101)	-0.093 (0.084)	0.328*** (0.108)	-0.063 (0.074)
	Expected Economic Gains (EEG)	0.048 (0.082)	0.024 (0.080)	0.061 (0.078)	0.067 (0.079)	0.058 (0.083)	0.048 (0.073)	0.013 (0.087)	0.021 (0.076)
	Expected Non-Economic Gains (ENEG)	-0.153* (0.089)	-0.217** (0.094)	-0.206*** (0.078)	-0.237** (0.101)	-0.112 (0.096)	-0.147* (0.086)	-0.119 (0.090)	-0.159* (0.094)
	Deficiency of skills (DS)					0.325*** (0.091)	0.193** (0.090)	0.299*** (0.087)	0.107 (0.093)
	Difficulty in Protecting KH (DPKH)					0.082 (0.115)	0.007 (0.071)	0.203** (0.089)	0.001 (0.087)
Control Types	Outcome Control (OC)	-0.064 (0.076)	-0.123 (0.078)	-0.108 (0.085)	-0.149* (0.080)				
	Social Control (SC)					-0.217** (0.099)	-0.308*** (0.076)	-0.179* (0.093)	-0.203** (0.086)
Interactions	NSOGxOC			-0.222* (0.116)	0.105 (0.105)				
	EEGxOC			-0.173** (0.088)	-0.093 (0.097)				

(continued on next page)

Table 3 (continued)

	Model 3a Outcome Control		Model 3b Outcome Control Interaction		Model 4a Social Control		Model 4b Social Control Interaction	
	RL Risk	PRF Risk	RL Risk	PRF Risk	RL Risk	PRF Risk	RL Risk	PRF Risk
ENEGxOC			0.086 (0.095)	0.216* (0.113)				
NSOGxSC							-0.090 (0.173)	0.086 (0.061)
EEGxSC							0.000 (0.099)	-0.084 (0.075)
ENEGxSC							0.041 (0.125)	0.224** (0.104)
DSxSC							0.060 (0.085)	-0.093 (0.062)
DPKHxSC							-0.333** (0.150)	0.065 (0.142)
Model fit χ^2_{df} (df) p-value	206.286 (109); 0.000	200.195 (109); 0.000			400.291 (197); 0.000	394.242 (197); 0.000		
RMSEA	0.061	0.059			0.066	0.065		
2Diff_Loglikelihood (df); p-value			12.286(3); 0.006	9.4 (3); 0.024			12.638 (3) 0.006	18.568 (3) 0.000

Note: *, **, and *** indicate p-value significant at <0.1, 0.05, and 0.01, respectively. N = 240; Standardised coefficients are reported; standard errors appear in brackets.

Loglikelihood model with interactions) follows a Chi-squared difference test for which the number of degrees of freedom corresponds to the number of interactions added; the null hypothesis states that the model without interactions should be accepted. Therefore, when the p-value of the test was lower than 0.05, the models that included the interaction terms were accepted. The results of the Z-test and Likelihood-ratio Chi-squared difference test are shown in Table 3. The significance of the Likelihood-ratio test confirms the appropriateness of all Type “b” models (including interactions) compared with those of Type “a” (neglecting interactions).

H1a proposes that behaviour control (BCSA and BCP) interacts with Deficiency of Skills (DS) to explain risk perceptions. This hypothesis was supported only for behaviour control based on sales activities to relational risk ($\beta_{DSxBCSA}^{rl} = -0.164, p < 0.05$, Fig. 2.1). H1b was supported by the existence of significant interactions between Difficulty in Protecting the Know-How (DPKH) and both dimensions of behaviour control on relational risk perceptions ($\beta_{DPKHxBCSA}^{rl} = -0.134, p < 0.1$, Fig. 2.2; $\beta_{DPKHxBCP}^{rl} = -0.334, p < 0.01$, Fig. 2.3). Moreover, the results show that H1c was supported only for BCSA in the case of relational risk ($\beta_{ENEGxBCSA}^{rl} = -0.187, p < 0.05$, Fig. 2.4) and for both types of behaviour controls in the case of performance risk ($\beta_{ENEGxBCSA}^{prf} = 0.280, p < 0.001$, Fig. 2.5; $\beta_{ENEGxBCP}^{prf} = 0.211, p\text{-value} < 0.1$, Fig. 2.6). In addition to the proposed hypotheses, the results showed a significant interaction effect between DPKH and BCSA on performance risk ($\beta_{DPKHxBCSA}^{prf} = 0.169, p < 0.05$, Fig. 2.7).

