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Abstract

Purpose – Although interorganizational relationships are acknowledged as positive for tourism, studies on the subject fail to systematically analyze the joint effects of relationships with different types of organizations. The purpose of this paper is to analyze the influence of the interaction between different types of interorganizational relationships over hotel firm's performance.

Design/methodology/approach – Structured questionnaire applied to hotel managers was used to assess hotel relationships. Hotel performance was assessed through Trip Advisor information. Structural Equations Modelling (SEM) was used for data analysis.

Findings – Results reveal that only relationships with other hotels had a significant influence on performance. Competition had a negative effect on hotel performance, as well as on horizontal and support organization relationships. Relationships with support organizations presented a significant effect on the formation of relationships between companies (horizontal and vertical) and mediated the negative effect of competition over horizontal relations.

Originality/value – The paper systematically analyses the influence of different interorganizational relationships and competition on hotel performance. Empirical results contradict some aspects of networks and clusters. Some relationships may have positive effects on destinations, but not on hotel firms. Additionally, support organizations play a central role on interfirm relationship formation and maintenance.

Practical Implications – Hotel relationships are idiosyncratic and path-dependent, hence monitoring and copying competitors' relationships is not advisable. Hotels may improve their productive integration by relating with support organizations. From a destination management perspective, results show that support organizations facilitate interfirm relationships and productive integration within a destination.

Keywords: interorganizational relationships, competition, clusters, tourism.

集群或网络：组织间关系对巴西酒店绩效的影响

抽象

目的–尽管人们公认组织间关系对旅游业是积极的，但有关该主题的研究未能系统地分析与不同类型组织之间关系的联合影响。本文的目的是分析不同类型的组织间关系之间的相互作用对酒店公司绩效的影响。

设计/方法/方法–应用于酒店经理的结构化问卷用于评估酒店关系。通过Trip Advisor信息评估了酒店的表现。使用结构方程建模 进行数据分析。

调查结果–结果显示，只有与其他酒店的关系才对业绩产生重大影响。竞争对酒店业绩以及横向e支持组织的关系都具有负面影响。与支持组织的关系对公司间关系有显着影响，对竞争的中介作用对水平关系有负面影响。

原创性/价值–本文系统地分析了不同组织间关系和竞争对酒店绩效的影响。实证结果与网络和集群的某些方面相矛盾。某些关系可能对目的地有利，但对酒店公司却没有相同的影响。此外，支持组织在公司间关系的形成和维护中起着核心作用。

实际意义–酒店关系是特殊的并且与路径有关，因此建议不要监视和复制竞争对手的关系。酒店可以改善与支持组织有关的生产整合。从目的地管理的角度来看，结果表明，支持组织促进了旅游企业之间的关系以及目的地内的生产整合。

关键字：组织间关系，竞争，集群，旅游业。

Clústeres o redes: la influencia de las relaciones interorganizacionales sobre el desempeño hotelero en Brasil

Resumen

Propósito - Si bien las relaciones interorganizacionales se reconocen como positivas para el turismo, las investigaciones sobre el tema no logran analizar sistemáticamente los efectos conjuntos de las relaciones con diferentes tipos de organizaciones. El propósito de este artículo es analizar la influencia de la interacción entre diferentes tipos de relaciones interorganizacionales sobre el desempeño de la empresa hotelera.

Diseño/metodología/enfoque: se utilizó un cuestionario estructurado aplicado a los gerentes de hoteles para evaluar las relaciones con los hoteles. El desempeño del hotel se evaluó a través de la información de Trip Advisor. Se utilizó el Modelado de Ecuaciones Estructurales (SEM) para el análisis de datos.

Hallazgos: los resultados revelan que solo las relaciones con otros hoteles tuvieron una influencia significativa en el rendimiento. La competencia tuvo un efecto negativo en el desempeño del hotel, así como en las relaciones horizontales de las organizaciones de apoyo electrónico. Las relaciones con las organizaciones de apoyo tienen un efecto significativo en las relaciones entre empresas y un efecto de mediación en la competencia, influencia negativa en las relaciones horizontales.

Originalidad/valor: el documento analiza sistemáticamente la influencia de las diferentes relaciones interorganizacionales y la competencia en el desempeño del hotel. Los resultados empíricos contradicen algunos aspectos de redes y clústeres. Algunas relaciones pueden ser positivas para los destinos, pero no tener los mismos efectos para las empresas hoteleras. Además, las organizaciones de apoyo juegan un papel central en la formación y el mantenimiento de relaciones entre empresas.

