Abstract

Purpose – This article delves into the antecedents of business performance. The main aim of this study is to analyze the effect of knowledge transformation on business performance in firms in the tourism industry and how cognitive and structural social capital heterogeneously moderate this relationship.

Design/methodology/approach – The empirical study was conducted on a sample of 300 firms from the tourism industry in Arequipa-Perú. The analysis was performed by means of partial least squares structural equation modeling, using the Smart PLS software.

Findings – Our findings show that knowledge transformation is key factor for increasing business performance. The results also highlight the significance of interorganizational relationships in this effect and the importance of analyzing each dimension of social capital separately. Thus, it is observed that cognitive social capital enhances the relationship between knowledge transformation and business performance, while (Sari and Indriani, 2023) structural social capital hinders it.

Practical implications – The findings assist practitioners in developing a shared culture, values and goals with their contacts to improve business performance. Furthermore, firms should establish bridging ties with external agents to avoid be stuck in excessively dense networks. Relationships with institutions can act as a bridging agent.

Originality/value – This paper analyses the unresolved question of how knowledge transformation affects the business performance of companies in the tourism sector as well as how different dimensions of social capital influence in this relationship. Addressing these two critical, but as yet unresolved questions, this study draws on absorptive capacity and social capital theories as an overarching framework to present a conceptual model that integrates both theories in order to analyze the effect of knowledge transformation on business performance in tourism firms and the role of structural and cognitive capital on this relationship.

Keywords – Cognitive social capital, Structural social capital, Knowledge transformation, Absorptive capacity, Business performance

Paper type – Research paper

1. Introduction

In recent years, extensive global competition has been identified in the tourism sector, forcing organizations to attract visitors by offering novel products and services that allow...
them to improve both their financial and non-financial performance (Espino-Rodríguez and Ramírez-Pierro, 2018; Sari and Indriani, 2023). Consequently, many studies have sought to identify the determinants of improving business performance (BP) (Dimitriadis and Koning, 2022; Seidu et al., 2022).

In this respect, absorptive capacity has been analyzed and proposed as a strategic factor in generating competitive advantages in companies (Hossain et al., 2022; Kruesi and Bazelmans, 2022; Situmorang and Japutra, 2024). Absorptive capacity can be defined as the ability to acquire, assimilate, transform and exploit external information to enable the creation of competitive advantage (Zahra and George, 2002). Although there are many studies on knowledge management and the process of information acquisition and its effect on the outcome (Borges Tiago et al., 2007; Liebowitz, 2001; Nonaka and von Krogh, 2009). There is little evidence of research conducted in the context of tourism hospitality (Garay et al., 2017). The recent literature points to the need for studies to conduct in-depth analysis of the effect of knowledge transformation (KT) on business results in the tourism industry (Lim and Ok, 2023; Situmorang and Japutra, 2024). This is because KT is a key stage that allows a company to face new business opportunities according to market demands and thus foster a competitive advantage (Guo et al., 2020). Consequently, we detect a gap in the literature regarding how KT affects the BP of companies in the tourism sector.

Thus, we consider the success of KT in tourism firms depends on interorganizational relationships between firms. In this line, previous research has suggested that social capital is essential to ensure the resources needed for successful KT (Guo et al., 2020; Liu, 2018). The previous literature also indicates that social capital facilitates access to key information and resources for business success, emerging as an important determinant of BP (Daswati et al., 2022). Nahapiet and Goshal (1998) propose three dimensions. Relational capital identifies the characteristics of individual and organizational relationships developed through their interaction. Structural social capital (SSC) includes key factors such as network density and the strength of relationships (Bojica and Fuentes, 2012), providing advantages related to the richness of information transmitted through the network and disadvantages associated with redundancy problems in the information exchanged (Koka and Prescott, 2002). Finally, cognitive social capital (CSC) includes culture and shared goals as fundamental characteristics that enable organizations to transfer and acquire valuable knowledge (Sheng and Hartmann, 2019).

Despite the extensive literature on the effects of social capital on BP (Mai et al., 2023; Ognjanovic et al., 2023), the results are inconclusive, since the dimensions of social capital have different functions and impacts on firm value and capability improvement (Liu, 2018). Wilke et al. (2019) highlight the need for analyze how interorganizational networks affect BP in the tourism industry. In this sense, interorganizational relationships have particular importance in the context of tourism destinations, where relationships and integration between organizations directly and indirectly related to tourism allow customers to be provided with complete tourism experience (Denicolai et al., 2010). Here, CSC and SSC appear as the most controversial ones. This is because, despite the positive relationships detected between these dimensions of social capital and BP (Molina-Moreno et al., 2014; Ngoc Ton et al., 2023; Rodrigo-Alarcón et al., 2018), some perverse effects may appear with excessive levels of certain dimensions of social capital. Thus, an excess of SSC would lead firms to maintain dense networks with very strong ties that can produce internal blockages in the network, and inertia and myopia that weaken the achievement of business results (Sheng and Hartmann, 2019). In this line, the question of how these two dimensions influence the effect of KT on tourism firms’ BP of remains unsolved.

