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Cognitive social capital and new product performance: indirect effect of potential absorptive and innovation capacity: a tourism-based study

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Abstract

Purpose – The purpose of this paper is to respond to the existing gap in the literature and analyze empirically the mediating role of potential absorptive capacity and innovation capacity in the relationship between socio-cognitive capital and new product performance in tourism businesses.

Design/methodology/approach – Partial least squares structural equation modeling (PLS-SEM) was applied to measure the effect of independent variables and mediators on the results of new products through information collected from 300 companies through a structured questionnaire applied to tourism companies.

Findings – Important findings are presented demonstrating the positive and significant influence of cognitive social capital on the results of new products; however, this is not enough, so the potential absorption capacity and the capacity for innovation play a very important role in improving the effect on the results of new products. The findings suggest that organizations should direct their culture and shared goals toward assimilation and knowledge and the development of innovation capabilities in order to obtain more successful new product results.

Originality/value – The study adds value to the study of social capital by analyzing social cognitive capital and its impact on new product performance. In contrast to previous studies, it suggests incorporating potential absorptive capacity and innovation capacity as mediating variables in a comprehensive model that illustrates the positive spillover effect, thereby enhancing the outcomes related to new product performance.

Keywords Social capital, Cognitive capital, Product performance, Innovation capacity, Absorptive capacity, Tourism, Mediation analysis

Paper type Research paper

1. Introduction

Tourism has become a globally important activity, and its growth in recent years has captured the attention of business investors. However, the aggressive competition faced by organizations suggests identifying the determinants of success, in this case, represented by the new product performance (NPP) (Najafi-Tavani *et al.*, 2023). Companies affected by the pandemic-induced crisis have been forced to design novel products expected to be successful

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(Jin *et al.*, 2019). On the other hand, there is evidence of high levels of failure when companies launch new products, as new products inherently carry uncertainty regarding their acceptance (Awwad and Akroush, 2016). Notably, there is a scarcity of studies analyzing the determinants of NPP, identifying a gap in the literature. This study aims to complement the understanding of the direct effect of cognitive social capital (CSC) on NPP and the mediating effect of potential absorptive capacity (PACAP) and innovative capacity (IC) on the relationship between CSC and NPP.

Given the complexity of the tourism sector, previous studies have recognized the importance of social capital as an explanatory factor in the development of new products (Chowdhury *et al.*, 2020; Wu *et al.*, 2018). Its relationships facilitate the transfer of information and knowledge necessary to create novel products, and within its dimensions, CSC will be analyzed because it allows the creation of an environment of trust and understanding conducive to streamlining the flow of information, avoiding misinterpretation of messages and ensuring that network actors have the same perception of the environment and share the same perspective on the execution of actions oriented towards the results expected by the network (Chowdhury *et al.*, 2020; García-Villaverde *et al.*, 2018a, b). Along these lines, the positive effect of social capital on IC has been demonstrated, although there is also evidence that an excess of cognitive proximity could limit access to new knowledge (Molina-Morales *et al.*, 2014; Pham *et al.*, 2022).

Due to the importance of having environmental information as an input to renew knowledge (Kim *et al.*, 2018), we consider it crucial to incorporate PACAP as a variable that enhances the relationship between CSC and NPP. Information becomes knowledge shared by the network of contacts driving NPP (Chowdhury *et al.*, 2020; Huang and Liu, 2019). Previous studies have evidenced the direct and positive effect of PACAP on NPP (Chen and Chang, 2019). Likewise, it has been analyzed as a mediating variable, showing that it drives the relationship between CSC and IC (Rodrigo-Alarcón *et al.*, 2014) and as a moderating variable between CSC and entrepreneurial orientation (Kousar *et al.*, 2019; Rodrigo-Alarcón *et al.*, 2020). Considering this, we infer that PACAP could improve the linkage between CSC and NPP.

The IC is also proposed as a determinant for achieving good NPP, representing the application of creativity embodied in new products (Lumpkin and Dess, 1996). Along these lines, companies meet the needs of their customers by improving the quality and characteristics of the products they offer and even improving their processes, seeking consumer satisfaction (Alexiev *et al.*, 2016). Innovativeness promotes the NPP placed in the market (Ding and Ding, 2022; Najafi-Tavani *et al.*, 2018; Sun and Lau, 2020; Zheir *et al.*, 2018). The present work seeks to address the gap in the literature regarding the determinants of NPP and the divergence of results from previous research, thus posing the following research questions:

RQ1. What is the effect of CSC on NPP?