Implicaciones prácticas - las relaciones hoteleras son idiosincrásicas y dependen de la ruta, por lo que no es aconsejable monitorear y copiar las relaciones de la competencia. Los hoteles pueden mejorar su integración productiva relacionándose con las organizaciones de apoyo. Desde una perspectiva de gestión de destinos, los resultados muestran que las organizaciones

de apoyo facilitan las relaciones entre empresas del turismo y la integración productiva dentro de un destino.
Palabras clave: relaciones interorganizacionales, competencia, clústeres, turismo.

Introduction

Relationships are important for firm performance (Dyer and Singh, 1998). This perspective is particularly relevant for tourism, since it is an activity that is dependent on interorganizational relationships for its development (Zemla, 2014; Denicolai et al., 2016). Tourism organization takes place from the clustering of mostly small firms that participate in different economic activities and offer complementary products and services (Peters and Buhalis, 2004). The presence of many small firms dependent on interorganizational relationships provides an opportunity for interorganizational relationships study.

Consideration of the diverse types of organizations involved in tourism, with whom a firm must relate, is relevant to strategy formation (Brás et al., 2010; Mwesiumo and Halpern, 2017). Tourism research usually describes interorganizational relationships as positive for firms and destinations (Volgger and Pechlaner, 2015; Denicolai, et al., 2016), but few studies are dedicated to identifying which relationships effectively matter for firm performance (Mwesiumo and Halpern, 2017). Although there are studies that address the results of specific relationships for firm performance, these fail to systematically analyze the joint effects of relationships with different types of organizations (Fyall et al., 2012; Raposo et al., 2014). There are no studies that analyze how these different relationships interact and influence hotel performance. Research on cooperation between tourism firms has been limited (Maggioni et al., 2014).

A second research gap is the influence of competition. Tourism literature suggests that firms in tourist destinations should cooperate and compete to achieve better performance, but few empirical evidences have been presented to support this perspective (Zee and Vanneste, 2015). Research on interorganizational relationships usually offers two types of descriptions: either the companies establish cooperative relationships in order to develop shared competitive advantages or they establish competitive relationships to overcome their competitors (Bengtsson and Kock, 2014). This dichotomization finds no support in the seminal works on networks or clusters (Brusco, 1993; Thorelli, 1986; Powell, 1990).

Interfirm relationships involve elements of cooperation and competition (Della Corte and Aria, 2016; Chim-Miki and Batista-Canino, 2017). Despite the concurrent occurrence of

competitive and cooperative behaviors, emphasis on cooperation tends to neglect or ignore the influence of competition on interfirm relationships (Wu, 2014). Considering the arguments presented, this research aims to analyze the influence of the interaction between different types of interorganizational relationships over a hotel firm's performance.

2. Theoretical Framework

Earlier research on tourism firms indicates that cooperation is not a recurring behaviour among companies in the sector (Peters and Buhalis, 2004; Volgger and Pechlaner, 2015). So, the present study will focus on the relationships established by hotels from a dyadic perspective. Hotel relationships were classified according to the positioning in the tourism productive chain into three groups: (i) verticals - between companies that operate in different stages of the productive chain; (ii) horizontals - when the companies act in the same stage of the productive chain, and (iii) support organizations - relationships with organizations positioned outside the productive chain that provide services for firms.

The formation of vertical and horizontal relationships are explained by access to resources or the combination of complementary resources (Casanueva et al., 2015); the optimization of the productive process through the reduction of uncertainty and costs of transactions (Thorelli, 1986), enhanced production flexibility, environment adaptation and information access (Miles and Snow, 1986; Hoffmann et al., 2014); and learning, economies of scale and scope and innovation (Labben and Mungall, 2007; Verschoore et al., 2016). Tourism literature usually considers interorganizational relations as desirable for both firm and destination performance (Volgger and Pechlaner, 2015; Denicolai, et al., 2016; Mwesiumo and Halpern, 2017; Silva et al., 2020).

Vertical Relationships relates to coordination, production integration and product complementarity and is described as an effective way for small firms to compete (Miles and Snow, 1986; Hoffmann et al., 2014). The tourist product develops from a series of interdependent and integrated economic agents (Zee and Vanneste, 2015; Volgger and Pechlaner, 2015; Czernek and Czaron, 2016, Carvalho et al., 2020). Establishing relationships with complementary firms both upstream and downstream in the productive chain is key to overcoming the fragmentation of tourism industry (Maggioni et al., 2014) and to improving firm performance (Peters and Buhalis, 2004; Brás et al., 2010; Carvalho et al., 2020). Thereby:

H1: Vertical relationships are positively related to hotel performance.