Addressing these unsolved questions, this study draws on absorptive capacity and social capital theories as an overarching framework to present a conceptual model analyzing the effect of KT on BP in tourism firms and the role of SSC and CSC on this relationship. Therefore, the objective of this research is to analyze the effect of KT on BP and the moderating effect of CSC and SSC on this relationship. This study provides new theoretical and empirical contributions on
the role of KT as a key determinant of BP, responding to the demand in the literature for in-depth analysis of the knowledge management process in tourism and hospitality firms (Garay et al., 2017; Muhammed and Zaim, 2020). Thus, three main contributions can be highlighted. First, the study fills the gap in the literature by linking theories of social capital, dynamic capabilities in tourism firms. Second, this study examines, KT responding to the call from Situmorang and Japutra (2024) for analysis of the specific dimension of absorptive capacity in the tourism sector. Third, CSC and SSC are independently analyzed as moderating variables, as supported by arguments put forward in previous studies (Menike, 2020).

Based on this outline, the work is structured in the following sections: First, the introduction to the subject under study is presented, while the theoretical framework and hypotheses are developed in the second section. The third section explains the methodological design, followed by the results obtained, which are then discussed. The final section presents the conclusions, limitations and future lines of research.

2. Literature review and hypothesis development
2.1 Knowledge transformation
Knowledge has been proposed as a strategic factor that allows for the transfer of information on market trends and demands, which can be incorporated into new routines, products or processes to serve a constantly evolving market (Vasconcelos et al., 2019). The knowledge absorption capacity of companies, approached from the theory of dynamic capacities (Volberda et al., 2010), is defined as the capacity of companies to use external knowledge (Cohen and Levinthal, 1990; Peng and Lin, 2021). This capacity has four components: Acquisition allows valuable knowledge generated abroad to be located and acquired. Assimilation refers to the procedure of analyzing, interpreting, learning and storing new knowledge (Szulanski, 1996). Transformation allows new knowledge and existing knowledge to be reorganized (Zahra and George, 2002). Finally, exploitation denotes the ability to effectively use acquired knowledge to create something new (Flatten et al., 2011).

We focus on the KT as a learning capacity, defined as the transformation of ideas, information, or new behavior for the organization that adopts them (Yew, 2021). Developing the process can be a significant challenge for the company because it requires identifying the boundaries between existing and new knowledge, which will be tested, accepted or abandoned (Córcoles Muñoz et al., 2023). The importance of KT for BP can be exemplified in various contexts, including tourism (Batra et al., 2023; Muhammed and Zaim, 2020). Knowledge is transformed and will be put into service for the development of new tourism products, to successfully operate in the sector (McLeod, 2020). In this line, Liu and Dong (2021) argue that KT can foster higher performance of tourism firms because it facilitates innovation, improves service quality, reduces costs and improves business profitability.

In summary, the transformation process involves accommodating new knowledge to organizational structures, generating improved performance (Cruz-Ros et al., 2021). Also, knowledge management is key to the success of the transformation of individual knowledge into organizational knowledge (Liebowitz, 2001). Even more so if we take into account the technological advance focused on the digitalization of knowledge generates new opportunities for virtual management and electronic commerce (Borges Tiago et al., 2007). The above arguments lead us to propose the following hypothesis:

\[ H1. \] Knowledge transformation has a positive effect on business performance.

2.2 Moderating effect of cognitive social capital
CSC allows for the proper interpretation of how information flows through the network towards new knowledge (Presutti et al., 2022), and it refers to the system of representations,
meanings and interpretations shared by network members that transfer information (Masiello et al., 2015). This dimension comprises two key aspects: shared goals, which represent how participants understand and accept their participation in achieving tasks and outcomes (Inkpen and Tsang, 2005), and shared culture, which highlights how behavioral norms guide the interaction between network agents (Molina-Morales et al., 2014).