RQ2. What is the mediating effect of PACAP on the relationship between CSC and NPP?

RQ3. What is the mediating effect of IC on the relationship between CSC and NPP?

Based on these questions, the research objectives have been formulated. The first objective analyzes the effect of CSC on NPP. The second objective examines the mediating effect of PACAP on the relationship between CSC and NPP. The third objective investigates the mediating effect of IC on the relationship between CSC and NPP. This research significantly contributes to the literature by enhancing the understanding of the effect of CSC as an antecedent of NPP as proposed by Chowdhury *et al.* (2020). The second contribution examines the indirect effects of PACAP and IC in a comprehensive model that has not been studied previously in the context of companies in the tourism sector in developing countries.

This is based on an empirical study conducted with 300 companies located in Arequipa-Peru, a city that is particularly interesting for empirical application due to the expected reactivation of the tourism sector. This anticipation is a result of the architectural wealth highlighted by UNESCO, in addition to its recent recognition as a creative city in culinary arts awarded in 2020. Among other attractions of interest for visitors.

2. Literature review

2.1 New products performance

In today's competitive landscape, companies must grasp the evolving needs and expectations of customers, necessitating a continuous renewal and introduction of new products to the market, even though success is not guaranteed. While there is existing research on NPP, studies have not reached consensus (Cendana, 2021; Ding and Ding, 2022). Following Walheiser *et al.* (2021), managers gauge success based on the commercial acceptance of new products, aligning with Mu *et al.* (2017), who advocate reaping benefits post the introduction of a new product or service in the market compared to competitors. The variable is identified with dimensions: financial result; market effects supporting product differentiation from competitors and the opportunity for the company to cater to a specific market segment of characteristics that differentiate the products from the competition; and finally, the opportunity offered (Wu *et al.*, 2010).

For this study, innovation, profitability and sales are proposed as indicators to measure NPP (Xie and Gao, 2018). Success is shown to hinge on a company's ability to innovate and create new products (Najafi-Tavani *et al.*, 2023; Xie *et al.*, 2021). Tseng *et al.* (2008) demonstrated that innovation influences the performance of the tourism and hospitality industry. In the same line, it is stated that the best way to face competition from other companies in the sector is by ensuring the development of new products and services (Xie *et al.*, 2021), achievable through innovation and absorptive capacities (Mlozi, 2018).

2.2 Cognitive social capital

The theory of social capital is examined for its ability to elucidate the connections formed at various organizational relationship levels (Pratono, 2018), defining it as the resources a company possesses, accessible through the existing networks within the organization (Nahapiet and Goshal, 1998). Additionally, the relationships formed among its actors represent a fundamental resource for a company's success (Suseno and Pinnington, 2018; Wu *et al.*, 2018). Social capital is a multidimensional concept that identifies the structural, relational and cognitive dimensions (Koka and Prescott, 2002). This study specifically focuses on CSC, which significantly impacts knowledge sharing (Kim and Shim, 2018; Molina-Morales *et al.*, 2014). It plays a pivotal role in interpreting shared goals and culture among network actors (García-Villaverde *et al.*, 2021; Rodrigo-Alarcón *et al.*, 2018), facilitating information transfer and guiding entrepreneurs to explore market opportunities with new products (Xu, 2016).

Research in the tourism sector suggests that the cognitive dimension influences business connections through shared culture and goals, fostering information and knowledge exchange within business networks (Birendra *et al.*, 2019). Additionally, such information flow promotes the creation of new knowledge to collaboratively develop innovation (Kim and Shim, 2018). Also, CSC was found to have a positive and significant effect on radical innovation (García-Villaverde *et al.*, 2021). Likewise, Ruiz-Ortega *et al.* (2021) revealed that cognitive proximity can facilitate tourism companies to take advantage of entrepreneurship opportunities. Although there is also research that showed that the advantage of strong

relationships that share values and culture can hinder access to new knowledge, losing innovation opportunities (Rodrigo-Alarcón *et al.*, 2018). Cognitive proximity can generate information and knowledge overload, blocking access to valuable external information and generating isolation and inertia (Machado *et al.*, 2017; Pham *et al.*, 2022). Based on these arguments, a hypothesis is put forward.