Companies at the same stage of the productive chain share similarities in their production methods, market, competitive pressures, and organizational challenges. Horizontal relationships constitute an effective alternative for solving shared problems (Verschoore et al., 2016). Horizontal relationships are important for the development of the firm since they represent an opportunity for information exchange and learning (Gimeno, 2016). Previous studies indicate that horizontal relationships have positive results on innovation (Wu, 2014), capabilities development (Carvalho et al., 2020) and firm performance (Labben and Mungall, 2007; Park et al., 2014), especially for small and medium sized firms (Raposo et al., 2014; Verschoore et al., 2016), as those in tourism economy. Cooperation between companies at the same stage of the productive chain in tourism is determinant in the firm's performance (Maggioni et al., 2014). Thus, it is postulated that:

H2: Horizontal relationships are positively related to hotel performance.

Tourism is a naturally clustered economic activity (Czakon, 2018). The colocation of companies of the same economic activity favors the emergence of support organizations that assist local companies providing services such as: information on new products and markets, training and provision of skilled labour, technological services, facilitation of access to finance, and knowledge dissemination (Brusco,1993; Molina-Morales et al., 2013; Hoffmann et al., 2014). These services can be characterized as access resources (Barney, 1991) and sources of competitive advantages for clustered companies vis-à-vis companies from outside the cluster (Casanueva et al., 2015; Prim et al., 2016).

Although the services provided by support organizations are available to all clustered firms, effective access to these services is distinct because of the differences in the firms' capacities (Casanueva et al., 2015; Gnyawali, and Charleton, 2018). The access and appropriation of resources from support organizations are heterogeneous and the establishment of relations with these organizations can explain the differences in hotel performance.

H3: Relationships with support organizations are positively related to hotel performance.

Support organizations also provide an appropriate institutional environment for firms ensuring the necessary conditions for relationship formation (Brusco, 1993; Felzensztein, et al.,

2019). Support organizations assist with the coordination of clustered firms, facilitating information exchange and strengthening trust (Czakon, 2018; Felzenszteinet al., 2019). Destination Management Organizations are usually described as coordinators and providers of the collaborative structures for the various components of a destination (Brás et al., 2010; Fyall et al., 2012; Volgger and Pechlaner 2015; Beritelli et al., 2015). Therefore:

H4.1: Relationships with support organizations are positively related to vertical relationships; and

H4.2: Relationships with support organizations are positively related to horizontal relationships.

Besides cooperative relationships, some level of competition is also expected between tourism destination firms (Della Corte and Aria, 2016; Chim-Miki and Batista-Canino, 2017; Carvalho et al., 2020). Hotel competitive environment is usually described as fierce due to relatively low market share among firms, high operating costs, simultaneous production and consumption, locational rigidity, concentrated markets, and high entry and exit barriers (Köseoglu et al., 2019; Lin and Kim, 2020).

Competition influences firm performance. Structure-Conduct-Performance arguments indicate that the competition between firms reduces their financial performance (Akehurst, 1984; Porter, 1998). Similar results indicate that increasing competition may result in losses of market share and occupancies (Kwock and Tse, 2002) or even affect the firm's survival (Lin and Kin, 2020). Coopetition, a latter perspective, argues that simultaneous cooperation and competition engender better results (Della Corte and Aria, 2016; Chim-Miki and Batista-Canino, 2017; Czakon, 2018). Despite the lack of consensus in the theory, a strategy management perspective is assumed, thus:

H5: Competition is negatively related to hotel performance.

Competition also influences interorganizational relationships. Cooperation and competition are usually described as having opposing logics of joint value generation and individual value appropriation (Park et al., 2014; Gnyawali, and Charleton, 2018). Some network studies indicate that competition harms horizontal relations (Bengtsson and Kock, 2014; Wu, 2014; Verschoore et al., 2016). Intense competition raises the risk of opportunistic

behaviours and inhibits cooperative relationships between competing firms (Park et al., 2014). Therefore:

H6: Competition is negatively related to horizontal relationships.