The parameters associated with H2a ($\beta_{NSOGxOC}^{rl} = -0.222, p < 0.1$, Fig. 3.1), H2b ($\beta_{EEGxOC}^{rl} = -0.173, p < 0.05$, Fig. 3.2), and H2c ($\beta_{ENEGxOC}^{prf} = 0.216, p < 0.1$, Fig. 3.3) were significant. However, H2b for performance risk and H2c for relational risk were not supported.

Finally, the third group of hypotheses proposes that social control (SC) interacts with any risk source by affecting risk perceptions (see Table 3, Model 4b). This was supported for H3b ($\beta_{DPKHxSC}^{prf} = -0.333, p < 0.05$, Fig. 3.4) and H3e ($\beta_{EEGxSC}^{prf} = 0.224, p < 0.05$, Fig. 3.5).

The negative interactions of risk sources and all types of controls that generate relational risk (see Figs. 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, and 3.4) showed a change in the slope pointing to an inverted U-shape, in which the effect of the risk sources on the perceived relational risk decreases when a specific value of the control is achieved. However, the positive interactions of risk sources and all types of control that generate performance risk (see Figs. 2.5, 2.6, 2.7, 3.3, and 3.5) represent a U-shape, in which low levels of control are associated with a decrease in the effect of risk sources on performance risk perception. However, on achieving

the minimum level of risk perception, the effect changes, and hence, excessive control is associated with an increase in performance risk perception. The supported hypotheses and results are summarised in Table 4.

6. Discussion

The results highlight that the effectiveness of the control type in a franchisor’s risk perception management is contingent upon the risk sources that generate those perceptions, thereby showing a non-linear effect of control and risk sources.

6.1. The direct effect of control on risk perception

Both behaviour control dimensions have been found to directly reduce the franchisor’s relational and performance risk perceptions (Agarwal, 1999; Anderson et al., 2015; Sadeh & Kacker, 2020). In most cases, information on the franchisee’s behaviour decreases the franchisor’s evaluation of business failure probability, albeit due to possible opportunism (relational risk) or other factors (performance risk). Concerning outcome control, our results support Das and Teng (2001) proposition regarding the lack of utility of outcome control in managing relational risk. Finally, social control decreases both relational and performance risks, as stated in previous studies (Das & Teng, 2001; Dekker, 2004; Langfield-Smith, 2008; Şengün & Wasti, 2007). This result indicates that shared values and norms cause franchisors to de-emphasise the potential for franchisee opportunism and business failure (Laguir, Laguir, & Tchameni, 2019)

6.2. The generation of risk perception by risk sources

Our results highlight that a franchisor perceives relational risk due to a franchisee’s deficiency in skills, difficulty in protecting know-how, and low expectations of non-economic gains. Similarly, performance risk is generated by a franchisee’s lack of skill and the franchisor’s expectations of non-economic gains. Surprisingly, the franchisor’s economic gains expectation did not generate risk perceptions, as previous studies have proposed. This lack of direct influence on risk perception in the franchising context may be due to the fact that economic return is considered low risk because they are contractually assured (Antia, Mani, & Wathne, 2017) and the probability of those expectations not being accomplished is relatively low (Safón & Escribá-Estevé, 2011).