H1. Cognitive social capital influences the new product performance in tourism companies.

2.3 Potential absorption capacity

Absorption capacity is recognized as the ability to identify new information, assimilate it and use it for commercial purposes (Cohen and Levinthal, 1990). Zahra and George (2002) propose the multidimensional concept identifying the potential and realized absorption as dimensions and as components of potential absorption, acquisition and assimilation and transformation and exploitation of realized absorption. In this paper we focus on the PACAP because it allows the development of competitive advantage through the permanent renewal of a stock of knowledge that is generated in the environment only to the extent that the members of the network demonstrate learning capacity (Fosfuri and Tribó, 2008). The members of the organization that have developed it are willing to acquire knowledge by interacting and sharing experiences with their peers (Crossan *et al.*, 1999). Assimilation concretizes the analysis, interpretation and understanding of new knowledge, which is incorporated into the company through socialization, also valuing previous knowledge (Mueller *et al.*, 2020).

The study of the PACAP is proposed because it is considered the main source of market information for the creation of novel and successful products. Flor *et al.* (2018). Posits that the process of acquisition and assimilation contributes to the development of novel products that are expected to be successful. It is confirmed that the PACAP is one of the important elements that influence the knowledge search of companies showing a curvilinear effect, which can generate advantages at a certain level and disadvantages at another level, for example, due to excessive costs and imbalance between cognitive distance and limited rationality (Kim *et al.*, 2018). Absorptive capacity has been studied, driving the relationship of social capital's cognitive dimension with innovation (Ortiz *et al.*, 2021; Rodrigo-Alarcón *et al.*, 2018). We propose the inclusion of PACAP and the following hypothesis.

H2. The potential absorption capacity mediates the link between cognitive social capital and new product performance in tourism firms.

2.4 Innovation capacity

Innovation has become increasingly crucial for organizational performance, enabling firms to adapt to environmental changes (Novillo-Villegas *et al.*, 2022). It has been defined as the organizational capability to utilize resources to generate new ideas manifested in products, services and processes. Despite the attention innovation has garnered, there is no consensus on its determinants (Boukamel *et al.*, 2019). Romijn and Albaladejo (2002) suggest that a high level of innovative capacity drives the development and enhancement of current products and processes. Furthermore, firms harness their resources by transforming them into innovative products through innovativeness (Najafi-Tavani *et al.*, 2018). Previous studies have demonstrated that innovativeness is reflected in commercial strategies introducing new products to customers, promoting their acceptance and making them successful (Sun and Lau, 2020; Zirena-Bejarano *et al.*, 2023a, b).

Research conducted on IC has revealed that social capital positively influences innovation, which in turn impacts business performance positively (Hilmawati *et al.*, 2023;

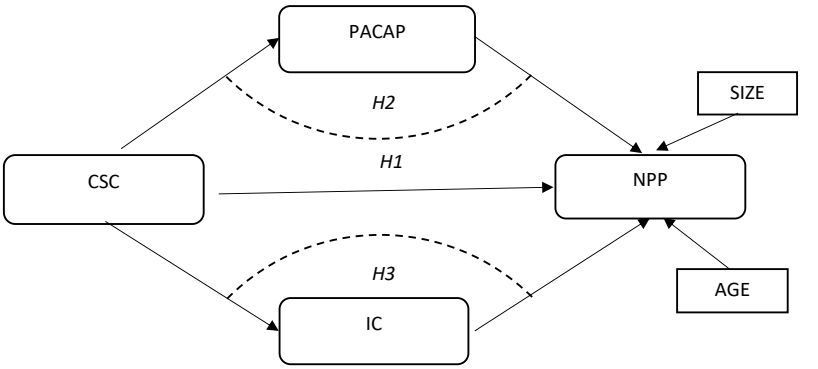
Zirena-Bejarano *et al.*, 2023a, b). Martín-de Castro *et al.* (2013) also revealed a positive moderating effect of innovation between human capital and innovative products, suggesting that firms with enhanced IC achieve superior results in their innovative products. Concerning the determinants of innovativeness, Eduardo *et al.* (2021) and Pham *et al.* (2022) propose and demonstrate that social capital positively affects the inclination for innovation, suggesting that better management of social capital will boost IC (García-Villaverde *et al.*, 2021). Social relations improve the competencies of firms, influencing their performance (Al-Shami *et al.*, 2021). On the other hand, it is suggested to examine the influence of IC on the NPP. Figure 1, shows the integral model. However, there is a reported lack of research in the tourism sector, opening the way to analyze this relationship in tourism firms in developing countries. We propose the following hypothesis.