It has been evidenced that knowledge strategies and cognitive capital are determinants of organizational performance (Guo et al., 2020; Xie et al., 2021). Firms need to obtain significant new information to gain organizational outcomes and competitive advantage, which can be achieved through relationships with their contacts (Martínez-Pérez et al., 2021). In this sense, CSC creates an atmosphere of trust, empathy and predisposition to exchange knowledge, obtaining better individual and organizational performance (Ruiz-Ortega et al., 2021). Furthermore, high levels of CSC reduce misinterpretations and conflicts and the homogeneity of the members of the network generates opportunities for the transfer of knowledge (McLeod, 2020). Thus, the greater the shared goals and values, the more easily information is transferred, generating more tacit knowledge. This, in turn, enhances the relationship with tacit KT, which plays an important role in the growth and BP (Lee et al., 2021). Drawing on these arguments, the following hypothesis is proposed.

\[H2.\] Cognitive social capital has a positive impact on the relationship between knowledge transformation and business performance.

2.3 The moderating role of structural social capital
SSC has been a focus of research interest in recent years, with its conceptual foundation lying in social network theory, given the controversy surrounding its effects (Martínez-Pérez et al., 2019). Great importance has been given to the configuration of networks, which identifies the ties between members of the firm, acting as a means to exchange resources (Subramaniam et al., 2013). In addition, the configuration identifies the pattern of links generated in the network (Tsai and Ghoshal, 1998; Nahapiet and Goshal, 1998). In this sense, the density of ties describes the level at which an organization relates to other firms or the degree to which contacts are related to each other (Coleman, 1988). Additionally, their strength and the combination of time and emotional intensity have also been reported to characterize these ties (Granovetter, 1973).

Social capital has been shown to be a predictor of BP, and the absorption and creation of new knowledge facilitate and increase BP as a result of the relationships generated in the workforce (Ahmed et al., 2020; Su et al., 2023). Nonetheless, high levels of density in the network and the strength of the links established in a company’s relationships may lead to a situation of internal blockage and access to irrelevant and redundant information, limiting the horizon of access to information within its main network (Koka and Prescott, 2002). Consequently, dense ties may have an adverse effect on the relationship between KT and BP due to the lack of access to the necessary information that initiates the transformation process towards new knowledge.

Companies operating in dynamic environments, such as tourism companies, need to have updated information about the environment, as well as the necessary resources to face competition. In this sense, the negative moderating effect is related to the isolation of the members of dense networks, which creates an obstacle to accessing novel external information (García-Villaverde et al., 2019). Additionally, the redundancy of information causes myopia and inaction to face market demands and changes. Specifically, firms with excessive dense networks do not allow access to new information about market opportunities that lead to better results (García-Villaverde et al., 2021). The organization gets information from its network contacts who basically have similar knowledge, so there is no new knowledge available to face market changes (García-Villaverde et al., 2020). Therefore, the following hypothesis is put forward.
H3. Structural social capital has a negative impact on the relationship between knowledge transformation and business performance.

3. Methods
3.1 Population and sample
This research was conducted in companies in the tourism sector of the Arequipa (Peru), an extremely important sector that has received several awards, such as being recognized as national cultural heritage, as well as being named a gastronomic cultural destination and a creative city in gastronomy by UNESCO, generating expectation for visits from both national and international tourists. In 2022, arrivals at the city’s international airport reached 842,207, which represents an increase of 88.6% with respect to 2021 (INEI et al., 2022), being considered a major activity for the development of the region. Unlike, other sectors, tourism involves the entire community, generating employment opportunities (Moyle et al., 2020).

Based on the information requested through the information transparency law from the Superintendence of Tax Administration (SUNAT), about formal companies, the database was filtered for the tourism sector as of October 31, 2021, considering only companies with more than one worker engaged in tourism-related activities, such as hotels, restaurants, lodging, and travel agencies, operating in Arequipa, 776 companies. A pilot questionnaire was sent to 20 companies for a preliminary evaluation to assess its relevance. It was observed that all the questions were understood by the managers and it was thus unnecessary to make any changes. This may be because all the scales used had been widely implemented in the previous literature. Finally, by visiting companies, the questionnaire was administered to the total sample of managers and/or owners, which makes it possible to ensure that the person answering the questionnaire has all the necessary knowledge to do so. 300 valid questionnaires were obtained, which represents a response rate of 38.66% for a confidence level of 95% and a worst-case scenario of \( p = q = 0.5 \). The sampling error was 4.43%. The analysis revealed no significant differences between the population and the sample in terms of firms’ age and size. The characteristics of the companies that replied to the questionnaire are shown in Table 1.