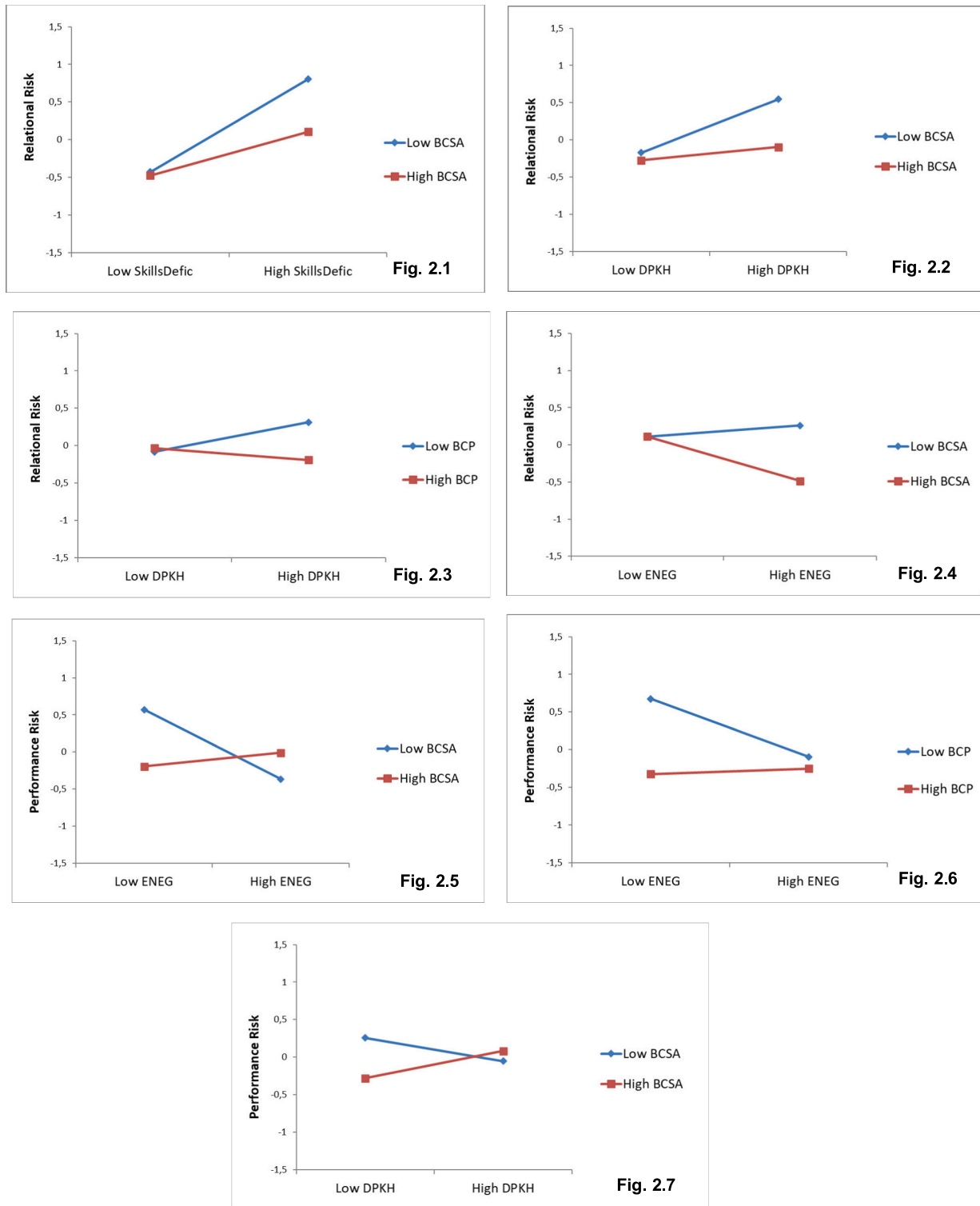


Fig. 2. Significant interactions of behaviour control.

2.1 Behaviour Control of Sales Activities (BCSA) interaction with Skills Deficiency (SD) and Relational Risk perception; Fig. 2.2. Behaviour Control of Sales Activities interaction with Difficulty in Protecting Know-how (DPKH) and Relational Risk Perception; Fig. 2.3. Behaviour Control of Process (BCP) interaction with Difficulty in Protecting Know-how (DPKH) and Relational Risk Perception; Fig. 2.4. Behaviour Control of Sales Activities interaction with Expected Non-Economic Gains (ENEG) and Relational Risk Perception; Fig. 2.5. Behaviour Control of Sales Activities interaction with Expected Non-Economic Gains and Performance Risk Perception; Fig. 2.6. Behaviour Control of Process interaction with Expected Non-Economic Gains and Performance Risk Perception; Fig. 2.7. Behaviour Control of Sales Activities interaction with Difficulty in Protecting Know-how (DPKH) and Performance Risk Perception.