H3. Innovation capacity mediates the link between cognitive social capital and new product performance in tourism firms.

3. Methods

3.1 Research design

This research is a quantitative and causal study. It was developed to deepen the understanding of the variables CSC and NPP, including PACAP and IC as mediating variables, applying structural equations in a sample of 300 companies in the tourism sector.



Note(s):

Constructs studied

CSC: Cognitive social capital

NPP: New Product Performance

PACAP: Potential absorptive capacity

IC: Innovation capacity

Control Variables

Size: Determined by worker number

Age: Determined by the difference between current year and the company creation year

the dashed line represents the mediation relationship between CSC and NPP

Source(s): Authors' own elaboration

Figure 1.
Theoretical model

3.2 Research instrument

The variables were measured through scales valid in the literature, which were adapted to the language and context of the study population. A seven-point Likert-type scale was used. Questions are shown in Appendix.

NPP: It was measured from three items: innovation, profitability and sales, which were adapted from Carbonell and Rodríguez-Escudero (2016) and Zhang *et al.* (2009). These items were taken considering that studies suggest that the NPP can be measured based on these indicators.

CSC: They are determined by the shared goals dimension and the scale proposed by Ye (2005), which has been applied and validated by other studies (Molina-Morales *et al.*, 2014), composed of six items.

IC: The capacity for innovation is defined as the ability to create new products from existing knowledge, motivated by the changes that occur in the market. As in the previous case, several scales were analyzed, selecting the one proposed by Kogut and Zander (1992); this scale was also adapted and validated by Akman and Yilmaz (2008).

PACAP: From the review of empirical works, the scale proposed by Flatten *et al.* (2011) was taken with seven elements.

Control variables: In the study, the age of the company has been taken as control variables, taking other studies that support the age could reflect experience (Lee, 2008), determined by the difference between the current year and the year of creation of the company's business. The other variable introduced in the study is company size, determined by the number of workers, indicating that companies with more than one worker have been considered.

3.3 Population and sample

The empirical research has been developed with information from businesses in the tourism sector of the Arequipa region, Perú, a country considered in development, contributing 3.66% to the gross domestic product (BADATUR, 2019). Receptive tourism in the region saw growth from 2.3 to 4.4 million tourists between 2010 and 2019, resulting in increased foreign exchange earnings, reaching 4,784 million dollars in 2019 (Banco Interamericano de Desarrollo, 2021). Along the same lines, Arequipa is the country's second-most important city, showing figures of growth in 2019 of 8.5% of visitors. However, the tourist potential of the region generates a favorable context for the application of the proposed model.

The research was conducted with data obtained from the Superintendencia de Administración Tributaria SUNAT under the guidelines established by the country's transparency law. The information was filtered considering only firms with more than one worker in force as of September 2021, achieving a total of 776 tourism firms as a population. Also, the questionnaire was built according to validated instruments previously published in scientific articles; these were adapted by language and context, initially a pilot of 30 questionnaires was applied and processed to have some previous results. The second step was to verify the relevance of the instrument; the third step was to start the field work with the application of the questionnaire, obtaining the 300 valid questionnaires with a response rate of 38.66% for a confidence level of 95% and $p = q = 0.5$ with a sampling error of 4.43%.