Firms at a situation of competitive disadvantage strive to close the gap through the emulation of competing firms' well-executed strategies (Barney, 1991). Concerning interorganizational relations, Gimeno (2016) suggests that firms respond to competitors´ successful alliances in two ways: (i) trying to establish an alliance with the same partner; or (ii) forming equivalent alliances with similar companies. Gnyawali, and Charleton (2018) evidence that firms copy the cooperative behaviour of competitors with superior performance. The same seems to be true for the hotel industry, since hotels monitor and gather information on immediate market competitors' resources and strategies for improving their own strategy (Kwock and Tse, 2002; Köseoglu et al., 2019). Therefore:

H7.1: Competition is positively related to vertical relationships.

H.7.2: Competition is positively related to relationships with support organizations.

Figure 1 summarizes the research hypotheses and provides the theoretical model for systematically analysing the joint effects of different relationships and competition on hotel performance.

Exhibit Figure 1 here.

3. Method

This study examines hotel firms from four Brazilian tourist destinations: Itatiaia; Bonito; Tiradentes; and Gramado. These are eco-leisure destinations with consolidated position in the Brazilian domestic market. These destinations are small towns in which tourism plays an important role for local economies, especially in terms of employment (see Table 1). The hotel sector of the four destinations is characterized by a majority presence of small and medium-sized companies and the absence of large hotel chains.

Exhibit Table 1 here.

The analysed data are from primary and secondary sources. Primary data was collected using a 2-part structured questionnaire. The first section aimed to identify the number of rooms and average daily rate of the standard room. The second section focused on identifying the importance of the relationship with different types of organizations for the respondent firm. The questionnaire listed 20 organizations usually present in tourism destinations and asked the respondent to evaluate the relevance of the relationship with the organization on a seven-point scale, from 1 (no importance) to 7 (extremely important).

The instrument was submitted researchers whose studies involve tourism, networks and interorganizational relationships for construct face validation. The instrument was also submitted for validation by professionals in the tourism sector to check if the listed organizations adequately covered the organizations present in the tourist destinations. Before application, the instrument was also the subject of a pilot survey with hotels from a similar tourist destination. Data collection occurred between July and November of 2017. The questionnaire was applied in-person to hotel managers from visits to the establishments.

The resulting sample consists of 261 hotels (Table 2). The proposed model is composed of four factors, initially measured by 27 manifest variables. Following the thresholds suggested by Hair Jr. et al. (2010) and Marôco (2014), the initial N needed to test the model would be approximately 200 cases, so the resulting sample is sufficient.

Exhibit Table 2 here.

Hotel performance was measured with secondary data collected from the TripAdvisor website. For each hotel, the number of reviews and the number of top reviews posted on the website in a one-year period were collected. Previous research showed that both the number of reviews and their valence are positively associated with hotel occupancy, RevPAR, bookings and financial returns (Blal and Sturman, 2014; Viglia et al., 2016; Phillips et al. 2017; Anagnostopoulou et al., 2020; Martin-Fuentes et al., 2020), so we assume this information as indicators of hotel performance.

Performance is a multidimensional construct, thus we created three performance indicators to better comprise the construct´s complexity. The first one considers the number of reviews in a one-year period. We assume that hotels with more reviews receive more guests

than hotels with fewer reviews so that the number of reviews is a proxy for the number of guests received. The second is the ratio between the number of evaluations in a one-year period and the number of rooms. This indicator brings information about the hotel's production (in terms of guests) and its main productive factor (rooms), assessing hotel productivity. The last one is the number of top reviews in a one-year period per total reviews received in a one-year period. It measures the valence of the reviews and indicates the level of guest satisfaction.

There is competition when there is a dispute between companies that act in the same economic sector and commercialize similar products to attend to a particular market niche (Bengtsson and Kock, 2014). Although hotels offer similar services, they vary in terms of quality and target audience. Competition will be more intense as services offered overlap in terms of quality and customers; hence, price was used as an indicator of differences in service quality and consumer profile (Sainaghi, 2010). Therefore, for each destination, a cluster analysis was conducted to group enterprises in terms of their standard room daily rate.

The competition was measured through market concentration. Less concentrated markets imply intense competition while highly concentrated markets denote low competition (Lado-Sestayo et al., 2016; Lin and Kim, 2020). For each cluster created, a concentration grade was determined by Herfindahl-Hirschman Index (HHI), considering the quantity of rooms offered, following Akehurst's (1984) recommendations. The closer to zero the HHI index, the lower the market concentration and the greater the competition (Lado-Sestayo et al., 2016). So, the inverse of the HHI index was used as competition measure. Constructs and measures are presented in Table 3.