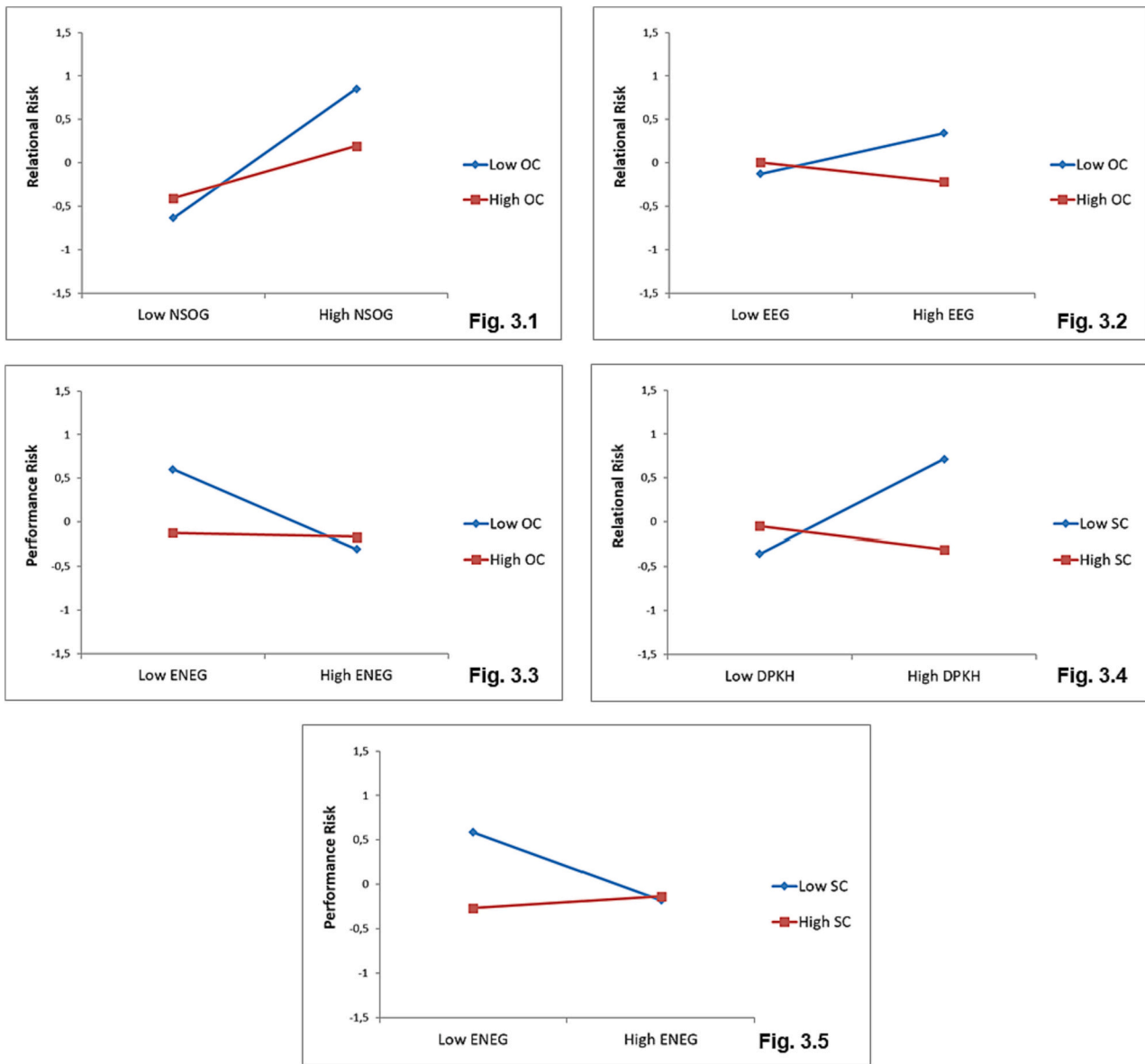


Fig. 3. Significant interactions of outcome and social control.