3.2 Measures
The instrument was constructed by adapting validated questionnaires to a seven-point Likert-type scale, where 1 was “strongly disagree” and 7 was “strongly agree.” Pointing out that the measurement scales have been chosen as a result of a careful review of important previous studies.

Cognitive social capital: This comprised two components: shared goals and shared culture, the first identify the institutional norms imposed by the network (Gulati et al., 2000).

<table>
<thead>
<tr>
<th>Age</th>
<th>Employee number</th>
<th>Family relationship</th>
<th>Source(s): Own preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–5</td>
<td>64</td>
<td>1–5</td>
<td>222</td>
</tr>
<tr>
<td>6–10</td>
<td>94</td>
<td>6–10</td>
<td>40</td>
</tr>
<tr>
<td>11–15</td>
<td>50</td>
<td>11–15</td>
<td>21</td>
</tr>
<tr>
<td>16–20</td>
<td>45</td>
<td>16–20</td>
<td>6</td>
</tr>
<tr>
<td>21–25</td>
<td>22</td>
<td>More than 20</td>
<td>11</td>
</tr>
<tr>
<td>26–30</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 30</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>Total</td>
<td>300</td>
</tr>
</tbody>
</table>

Table 1. Profile of the respondents
This has been measured by various scales (Simonin, 1999), which were subsequently validated and applied, through two items (Molina-Morales et al., 2014). For shared culture, four items were used, adapted from a scale (Ye, 2005).

**Structural social capital:** This variable focuses on the relationships generated in the network within a company (Tsai and Ghoshal, 1998), and for which the present study took into account the strength and density of ties in the network of contacts, measured through three items that assess the strength of relationships and three items that measure the density of the relationships (Maula et al., 2003). Both constructs were applied based on previous studies (Rodrigo-Alarcón et al., 2018).

**Knowledge transformation:** This is defined as changes in ideas, knowledge and behavior that are new to whoever uses them. To measure this variable, we adapted the four-item scale proposed by Nonaka and von Krogh (2009).

**Business performance:** This variable was measured using the degree of satisfaction with, and the degree of importance given to, outcomes, which are indicators that have been applied in the previous literature (Martínez-Pérez et al., 2021). It addresses two components, profitability and growth, each with two items.

**Control variables:** The control variables were as follows: firm age operating in the market, determined by the difference between the current year and the year in which the company was created; the size of the company, which is measured by the number of employees; and family ownership, which refers to the family relationship between the company’s employees and managers. Table 1 shows profile of the respondents.

### 3.3 Data analysis

Harman’s one-factor test is the technique that allows detecting common method bias through an exploratory or confirmatory factor analysis. It also suggests that including all items produces a factor of more than 50% of the variance identifying the existence of common method bias (Podsakoff et al., 2003). The result obtained from Harman’s test was 40.60% a value that is below 50.00% indicating that CMB is not present.

Finally, we used self-reported data that can introduce bias. Although we have included some test to control this bias. The incorporation of more objective performance measures to enhance validity could be a great future research.

The information collected was analyzed by means of structural equation modeling with the partial least squares technique, using the Smart PLS software version 4.0.9.6, which facilitates the study of constructs in the context of social sciences (Chin and Dibbern, 2010). PLS is considered an appropriate technique for data analysis in this study because it establishes minimum requirements on the sample, the measurement scale and distribution of the variables, without requiring the normality of data (Fornell and Bookstein, 1982). We also consider it appropriate for this study because PLS analyze a large number of variables, since it uses simple algorithms, and the estimates of the constructs have more practical meaning, in addition to being considered appropriate for small samples (Chin, 1998).