Exhibit Table 3 here.

Structural equations modelling (SEM) was used as analysis technique. SEM enables the simultaneous examination of a series of interrelated relationships among latent constructs, such as those proposed by the research hypotheses. Maximum likelihood was used for parameters estimation. The fit of measurement and structural models were evaluated using the indicators GFI, CFI, PCFI, PGFI, and X^2/df, according to the thresholds stablished by Hair et al. (2010) and Marôco (2014).

4. Results

Measurement model was validated through the Confirmatory Factor Analysis. Variables with low factor loadings or cross-loadings were deleted and covariance trajectories were created between the errors of the variables. After the adjustments, the measurement model presented a good fit (Table 4).

Exhibit Table 4 here.

Afterwards, the feasibility and confidence of the constructs (Table 5) were verified. Except for the variable "Q12. Hotels and Inns" (maintained due to its relevance to the construct) all variables presented over 0.5 factor loadings, indicating individual reliability (Marôco, 2014). The results indicate that all constructs present factor convergence values above the cut-off value (0.7), indicating composite reliability. The convergence validity was evaluated through the average variance extracted (AVE). Except for Horizontal Relationships, with values slightly under the cut-off value (0.5), all constructs presented adequate values indicating the presence of convergence validity. The square root of AVE for each construct should be higher than the correlations with any other constructs for discriminant validity. The results indicate that horizontal relationships and the relationships with support organizations do not have discriminant validity. This result, as well as the individual reliability of the variable "Q12. Hotels and Inns" are limitations of this study.

Exhibit Table 5 here.

Considering the high correlation between constructs over the interorganizational relationships, a preliminary model (Model 1) without hypotheses H4.1 and H4.2 was tested. The preliminary Model presented a poor fit (Table 3) and its results are presented in Table 6. Hypotheses H1, H3, and H7.1 had no significant effects ($p<0.1$) and were, therefore, rejected.

Exhibit Table 6 here.

After dropping the non-significant trajectories and including the trajectories proposed by H4.1 and H4.2, a second model (Final Model) was tested. the final model presented better

fit values than preliminary model (Table 3). Table 7 presents structural analysis results, while Figure 2 shows the final model.

Exhibit Table 7 here.

Exhibit Figure 2 here.

The analysis indicated that the inclusion of the path between Support Organization Relationship and Horizontal Relations led to the non-significance of competition on Horizontal Relationship, suggesting a possible mediation effect. The Sobel test was used to check the mediation effect. The significant result ($p<0.05$) confirmed that Support Organizations Relationship mediated the negative effect of Competition on Horizontal Relationships.

5. Discussion and conclusions

SEM results indicate that vertical relationships had no significant influence on firm performance, rejecting H1. Unlike industrial activities (Dyer and Singh, 1998), tourism economy is highly fragmented (Maggioni et al., 2014) such that its different services may be commercialized in various non-exclusive combinations. Although productive integration may be positive for a destination or even inherent to tourism organization, it does not follow that hotels will have the same results from vertical relationships. Though innate to the business, the complementarity of the tourism product (Maggioni et al., 2014; Czernek and Czaron, 2016) is not a sufficient condition for improving hotel performance.

Support Organizations Relationships also had no significant effect on firm performance, rejecting H3. Support organizations are described as service providers for firms within a cluster (Molina-Morales et al., 2013; Prim et al., 2016). Hotels in the same destination access and use these resources in different ways, according to their needs and capabilities (Casanueva et al., 2015), resulting in performance differences. This perspective is not corroborated by the present study. Clustered firms may experience decreases on value creation from relationships due to redundancy of the resources accessed (Molina-Morales and Martinez-Fernandez, 2009). In the long run, support organizations can start offering services that are convenient to them, rather than what is actually necessary for firms (Hoffmann et al., 2014).

Horizontal Relationships did present a significant influence on firm performance (H2), corroborating previous studies (Labben and Mungall, 2007; Maggioni et al., 2014). Horizontal relationships are generally described as more complex because of the difficulty in verifying possible joint action synergies and overlap of market niches (Bengtsson and Kock, 2014; Gnyawali, and Charleton, 2018). The results (H2 corroborated, and H1 and H3 rejected) contradict the highlighted complexity logic.