Fig. 3.1 Outcome Control (OC) interaction with No Satisfaction with Own Gains (NSOG) and Relational Risk Perception; **Fig. 3.2.** Outcome Control (OC) interaction with Expected Economic Gains (EEG) and Relational Risk Perception; **Fig. 3.3.** Outcome Control (OC) interaction with Expected Non-economic Gains (ENEG) and Performance Risk Perception; **Fig. 3.4.** Social Control (SC) interaction with Difficulty in Protecting Know-how (DPKH) and Relational Risk Perception; **Fig. 3.5.** Social Control (SC) interaction with Expected Non-economic Gains (ENEG) and Performance Risk Perception.

The results confirm that expected non-economic gains entails lower performance risk perception. Moreover, this source decreases the franchisor’s relational risk perception, in contrast to previous studies (Nooteboom et al., 1997). This may be because a franchisee from whom potential improvements to the chain are expected can be perceived as trustworthy by the franchisor (Davies et al., 2011) due to the existence of cooperation.

Finally, the control variable of internationality decreases the franchisor’s relational risk perception, although Shane (1996) predicted that it would increase the probability of opportunism. This relationship may exist because international franchises expand overseas when they have strong mechanisms to prevent such opportunism (Ghantous, Das, & Chameroy, 2018). Another control variable, years of franchisor activity, also shows a positive relationship with relational risk. Over time, the franchisees’ dependence on the franchisor decreases while gaining better knowledge of the business; hence, the franchisor may evaluate the probability of the franchisees opportunism as higher (Shane et al.,

2006).

6.3. Behaviour controls interaction with risk sources on risk perception

Behaviour control is divided into two dimensions: one related to sales activities, and the other to the development of procedures. For franchisee’s deficiency of skills, behaviour control focused on sales activities influences the relational risk perception prompted by this risk source. The franchisor’s fear of a low-skilled franchisee’s possible hidden motives for entering the chain can be confirmed or rejected by monitoring their sales activities. If suspicions are confirmed over time, the franchisor can exercise the safeguards provided in the contract. Otherwise, if suspicions are rejected, the franchisor will focus on the most relevant risk sources at each time in the relationship.

In the case of difficulty in protecting know-how, its interaction with both dimensions of behaviour control reduces the franchisor’s relational risk perception as control increases. Information on franchisee sales

Table 4
Summary of the hypotheses.

Hypotheses regarding interaction of Behaviour control				
Hypothesis	Risk Source	Risk Perception	Supported	Figure
H1a	Franchisee's deficiency of skills	Relational	Yes, focus on Sales	2.1
H1a	Franchisee's deficiency of skills	Performance	No	
H1b	Difficulty in protecting K-H	Relational	Yes, both dimensions	2.2 2.3
H1c	Expected Non-Economic gains attainment	Relational	Yes, focus on Sales	2.4
H1c	Expected Non-Economic gains attainment	Performance	Yes, both dimensions	2.5 2.6
Hypotheses regarding interaction of Outcome control				
Hypothesis	Risk Source	Risk Perception	Supported	Figure
H2a	No satisfaction with own gains	Relational	Yes	3.1
H2b	Expected Economic gains attainment	Relational	Yes	3.2
H2b	Expected Economic gains attainment	Performance	No	
H2c	Expected Non-Economic gains attainment	Relational	No	
H2c	Expected Non-Economic gains attainment	Performance	Yes	3.3
Hypotheses regarding interaction of Social control				
Hypothesis	Risk Source	Risk Perception	Supported	Figure
H3a	Franchisee's deficiency of skills	Relational	No	
H3a	Franchisee's deficiency of skills	Performance	No	
H3b	Difficulty of protecting K-H	Relational	Yes	3.4
H3c	No satisfaction with own gains	Relational	No	
H3d	Expected Economic gains attainment	Relational	No	
H3e	Expected Non-Economic gains attainment	Relational	No	
H3e	Expected Non-Economic gains attainment	Performance	Yes	3.5

activities, which are highly relevant to the customer relationship, could provide the franchisor with signals regarding the correct execution of these processes. This information can reduce the franchisor's evaluation of the probability of the franchisee's opportunistic behaviour. Moreover, behaviour control that is focused on processes supplies information on franchisee activities and procedures stated in the franchise's system operating manuals. This information could provide the franchisor with signals regarding the correct execution, reducing the franchisor's evaluation of the probability of opportunistic behaviour (Crosno & Tong, 2018).