In our case, PLS assesses the direct relationship between the latent independent variable KT and BP; incorporating the moderating variables, CSC and SSC (Hair et al., 2019a, b). The analysis consisted of two stages. First, the measurement model was designed, evaluating the factor loading of the items comprising the proposed constructs. This stage aimed to measure the reliability and validity of these indicators. In the second stage, the structural model was evaluated by analyzing the causality of relationships between variables (Hair et al., 2019a, b). The statistical significance of the model coefficients estimated in PLS-SEM was tested using bootstrapping, creating subsamples with randomly drawn observations (Davison and Hinkley, 1997).
4. Results
4.1 Evaluation of the measurement model
To analyze the measurement model, five steps should be considered: (1) estimate the loads and their \( p \)-value, (2) estimate the reliability of the indicator, (3) examine the reliability of the internal consistency, (4) obtain the extracted mean variance (AVE), (5) check the discriminant validity through HTMT (Hair et al., 2020). When evaluating reflective constructs, the following should be considered: (1) estimate loads and their \( p \)-values, it is suggested that indicator loads should be at the threshold of 0.70 and statistically significant at 0.05 or less (equal to the statistic \( t \) of 1.96). Values 0.40 and 0.70 can be explained (Hair et al., 2019a, b) if acceptable values are obtained in other indices. The \( p \)-values of the loading in PLS-SEM are usually obtained by running a boot procedure (Hair et al., 2013). Also, 95% confidence intervals (CI) can be checked to determine the range within which 95% of estimated loads will be located when repeated random sampling of the population of interest is performed. Research indicates that the accelerated and bias-corrected (BCa) boot approach adjusts biases and asymmetry in data and should therefore be used when data deviates from normal (Hair et al., 2017). In addition, confidence intervals that do not include zero indicate statistical significance. Values below the cut-off value should not be removed automatically. Rather, the researcher needs to verify that such removal does not affect convergent validity and reliability. (2) Estimate the reliability of the indicator, an acceptable value is considered 0.50 which reflects that the article shares at least 50% of the variance with the construct. (3) The internal consistency reliability of the construct is analyzed through Cronbach’s alpha reliability (\( \alpha \)) and composite reliability (CR) considered acceptable 0.70 (Hair et al., 2017). If the reliability estimate is 0.95 or higher, it is interpreted that the individual elements possibly measure the same aspect of the construct, so they are considered redundant (Hair et al., 2022). (4) We also analyze the Average Variance Extracted (AVE), shows the degree to which the items of a specific construct correlate positively and share a high degree of variance, the values reached are 0.50 that reveals convergent validity of the construction, therefore (5) Finally, the literature suggests that these data can be confirmed by applying the heterotrait-monotrait relationship (HTMT), which reflects the extent to which the construct is conceptually different from other constructs considered in the research, considering conservative HTMT cut-off values < 0.85 and more liberal values < 0.90. The results show that the proposed constructions have discriminatory validity (Hair et al., 2022). Data are shown in Table 2.

In the study, it was found that the internal consistency of the items of the variables showed the values expected. As regards the factor loading, is marked in bold. The data shown in Table 1 confirm that the measurement model is valid, given that the variables and their indicators comply with the parameters suggested by the literature (Hair et al., 2019a, b). Thus, the next stage was the evaluation of the structural model. Table 3 shows the internal consistency of the indicators. The cross-loadings can be observed and marked in bold.

<table>
<thead>
<tr>
<th></th>
<th>Internal consistency</th>
<th>Convergent validity</th>
<th>Discriminant validity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cronbach’s alpha</td>
<td>Composite reliability</td>
<td>AVE</td>
</tr>
<tr>
<td>KT</td>
<td>0.780</td>
<td>0.872</td>
<td>0.695</td>
</tr>
<tr>
<td>CSC</td>
<td>0.923</td>
<td>0.940</td>
<td>0.724</td>
</tr>
<tr>
<td>SSC</td>
<td>0.905</td>
<td>0.927</td>
<td>0.679</td>
</tr>
<tr>
<td>BP</td>
<td>0.842</td>
<td>0.893</td>
<td>0.679</td>
</tr>
</tbody>
</table>

Note(s): The results show that the proposed constructions have discriminatory validity (Hair et al., 2022). The data are shown in italics in Table 2.

Source(s): Own preparation

Table 2. Analysis of reliability, convergent validity and divergent validity of the constructs
4.2 Evaluation of the structural model

Harman’s one-factor test is the technique that allows detecting common method bias through an exploratory or confirmatory factor analysis. It also suggests that including all items produces a factor of more than 50% of the variance identifying the existence of common method bias (Podsakoff et al., 2003). The result obtained from Harman’s test was 40.60% a value that is below 50.00% indicating that CMB is not present.

The study also shows the collinearity analysis, measured using the variance inflation factor (VIF). The values are below the threshold of 5 (Hair et al., 2019a, b), confirming that none of the indicators presents a critical level of collinearity. Furthermore, a multigroup analysis was used, with no differences related to firm size and experience being found. Table 4 presents the evaluation of the direct relationship of the proposed model, showing a $\beta = 0.308^{***}$ and $p < 0.000$, which shows a positive and significant effect. These data allow us to accept Hypothesis H1.