Tourism industry is mostly composed of small firms (Maggioni et al., 2014) that eventually will not be able to bear the costs associated with relationship development (Gnyawali, and Charleton, 2018). Relating with similar companies, that share the same competitive pressures and have similar problems is less costly (Verschoore et al., 2016), facilitating communication, exchange and access to resources and improving firm performance.

Competition had a negative and significant influence on firm performance (H5), confirming previous studies (Akehurst, 1984; Lado-Sestayo et al., 2016). Competition had a negative and significant effect on horizontal relationships (H6), confirming that competition harms cooperation amongst hotels. Hypothesis 5 and 6 results do not confirm that simultaneous cooperation and competition engender better results (Della Corte and Aria, 2016; Chim-Miki and Batista-Canino, 2017).

Competition does not exert a significant influence on Vertical Relationships and have a negative influence on Support Organizations Relationships, rejecting H7.1 and H7.2. Being subject to a highly competitive environment does not seem to stimulate hotels to monitor and emulate competitor´s relationships (Kwock and Tse, 2002; Köseoglu et al., 2019). Interorganizational relations are socially complex, path-dependent and in some extent idiosyncratic to the firms involved, making them hard to imitate (Barney, 1991), especially for small and medium-sized firms with fewer resources to stimulate strategic relationships formation beyond simple market relations (Casanueva et al., 2015).

Negative influence of competition on Support Organizations Relationships is explained by the role of these organizations as promoters of the conditions for operation and development of clusters or networks (Czakon, 2018; Felzensztein et al., 2019). Several studies describe tourism support organizations as destination managers and promoters of productive integration (Zee and Vanneste, 2015; Czernek and Czaron, 2016; Czakon, 2018). Fierce competition amongst hotels within a destination harms support organization´s capability to coordinate firms and integrate tourism production. Just like network management should control internal

competition to foster cooperation and improve results (Verschoore et al., 2016), support organizations must ensure that internal competition does not affect destination productive integration.

Although interorganizational relationships are important for tourism firms (Zemla, 2014; Denicolai, et al., 2016), identifying potential partners and establishing strategical relationships is complex, especially when cooperation costs are high and results are uncertain (Powell, 1990; Mwesiumo and Halpern, 2017). Interfirm cooperation is not granted (Peters and Buhalis, 2004; Volgger and Pechlaner, 2015). The positive influence of Support Organizations Relationship on Vertical and Horizontal Relationships (H4.1 and H4.2) as well as the mediation effect on Competition negative influence on Horizontal Relationships corroborate support organizations' role as drivers of destination productive integration by establishing the environment for relationships between tourism firms (Denicolai et al., 2016; Czernek and Czaron, 2016; Czakon, 2018).

5.1 Theoretical implications

Tourism usually borrow concepts and theories from other disciplines (Mwesiumo and Halpen, 2017). Our results contribute for tourism, but also for network and cluster research. The resulting Model (Figure 1) indicates that for the small and medium-sized firms analyzed, relationships differ from networks and clusters. There was no evidence of better performance from vertical relationship (H1) or from the services of support organizations (H3) as expected in networks or clusters literature. Differently, horizontal relationships showed positive and significant influence on the firm´s performance, thus confirming H2.

Colocation and product complementarity make interfirm relations natural for tourism, but the results may vary according to the analysis level. Productive integration is beneficial for the destination's performance (Volgger and Pechlaner, 201; Mwesiumo and Halpern, 2017), but it does not seem to have the same effect for hotels. Small and medium-sized hotels may rather search for solutions of shared problems than integrate their production while developing interorganizational relationships.

Tourism support organizations play a different role than their counterparts in industrial clusters. Support organizations act as integrating agents within a destination, facilitating interfirm relationships and diminishing detrimental effects of competition on horizontal relationships. The provision of services is secondary to the coordination and integration of

tourism firms. The results reinforce support organizations as moderating actors in tourism networks (Brás et al., 2010; Volgger and Pechlaner 2015; Beritelli et al., 2015).

The redundancy and reiteration of social relationships within a cluster improve trust, reduce transaction costs and facilitate relationships (Molina-Morales et al., 2013; Felzensztein et al., 2019; Silva, Hoffmann and Costa, 2020). Trust acts as a substitute to contracts or hierarchical integration on productive process organization (Thorelli, 1986; Silva et al., 2020). The results indicate that support organizations also facilitate interfirm relationships, acting as a substitute for trust. Both trust and support organizations demand high costs for development and implementation, understood as being mutually exclusive. Support organizations carrying out productive integration between firms may indicate insufficient levels of trust between tourism firms. Being a clustered economic activity does not necessarily result in the formation of trust-based relationships. These results provide an alternative explanation for the formation interfirm relationships in tourist destinations.