Behaviour control related to sales activities interacts with non-economic gains expectations in the generation of relational risk perceptions. In this scenario, information on sales activities may reflect the achievement of expected non-economic gains related to customer attendance and satisfaction. This type of behaviour control informs whether the franchisee is developing such activities correctly, reducing concerns regarding potential opportunism and consequently the relational risk perception.

In the case of performance risk perception generated by these non-economic gains expectations, the results show the influence of both dimensions of behaviour control. Information about the development of

the franchisee's processes, which confirms or rejects concerns about the achievement of potential non-economic improvements, influences the perception of performance risk and orients the direction of the franchisor's decisions. Notwithstanding, when the use of this control type is higher, the performance risk perception increases as opposed to relational risk perception. Thus, a greater amount of information regarding sales activities and franchising processes makes the franchisor more insecure about the possibility of a successful relationship.

Although the effect of difficulty in protecting know-how on performance risk perception has not been theoretically proposed, our results show that this risk source, in conjunction with behaviour control focused on sales, influences said perception. Franchises with hardly imitable know-how are usually related to highly specific processes, products, and/or services with difficult execution, all of which require dedicated support to ensure customer satisfaction. Consequently, in such franchises where the protection of know-how is challenging, having more information about the correct execution of sales activities leads to a higher level of performance risk perception for the franchisor.

6.4. Outcome controls interaction with risk sources on risk perception

In the cases of a franchisor's dissatisfaction with their own gains and expectation of economic gains, outcome controls have been proven to be effective in reducing relational risk perception. In the former, information regarding the franchisee's results and outcomes may confirm or reject the franchisee's opportunistic behaviour. Data about the franchisee's revenues, customer turnover, and new customers can mitigate or increase the franchisor's concern about the probability that the franchisee is opportunistic.

Regarding the expectation of economic gains, although franchisors might not perceive any direct risk from this source because they feel secure regarding fees and royalty payments, outcome control information might either provide more security when expectations are high or confirm situations with low expectations (Combs et al., 2004).

Finally, outcome controls influence the generation of performance risk perception jointly with the expectation of non-economic gains. In this case, information on franchisee results and outcomes may lower the franchisor's evaluation of the probability of failure when expectations of non-economic gains are low because of the favourable outcomes and apparent overall success of the business. Nevertheless, more outcome controls increase performance risk perception when these non-economic gains expectations are high.

6.5. Social controls interaction with risk sources on risk perception management

In social control analysis, this control type interacts with a process risk source, difficulty in protecting know-how, and an outcome risk source, the expectation of non-economic gains. In the context of a high level of difficulty in protecting know-how, control tools that encourage the franchisee's commitment to the chain and its values can reduce the franchisor's evaluation of the probability of franchisee know-how undue appropriation. Regarding the non-economic gains expectations, fostering a franchisee's sense of pride significantly contributes to enhancing the franchisor's perception of control over factors that may hinder the attainment of potential benefits, consequently reducing the perceived performance risk (Yakimova et al., 2019). Nonetheless, as with the use of other kinds of control in the generation of performance risk perception from non-economic gains expectations and the difficulty in protecting know-how, more social control entails higher performance risk perception.

7. Concluding remarks

7.1. Conclusions

This study explored how the joint effect of risk sources and control types influences the franchisor's risk perception. Our results contribute to the stream of research on the effectiveness of control in franchising by showing that franchisor risk perceptions do not determine the effectiveness of the control type by themselves. Instead, it is the combination of risk sources and control types that significantly influences the perception of risk.