3.4 Data analysis

The research was carried out through the application of a questionnaire sent to the manager of a tourism sector business via the internet, by telephone, and in some cases with a face-to-face visit. The form comprised 21 items: three items measured the NPP variable, six items for the CSC variable, five for IC and seven for PACAP without excluding any item. In addition, they were examined with PLS-SEM, a structural equation modeling technique based on variance (Henseler, 2018). SmartPLS 4.0.8.5 software was used because it seeks to

predict the dependent variable and allows us to observe different causal relationships and include mediators in the model (Sarstedt *et al.*, 2020). Subsequently, the measurement model was designed, evaluating the factor loads of the items; the reliability and validity of the indicators were evaluated, achieving values that allowed the evaluation of the structural model (Hair *et al.*, 2013). The bootstrapping technique was also applied to determine significance (Davison and Hinkley, 1997).

4. Results

4.1 Descriptive results

Table 1 shows the descriptive results of the research and control variables. The descriptive analysis was performed by calculating the mean, standard deviation and correlations. The results are shown in Table 1.

4.2 Evaluation of the measurement model

The indicators are analyzed as reflective because the items are considered a representative sample of the underlying construct and caused by it. Since they have the required reliability, some items could be omitted without changing the meaning of the construct, which could not be done in the case of indicators of a formative construct (Nunnally and Bernstein, 1994). The reliability and validity of the variables were evaluated with a systematic procedure that shows Cronbach's alpha with values exceeding the threshold of 0.70, and then the composite reliability was analyzed, obtaining values also greater than 0.70 established as acceptable (Chin and Dibbern, 2010). The convergent validity presents values higher than 0.50, understanding that the proposed indicators substantially explain the measurement variable (Hair *et al.*, 2013). Also, the Fornell and Lacker criterion was used to determine the discriminant validity; the results are shown in italics, identified on the diagonal superior to the rest of the values of the spine to facilitate their interpretation. Likewise, the Heterotrait-Monotrait (HTMT) ratio is applied, with results greater than those that can be observed in the upper rows mentioned above, verifying that the proposed constructs have right discriminant validity (Henseler, 2018). See Table 2.

4.2.1 Structural model evaluation. 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 (Fuller *et al.*, 2016). The result obtained from Harman's test was 38.56%, a value that is below 50.00%, indicating that CMB is not present.

The present research proposes two models. The first model analyzes the direct effect between CSC and NPP, and the second model proposes the integration of PACAP and IC as mediating variables.

	Mean	SD	1	2	3	4	5	6
1. Age	11.730	12.586	1					
2. Size	5.590	6.088	0.222**	1				
3. CSC	4.838	1.143	0.070	0.036	1			
4 PACAP	5.031	0.864	0.069	0.131*	0.525**	1		
5. IC	5.322	1.013	0.101	0.104	0.465**	0.548**	1	
6. NPP	25.561	8.320	0.066	0.136*	0.394**	0.417**	0.385**	1

Table 1.
Descriptive analysis and correlation of constructs

Note(s): **The correlation is significant at the 0.01 level (bilateral). *Correlation is significant at the 0.05 level (bilateral)
Source(s): Authors' own elaboration

4.2.2 Structural model 1: influence of CSC on NPP. Table 3 shows the data from the evaluation of the direct relationships of the proposed model. At first, the analysis of the direct relationship between CSC and NPP is carried out, showing $\beta = 0.420$, $p < 0.001$, which shows a positive and significant effect of CSC on NPP, obtaining an $R^2 = 0.176$***. These data allow us to accept hypothesis H1. The results are shown in Table 3.

4.2.3 Structural model 2. This model analyzes the strength and significance of the beta and R^2 coefficients of the NPP variable. Hypothesis H2 posits that the strength of CSC and the NPP is mediated by PACAP. Hypothesis H3 suggests that the strength of CSC and NPP is mediated by IC. To test the mediation hypothesis, four conditions must be fulfilled (Baron and Kenny, 1986).

The first condition indicates that there must be a significant relationship between the independent variable CSC and the dependent variable NPP (Table 4); it shows a positive and significant effect with $\beta = 0.420$, $p < 0.001$. The second condition indicates that there must be a relationship between the independent variable CSC and the mediating variables PACAP and IC (Table 4). This condition is fulfilled, showing a positive and significant effect for PACAP $\beta = 0.528$, $p < 0.001$, and IC with $\beta = 0.448$, $p < 0.001$. The third condition indicates that there must be a relationship between the mediating variable and the dependent variable.