Competition has a detrimental effect on both firm performance and horizontal relationships. The arguments that simultaneous cooperation and competition engender better results for tourism firms (Della Corte and Aria, 2016; Chim-Miki and Batista-Canino, 2017; Carvalho et al., 2020) were not verified. As a contribution, coopetition may be positive for the destination, but when observed from the firm´s perspective, it does not seem to present the same results.

5.2 Practical implications

This research provides practical implications for destinations and hotel firms management. Individually, for specific types of firms, vertical relationships can be relevant, but when analyzed quantitatively in a sample of firms, these relevance does not seem to manifest. From the hotel firm standpoint, the emulation of competitor´s relationships do not seem to be a feasible strategy. Strategic relationships are idiosyncratic and path-dependent to the firms involved (Barney, 1991; Prim et al., 2016; Verschoore et al., 2016). There is no guarantee that it will be possible to effectively identify and replicate the conditions that results in superior performance. Competitive intelligence practices of monitoring and copying competitors' resources and strategies (Köseoglu et al., 2019) seem to have a questionable application for hotels relationships.

Developing dyadic relations with other firms may be difficult for small firms (Park et al., 2014; Wu, 2014; Gnyawali, and Charleton, 2018). Results suggest that relationships with support organizations may facilitate the development of relationships with hotels and other tourism firms within a destination, so that hotels may improve their productive integration in a destination through the relationships with support organizations.

From a destination management standpoint, research outcomes point out support organizations contribution for building a favorable environment for interfirm relationships and destination productive integration. Support organizations should also monitor and curb the negative effects of competition on destination productive integration.

5.3 Limitations and future Research

As data collection was not random, population inference is not advisable. There was an occurrence of local bad fit in the horizontal relationships factor in addition to the absence of discriminant validity between two factors. Future research might need to improve the questionnaire to better assess horizontal relationships. Considering these main limitations, the final model must be understood according to the sample analysed. As a suggestion, future research should test the proposed model in different contexts to verify whether the relationships found are specific to the analysed destinations. Another limitation is the overarching assessments of relationships to categories of businesses. They are simple measurements of inter-organizational relationships. An interesting approach would be to deepen the characteristics of relationships to understand how they develop and interact over time.

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Figure 1 – Theoretical Model

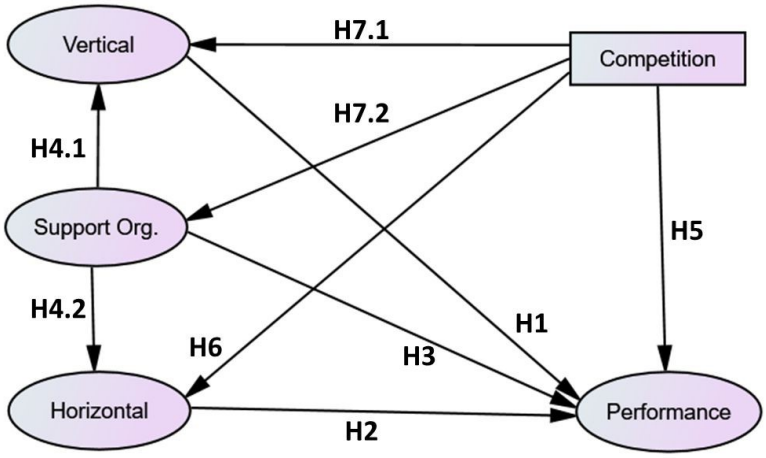

Table 1: Tourism participation in the Destination economy

Destination	Firms			Jobs		
	Tourism*	Total	%	Tourism*	Total	%
Gramado	817	4554	17.94%	1586	6534	24.27%
Bonito	428	1800	23.78%	6209	17026	36.47%
Tiradentes	241	699	34.48%	825	1687	48.90%
Itatiaia	375	1373	27.31%	1500	4366	34.36%

Source: Tourism labor Market Information System – available at: https://www.ipea.gov.br/extrator/simt.html.
* Tourism Characteristic Activities.

Table 2 – Research Sample

Destination	Number of Hotels*	Questionnaires	%
Gramado	213	105	49.29
Bonito	90	41	45.55
Tiradentes	174	63	36.20
Itatiaia	130	52	40.00
Total	**607**	**261**	**42.99**

* Source: *Trip Advisor*.