Although the differentiation between behaviour, outcome, and social controls has been found to be relevant in the assessment of the more suitable control type for risk perception management with different risk sources, our results revealed that high levels of control in high-risk sources situations do not always entail a reduction in risk perception. When the use of control is high and the level of risk sources increases, relational risk perception decreases but performance risk perception increases. Therefore, consideration of both the risk sources and control types is also relevant to risk perception management as it plays a major role in decision-making in the franchisor-franchisee relationship.

7.2. Theoretical implications

The inclusion of risk sources revealed that regardless of the control type, when the risk sources that generate the franchisor's relational risk perceptions are higher, a threshold of control exists at which greater use of any control type reduces the perception of relational risk. Hence, in high-risk sources contexts, the control leads the franchisor to perceive lower opportunism, signalling the existence of a franchisee's cooperation in risky settings (Yakimova et al., 2021). This finding questions the franchisee non-cooperation assumption suggested in the literature (Dahlstrom & Nygaard, 1999; Jambulingam & Nevin, 1999), which affects the franchisor's transaction costs analysis and decision-making. The non-cooperation assumption leads the franchisor to believe that higher control motivates the franchisee to trigger their investigation to avoid their awareness of the franchisee's defective outcomes and behaviours (Baiman & Demski, 1980). Transaction costs such as monitoring, bargaining, and maladaptation (Dahlstrom & Nygaard, 1999) become less pertinent when opportunistic behaviours are absent. Our findings suggest that in high-risk contexts the franchisor's decision analysis should consider an assumption of cooperation which may simplify their utility function when franchisors evaluate the control effectiveness.

Furthermore, the consideration of the franchise as a cooperative form of governance (Weaven, Grace, Dant, & Brown, 2014; Yakimova et al., 2021) explains how the franchisor's perception of opportunism is reduced in high-risk contexts, leading to greater efficiency of this kind of contractual relationship (Jambulingam & Nevin, 1999) when control systems are used. Consequently, franchising represents a cooperative system characterised by participative communication among partners and timely information sharing. Therefore, the franchise should be considered better than a mere tool to shed risk (Martin, 1988), a way of inter-organisational cooperation in which control serves as a participative tool to solve problems.

This study elaborates the relevance of considering franchisor risk perceptions and social controls besides TCE principles, thus moving beyond the excessively economic view derived from their exclusive use (Cyr, Le Breton-Miller, & Miller, 2023). The consideration of risk perceptions has led to conclude that in franchise settings, the opportunism principle is pragmatically moderated, highlighting how franchisors primarily regard franchisees as cooperative partners in high-risk situations. This approach aligns with the work of TCE scholars, who have shifted their focus towards the behavioural aspects, thereby broadening the scope of this theory (Cuypers et al., 2021; Verbieren et al., 2008; Williamson & Ghani, 2012).

In relation to the franchisor's perception of performance risk, our findings on the effectiveness of control system yielded an unexpected conclusion. Previous literature proposed that the effectiveness of a control system should entail risk perception reduction to avoid paralysis due to excessive fear of potential problems. However, in situations with high-risk sources that affect performance risk, our results show a control threshold at which greater use of control increases the intensity of the relationship between these sources and the perception of performance risk, thereby increasing this type of risk. Therefore, in risky contexts in which greater use of control leads to the franchisor feeling confident about the franchisee's lack of opportunism, their concerns about the possibility of relationship failure increase. This finding can be explained by differentiating risk perception and uncertainty. Risk perception is related to the likelihood of something going wrong, whereas uncertainty is associated with the indetermination or doubt about a situation or the course of action (Froud, 2003). Increased use of control may alleviate the franchisor's uncertainty and doubts about a situation. However, this reduction does not always result in a lower risk perception for the franchisor. Control information may indeed confirm the vulnerability, and, in some cases, the franchisor's perception of performance risk may not decrease but even increase. If the primary objective of the control system does not need to be risk perception reduction, this may not necessarily indicate inefficiency in the control system. Thus, it is important to evaluate risky situations carefully; otherwise, inadequate control information can potentially misguide the franchisor's decision-making process.