	Internal consistency		Convergent validity	Discriminant validity: Fornell and Larcker and HTMT			
	Cronbach's alpha	Composite reliability	AVE	1	2	3	4
1. CSC	0.923	0.940	0.724	*0.851*	0.586	0.483	0.471
2. PACAP	0.855	0.891	0.541	0.528	*0.735*	0.621	0.526
3. IC	0.921	0.940	0.760	0.448	0.547	*0.872*	0.429
4. NPP	0.830	0.898	0.745	0.415	0.456	0.385	*0.863*

Source(s): Authors' own elaboration

Table 2. Analysis of reliability, convergent and discriminant validity of the constructs

Relationship	Direct effect	Standard deviation	*T*-statistics (|O/STDEV|)	R^2	Significance	Results
H1: CSC→NPP	0.420	0.044	9.432	0.176***	0.000***	Accepted

Note(s): **** ≤ 0.001
Source(s): Authors' own elaboration

Table 3. Analysis of the direct relationship model

Relations	Direct effects	95% confidence interval	R^2 adj	Significance ($p < 0.05$)
CSC → PACAP	0.528	0.454–0.605		0.000***
PACAP → NPP	0.264	0.131–0.393		0.000***
CSC → IC	0.448	0.363–0.529		0.000***
IC → NPP	0.149	0.033–0.263		0.000***
CSC → NPP	0.212	0.099–0.318	0.253	0.000***

Note(s): ***sig ≤ 0.001
Source(s): Authors' own elaboration

Table 4. Analysis of the relationship between variables

This condition is fulfilled since the results of the PACAP variables show a $\beta = 0.264$, $p < 0.001$, and IC with a $\beta = 0.149$, $p < 0.001$. The fourth condition indicates that when the independent, mediating and dependent variables are integrated into the same model, the effect of the independent variable on the dependent variable must be substantially reduced, as shown in Table 4. Hypothesis H1 establishes an initial effect of the CSC variable with NPP with $\beta = 0.420$ (Table 3), and when the mediating variables PACAP and IC are incorporated, we have a $\beta = 0.212$, satisfying the fourth condition proposed by Baron and Kenny (1986). The mediating effect for H2 is 0.139***, t-value 3.628, $p < 0.001$ and for H3, it is 0.066**, t-value 2.441, $p < 0.015$; these results are shown in Table 5. In this way, H2 and H3 are accepted. According to the analysis procedure suggested by Zhao *et al.* (2010) and Nitzl *et al.* (2016), a complementary partial mediation is observed. This is evident as the effect of CSC on NPP does not completely vanish upon the introduction of the mediating variables PACAP and IC. This inclusion leads to a notable enhancement in the R^2, indicating a significant improvement in the model. Regarding the control variables, size and age, it can be observed that the size variable has a $\beta = -0.015$ ns and age with $\beta = 0.035$ ns, indicating that they do not contribute to the model. The results are shown in Tables 4 and 5.

4.3 Evaluation of predictive validity

To measure the predictive power of the model using the PLS predict technique, Q^2 was evaluated, obtaining results greater than 0. Taking into account the symmetry of the prediction error distribution, RSME was used to evaluate the predictive power, resulting in indicators showing smaller prediction errors than LM, indicating a predictive power (Shmueli *et al.*, 2019). Table 6 and Figure 2 show the results obtained.