Table 5 also shows the results for the moderating effect of the CSC variable on the relationship between KT and BP, with $\beta = 0.148^*$ and $p < 0.018$ showing a positive and significant effect.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Direct effect</th>
<th>$T$</th>
<th>95% confidence interval</th>
<th>$R^2_{adj}$</th>
<th>$p$-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: KT $\rightarrow$ BP</td>
<td>0.308</td>
<td>5.643</td>
<td>0.188-0.405</td>
<td>0.100</td>
<td>0.000***</td>
<td>Supported</td>
</tr>
<tr>
<td>Note(s): *** $p&lt;0.001$</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Source(s): Own elaboration</td>
<td></td>
<td></td>
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</tbody>
</table>

Table 4. Analysis of the direct relationship model

Table 3. Analysis of discriminant validity by cross-loadings

<table>
<thead>
<tr>
<th>Item</th>
<th>Cross loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KT</strong></td>
<td></td>
</tr>
<tr>
<td>Cabsor8 We share aims and goals with our contacts</td>
<td>0.404</td>
</tr>
<tr>
<td>Cabsor10 Our employees successfully link new knowledge with new points of view</td>
<td>0.427</td>
</tr>
<tr>
<td>Cabsor11 Our employees are able to apply new knowledge in their work</td>
<td>0.360</td>
</tr>
<tr>
<td><strong>CSC</strong></td>
<td></td>
</tr>
<tr>
<td>Cogni1 We share the same ambitions and vision as our contacts</td>
<td>0.860</td>
</tr>
<tr>
<td>Cogni2 Our employees are motivated to seek common aims and missions with our contacts</td>
<td>0.904</td>
</tr>
<tr>
<td>Cogni3 We share aims and goals with our contacts</td>
<td>0.817</td>
</tr>
<tr>
<td>Cogni4 We understand our contacts’ needs and strategies</td>
<td>0.789</td>
</tr>
<tr>
<td>Vision1 Our employees and those of our contacts have positive attitudes towards cooperation</td>
<td>0.866</td>
</tr>
<tr>
<td>Vision2 Our company and our contacts agree about how to conduct working relationships</td>
<td>0.865</td>
</tr>
<tr>
<td><strong>SSC</strong></td>
<td></td>
</tr>
<tr>
<td>Forta1 We frequently interact with our contacts</td>
<td>0.867</td>
</tr>
<tr>
<td>Forta 2 We know our contacts personally</td>
<td>0.833</td>
</tr>
<tr>
<td>Forta 3 We have close social relationships with our contacts</td>
<td>0.828</td>
</tr>
<tr>
<td>Densi 1 The resources and information we exchange with our contacts tend to be similar</td>
<td>0.846</td>
</tr>
<tr>
<td>Densi 2 The contacts with whom we frequently interact tend to know one another</td>
<td>0.832</td>
</tr>
<tr>
<td>Densi 3 The contacts that give us useful advice and information for making important decisions know one other</td>
<td>0.729</td>
</tr>
<tr>
<td><strong>BP</strong></td>
<td></td>
</tr>
<tr>
<td>Prof1 Return on investment, level of importance to your business</td>
<td>0.713</td>
</tr>
<tr>
<td>Margin2 Net profit margin, level of importance to your business</td>
<td>0.873</td>
</tr>
<tr>
<td>Mkt3 Market share, level of importance to your business</td>
<td>0.894</td>
</tr>
<tr>
<td>Growth4 Sales growth, level of importance to your business</td>
<td>0.804</td>
</tr>
<tr>
<td>Source(s): Own elaboration</td>
<td></td>
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</tbody>
</table>
significant effect, which means Hypothesis H3 can be accepted. In addition, the moderating effect of SSC on the relationship between KT and BP yields $\beta = -0.168^*; p < 0.016$, showing a negative and significant effect, thus confirming Hypothesis H4. Figure 1 shows the results of the proposed model, including the control variables of size, family and age.

4.2.1 Evaluation of predictive validity. The predictive power of the integral model was evaluated, using the technique proposed by (Shmueli et al., 2019), using the PLS-SEM prediction algorithm. The results of this analysis show that if the residual errors of the PLS-SEM are smaller than the residual errors of the linear regression (LM), it is assumed that the model has predictive power. Figure 1 shows the results obtained.

Figure 1 show the relationships used to determine the nature of the interactive effects of CSC and SSC on the relationship between KT and BP.

Figures 2 and 3 also show the moderation effects between KT and BP. On the y-axis, we have BP and, on the x-axis, KT for high and low levels. The results suggest that, for high levels of CSC, the slope increases considerably, leading to small increases in KT to obtain a more than proportional increase in BP, while, for low levels, the relationship becomes slightly negative. Hence, the intensity of the moderating effect is evidenced at high levels, while, SSC also shows a negative effect on the relationship between KT and BP, which adds further strength to the finding of a negative interaction.