Finally, our results complement those of Tong and Crosno (2021) by extending their analysis of control effectiveness from the perspective of the franchisee to the franchisor, showing that control ensure proper management of risk perception from the franchisor's point of view, and incorporating the measurement of risk perceptions into the assessment of control effectiveness. While Tong and Crosno (2021) identified trends related to different control types among franchisees, our research highlights patterns for franchisors with respect to the type of perceived risk.

7.3. Managerial implications

For managers, this study shows that the efficiency of the franchisor's control system in managing the franchisor-franchisee relationship depends on their knowledge of the relationship's risk sources and the level of control employed. Based on these findings, we propose three managerial implications.

First, the efficiency of the franchisor's use of the control system may be contingent upon the knowledge of the risk sources of such relationships. Consequently, it would be convenient for the franchisor to build a franchisee's 'risk profile' that contextualises each franchisee's relationship by identifying and assessing specific risk sources. With these profiles, the franchisor may differentiate high- and low-risk profile franchisees and pay greater attention to high-risk franchisees. The risk sources more relevant to each relationship orient the franchisor in their use of the control system by focusing on the control types that could supply suitable information to manage that risky situation.

Second, as the contract does not protect the franchisor from all possible threats in their relationships, our results confirm that they should rely on control information regarding the franchisee's behaviours and outcomes in addition to a strong system of values to manage these unexpected situations. Therefore, a control system enables the franchisor to prevent potential adverse consequences derived from unexpected situations that emerge in the relationship. In this line, the franchisee's sense of pride in the franchise and their acquisition of franchise values that shape social control prevent retrenchment in the progress of the relationship.

Finally, our results are relevant to entrepreneurs who face decisions regarding growth by franchised units or other inter-organisational relationships. Our study highlights that in high-risk situations, high

control reduces the franchisor's fear of the franchisee's potential opportunism, pointing to the franchisee's cooperation in these risky environments. In this context, the franchisor perceives the franchisees as also interested in the well-being of the business and the relationship, and can focus on using the control system for risk performance management. This evidence positions the franchise as an efficient form of governance in risky contexts compared to other types of organisational relationships, since the costs of opportunism management are expected to be lower.

7.4. Limitations and further research

This study is subject to certain limitations. The first limitation is a consequence of focusing on one type of inter-organisational relationship, with its idiosyncratic characteristics and governance mechanisms, which may have influenced our results. The cooperative viewpoint proposed in this study, considering the relational risk perception reduction in high-risk context, should be tested in another non-equity relationship, as well as in equity relationships, to analyse how the partners' degree of independence and their coordination mechanisms may influence the other partners' cooperation evaluation. Similarly, the increasing effect of control systems on performance risk perception in high-risk source situations might be confirmed in relationships closer to hierarchies, where the parts are formally linked, or to markets, with independent control systems to face risk sources.

Another limitation of our study is its focus on franchises once they are established, where the control system designed for the entire chain does not allow observation on the changes to provide an answer to the existence of risk sources. Consequently, when control systems are designed, it is impossible to observe the role of control systems in risk perception management. In this respect, an interesting direction would be the analysis of franchises in their design phase, before chain formation, and the observation of the control types that can be chosen by the franchisor when predicting the risk sources in future relationships with franchisees.

Methodologically, the complexity of the proposed model enabled us to design a questionnaire while considering the time required to complete the survey, number of concepts under analysis, and current possibilities of analysing non-linear relationships with SEM. Consequently, the selected scales presented only a few items, and the number of factors that interacted in the same analysis had to be reduced by dividing the proposed model into parts. Future investigation should overcome the current computational problems to test complex models with non-linear effects.

Finally, additional concepts could also play a major role in understanding the control-risk perception relationship. The inclusion of trust as an influential factor (Yang, Zhou, & Jiang, 2011) could shed light on the franchisor-franchisee relationship. Trust is especially interesting from the franchisee's perspective, in which a positive view of the franchisor's control arises because of its beneficial effect on the franchisee's activity (Crosno & Tong, 2018; Gillis et al., 2020). Hence, future analysis could consider how trust and cooperation affect control design by considering both sides of a relationship, that of the franchisor and franchisee, to analyse differences and similarities.

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Data availability

Data will be made available on request.

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