Table 3 – Constructs and Variables

Construct	Variables	Measures
Vertical Relationships	Q1. Travel Agencies Q2. Tour Operators Q3. Tourist Reception Agencies Q4. Websites Q5. Passenger transport companies Q6. Restaurants Q7. Entertainment Firms Q8. Tourist Attractions Q9. Car Rental Firms Q10. Event Organizing Firms Q11. Suppliers	7 point-scale: varying from 1 (no importance) to 7 (extremely important)
Horizontal Relationships	Q12. Hotels and Inns Q13. Other Lodging Firms Q14. Hotels or Inns from other Locations	7 point-scale: varying from 1 (no importance) to 7 (extremely important)
Support Organizations	Q15. Hotel Associations Q16. City Government Q17. State Government Q18. Banks Q19. Convention and Visitors Bureau Q20. Workers Union Q21. Social Service Organizations (Sistema S) Q22. Universities Q23. Guide Association Q24. NGOs	7 point-scale: varying from 1 (no importance) to 7 (extremely important)
Competition	Market concentration	Inverse of the Herfindahl-Hirschman Index (1/HHI)
Performance	(i) Evaluations (ii) Evaluations /room (iii) Top Evaluations	(i) Number of evaluations in a one-year period. (ii) Number of evaluations in a one-year period per number of rooms. (iii) Number of top evaluations per total evaluations received in a one-year period.

Table 4 – Model Fit Values

Statistics	Reference Values	Measurement Model	Preliminary Model	Final Model
X^2/ g.l.	Value < 2	2.06	3.76	2.02
GFI;	Value > 0.9	.903	.831	.901
CFI		.925	.799	.925
PGFI;	Value > 0.6	.650	.612	.669
PCFI.		.743	.658	.768
RMSEA	Value > 0.05	.064	.103	.063

Source: adapted from Marôco (2014) and Hair *et al*. (2010), with data from the research.

Table 5 – Constructs Reliability and Validity Analysis

Construct	Variables	FL	FC	AVE	Correlations			
					(1)	(2)	(3)	(4)
Vertical Relationships (1)	Q8. Tourist attractions	0.54	0.83	0.51	(.71)			
	Q6. Restaurants	0.62						
	Q5. Passenger transport companies	0.79						
	Q3. Tourist Reception Agencies	0.64						
	Q1. Travel Agencies	0.52						
Horizontal Relationships (2)	Q14. Hotels or Inns from other locals	0.63	0.70	0.44	.67	(.66)		
	Q13. Other Lodging firms	0.63						
	Q12. Hotels and Inns	0.45						
Support Organizations Relationships (3)	Q16. City Government	0.65	0.89	0.59	.70	.87	(.76)	
	Q17. State Government	0.71						
	Q21. Social Service Organizations	0.66						
	Q23. Guides Association	0.64						
	Q24. NGOs	0.71						
	Q15. Hotel Associations	0.67						
Performance (4)	Top Evaluations	0.62	0.88	0.72	.12	.23	.13	(.84)
	Evaluations	0.70						
	Evaluations /room	0.96						

Notes:FL: Factor Loading; FC: Factor Convergence. AVE = Average variance extracted. Values in parentheses represent the square root of the AVE values for the respective constructs.

Table 6 – Path Coefficients – Model 1

Hypotheses and Structural Paths	Estimates	p-value	Result
H1: Vertical Relationships → Performance	.049	.485	Non-significant
H2: Horizontal Relationships → Performance	.224	.015	Significant
H3: Support Org. Relationships → Performance	-.050	.480	Non-significant
H5: Competition → Performance	-.125	.059	Significant
H6: Competition → Horizontal Relationships	-.154	.060	Significant
H7.1: Competition → Vertical Relationships	-.076	.273	Non-significant
H7.2: Competition → Support Org. Relationships	-.160	.020	Significant

Table 7 – Path Coefficients – Final Model

Hypotheses and Structural Paths	Estimates	p-value	Result
H2: Horizontal Relationships → Performance	.171	.029	Significant
H4.1: Support Org. Relationships → Vertical Relationships	.709	.000	Significant
H4.2: Support Org. Relationships → Horizontal Relationships	.868	.000	Significant
H5: Competition → Performance	-.132	.045	Significant
H6: Competition → Horizontal Relationships	-.020	.755	Non-significant
H7.2: Competition → Support Org. Relationships	-.154	.024	Significant

Figure 2 – Final Model