5. Discussion and conclusions
The results show that social capital and KT are critical challenges for the managers of tourism firms. Following a sample of 300 tourism firms, the results of this study clarify the

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Beta</th>
<th>T</th>
<th>95% confidence interval</th>
<th>$R^2_{adj}$</th>
<th>Significance $(p &lt; 0.05)$</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2: CSC X KT $\rightarrow$ BP</td>
<td>0.148</td>
<td>2.391</td>
<td>0.031–0.278</td>
<td>0.018*</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>H3: SSC X KT $\rightarrow$ BP</td>
<td>$-0.168$</td>
<td>20.443</td>
<td>$-0.310$–$-0.034$</td>
<td>0.016*</td>
<td>Supported</td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Moderation model

![Diagram of the model with notes and sources](Figure 1. Model results)
relationship between social capital and KT through a moderating process that allows for a better understanding of this phenomenon and the formulation of an effective strategy. More broadly, this study responds to the calls of knowledge management scholars, who have long advocated for an inductive approach to uncovering effective KT processes in highly competitive environments (Liu, 2018; Situmorang and Japutra, 2024).

This study highlights the importance of absorptive capacity, specifically transformational capacity, to achieve superior results and the key role of good social network management as it moderates their effect on divergent outcomes. Thus, our study complements previous research on the effects of social capital and KT and their impact on performance in tourism destinations (Muhammed and Zaim, 2020; Ognjanovic et al., 2023). Although it should be noted that the variables were previously studied as predictors individually, our study incorporates them into a novel model that allows a better understanding of their effect on BP.

Specifically, the research demonstrates the positive influence of KT on BP, in line with the suggestions put forward by Azinuddin et al. (2022) revealing that information must be absorbed and transformed quickly due to the performance changes typical of the environment in which tourism operates (Abdollahi et al., 2023; Cruz-Ros et al., 2021). This finding reinforces the notion established by Situmorang and Japutra (2024) that tourism companies must be able to transform knowledge in order to use it strategically.

<table>
<thead>
<tr>
<th></th>
<th>$Q^2$</th>
<th>PLS-SEM RMSE</th>
<th>LM RMSE</th>
<th>PLS-SEM-LM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>0.084</td>
<td>8.827</td>
<td>8.851</td>
<td>-0.024</td>
</tr>
<tr>
<td>Margin</td>
<td>0.273</td>
<td>9.337</td>
<td>9.605</td>
<td>-0.268</td>
</tr>
<tr>
<td>Market</td>
<td>0.131</td>
<td>7.853</td>
<td>8.011</td>
<td>-0.158</td>
</tr>
<tr>
<td>Growth</td>
<td>0.066</td>
<td>8.473</td>
<td>8.477</td>
<td>-0.004</td>
</tr>
</tbody>
</table>

**Table 6.** Results of prediction analysis

**Source(s):** Own elaboration

Figure 2. Moderation plot SSC

Figure 3. Moderation plot CSC

**Source(s):** Own preparation
The results obtained also show the importance of SSC for successful KT. Thus, a moderating effect of the different dimensions of social capital in the process that leads to KT has been observed, resulting in better outcomes. More specifically, a divergent moderating effect is detected, where CSC enhances the effect of KT on BP, confirming the importance of network members sharing goals, language, and culture, as this drives rapid KT (Lee et al., 2021; You and Hon, 2019). However, SSC reduces this effect, confirming the results of Su et al. (2023). Hence, this study advances the work by Liu (2018) by separately analyzing how two dimensions of social capital have divergent effects on the organizational learning process leading to better outcomes.

5.1 Conclusions
This study addresses two critical issues in the literature that remain unresolved which ensures the uniqueness of this paper. Thus, there are no studies that analyze how a specific dimension of absorptive capacity influences on BP in tourism and hospitality firms, as has been demanded (Situmorang and Japutra, 2024). Furthermore, there are no studies that add the moderating effect of two dimensions of social capital separately in the previous relationship. Therefore, this study provides new theoretical and empirical contributions on the role of KT as a key determinant of BP, responding to the demand in the literature for in-depth analysis of the knowledge management process in tourism and hospitality firms (Garay et al., 2017), and more specifically, to the need to delve into the effect of KT on BP in the tourism industry (Lim and Ok, 2023; Situmorang and Japutra, 2024), and the role of SSC in the context of tourism destinations, as has been demanded by the literature (Wilke et al., 2019).

Our research contributes to a greater understanding of the effect of KT on BP, including CSC and SSC as moderating variables, in order to understand the effect on BP (Shang et al., 2018). The results show the relevance of analyzing each dimension of social capital as independent variables, since their effects can be different, obtaining divergent effect of SSC and CSC (Rodrigo-Alarcón et al., 2017). Thus, since CSC foster the positive effect of KT on BP, high levels of SSC hamper this positive effect. As a result, a proper administration of social networks can be a key issue to get BP in tourism sector. The main academic and managerial implications that can be drawn from this study are summarized as follow.

5.2 Theoretical implications
This study provides a better understanding of the determinants of BP and offers a new theoretical and empirical contribution on the role of KT as a key element of BP. Thus, it responds to the demand in the literature for greater research into the process of knowledge management (Garay et al., 2017), and more specifically, to the need to delve into the effect of KT on BP in the tourism industry (Lim and Ok, 2023; Situmorang and Japutra, 2024). In addition, this research examines the role SSC in the context of tourism destinations, as has been demanded by the literature (Wilke et al., 2019).

In terms of theoretical implications, this study fills the gap in the literature by linking the theories of social capital and dynamic capabilities to BP in tourism firms. Furthermore, CSC and SSC are differentiated both have been incorporated as moderating variables, in an integral mode. Our results are supported by arguments proposed in previous studies (Garcia-Villaverde et al., 2019; Menike, 2020). In this line, Situmorang and Japutra (2024) establish the need to analyze the different dimensions of absorptive capacity in the tourism sector. This is because each capability has a unique structure of operational routines, integrates, reconfigures, and releases resources to enhance effectiveness in unique causal relationships (Wilke et al., 2019). Thus, our study helps bolster the understanding of how these structures are related to firm performance.
Moreover, our study contributes to the previous literature by analyzing the factors that indicate such transformational capability and its effects (Situmorang and Japutra, 2024). Thus, we shed light on how social networks diverge in their relationship with performance, showing how interorganizational relationships play an important role which the transformation of knowledge and higher performance.

5.3 Practical implications

Regarding the practical implications for tourism companies, firms must pay attention to the KT process due to its significance in BP. Managers may assume that new knowledge can have little value until it is properly transformed, so it is necessary to reinforce the process by which knowledge is refined, combined and properly assimilated to achieve better results.

Company managers should also promote the development of a shared culture, values and goals through periodic meetings with their main contacts, where network members communicate effectively, share new information, and are informed about the goals set by the organization. For example, it could be crucial to share the business values and goals with the main firms’ suppliers. Taking into account that the tourism sector is comprised of restaurants, hotels, and travel agencies, which carry out activities that link them in their daily operations, it is recommended to maintain an active communication channel in which the travel agencies recommend to visitors the hotels that are members of the network, and the hotels recommend to visitors the restaurants that offer products according to the diverse gastronomy for which the region is known. Effective communication channels with the environment should also be designed, to gather valuable information that is outside a firm’s network of contacts in order to avoid the dark side of structural capital, such as blindness or blockage. Although relationships with close contacts is a key question, to maintain some bridging agents will be also necessary to ensure high performance. Thus, the relationship with institutions can avoid this negative effect since institutions can act as a bridging agent. To attend to international tourism fairs, conferences and so on will be a good option to open the network of contacts, and avoid the negative effect of dense networks.

Thus, firms should be encouraged not to remain within excessively dense networks, establishing bridging links with external agents. These links allow new knowledge from the environment to be accessed, giving rise to innovation in the tourism offer and meeting the expectation of tourists. Additionally, the rapid systematization of information through digital tools is important to avoid duplication and to issue the reports necessary for teamwork and decision-making.

5.4 Limitations and future research

This study has some limitations, which allow several future research lines to be established. First, this study is focused on tourism firms in Arequipa (Perú), which does not allow for comparison with other sectors or countries, which may limit the generalizability of the results. However, we consider that these results could be extended to other service sectors and other developing countries. Future research could explore other sectors and countries. Second, it is worth mentioning that this a cross-sectional study, and not a longitudinal one. However, we consider that the research objectives were achieved based on information obtained through the questionnaire. Future research should consider using longitudinal data. Third, this study delves into two dimensions of social capital, cognitive and structural. Exploring other dimensions for measuring social capital seems a particularly rich area for future research. Finally, we used self-reported data that can introduce bias. Although we have included some test to control this bias. The incorporation of more objective performance measures to enhance validity could be a great future research.
References


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