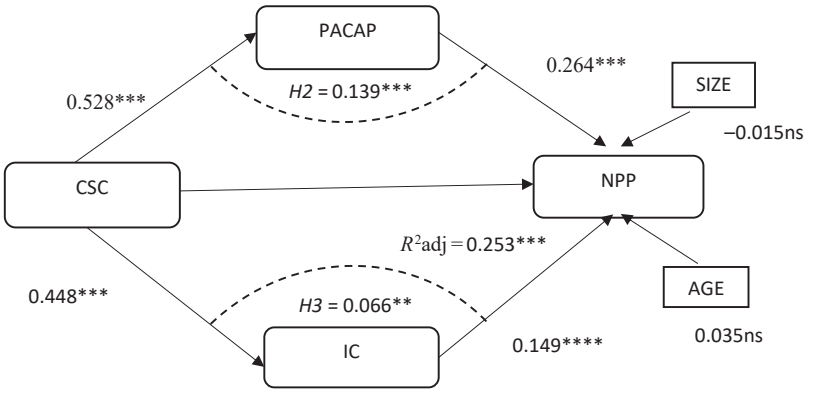
Table 5. Mediation analysis

	Beta	Standard deviation	*T*-statistics (|O/STDEV|)	Significance	Results
H2: CSC → PACAP → NPP	0.139	0.038	3.628	0.000***	Accepted
H3: CSC → IC → NPP	0.066	0.027	2.441	0.015**	Accepted

Note(s): **sig ≤ 0.01; ***sig ≤ 0.001
Source(s): Authors' own elaboration

Table 6. Results of prediction analysis

	Q^2 predict	PLS-SEM_RMSE	LM_RMSE	PLS-DEM-LM
Cabsor1	0.126	1.345	1.367	−0.022
Cabsor2	0.191	1.206	1.232	−0.026
Cabsor3	0.193	1.098	1.112	−0.014
Cabsor4	0.116	0.980	0.987	−0.007
Cabsor5	0.114	1.017	1.030	−0.013
Cabsor6	0.164	0.967	1.000	−0.033
Cabsor7	0.078	1.138	1.159	−0.021
CInno8	0.170	1.000	1.021	−0.021
CInno9	0.136	0.987	1.011	−0.024
CInno10	0.160	1.061	1.081	−0.020
CInno11	0.120	1.184	1.186	−0.002
Cinno12	0.139	1.159	1.199	−0.040
Npp1	0.099	9.495	9.770	−0.275
Npp2	0.103	8.767	8.840	−0.073
Npp3	0.136	8.999	9.111	−0.112



Source(s): Authors' own elaboration

Figure 2.
Model results

5. Conclusions and implications

In the present research, the effect of CSC on NPP is studied. Although there is evidence of its association (Cendana, 2021; Zhou *et al.*, 2022), the results are not consistent, necessitating the analysis of other factors that improve the performance of new products. In line with these demands, the research results fill the existing gap, demonstrating that PACAP and IC have a positive and significant effect on the relationship between CSC and NPP in the context of the tourism sector in developing economies. It is essential for the company to have information about what is happening in the environment (Najafi-Tavani *et al.*, 2018; Wang and Steiner, 2020). Also, innovativeness plays an important role as a bridge for shared interests to materialize into NPP (Zheir *et al.*, 2018; Zirena-Bejarano *et al.*, 2023a, b). The findings indicate that the trust generated by the shared culture and shared goals leads to the detection and transfer of information that becomes viable in results through innovative products, confirming what was stated by Zhou *et al.* (2022) and El Manzani *et al.* (2019). The coincidence between the members of the organization ensures effective communication, facilitating the exchange of knowledge necessary to innovate products (Shang *et al.*, 2018). However, overconfidence produces isolation, a negative effect that generates blockage of external information, inertia or limitation to create new knowledge (García-Villaverde *et al.*, 2018b). Regarding the tourism sector, it is configured as a key factor in creating value by integrating tourism agents; interests are reconciled by sharing them in the network of contacts.

In accordance with the stated objectives, this article primarily focuses on the PACAP spillover effect generated between CSC and NPP, emphasizing the crucial role of knowledge acquisition in enhancing NPP in tourism companies. In that sense, the main contribution of this research lies in recognizing the significance of companies enriching themselves with new information and knowledge obtained from the environment regarding the evolving expectations of visitors. This information is leveraged by the organization, flowing seamlessly within the network facilitated by shared interests, values and company policies. Likewise, both CSC and PACAP establish an environment conducive to developing innovative products that meet expectations successfully (García-Villaverde *et al.*, 2018b). Second, the indirect effect of IC on the relationship between CSC and NPP is analyzed, revealing that IC is promoted through CSC. The collaborative atmosphere and shared objectives within the network, along with adherence to organizational norms, facilitate the development of IC and drive the creation of new products anticipated to be well received by tourists. Furthermore, upon separate analysis,

it is evident that PACAP has a more relevant mediating effect. This underscores a stronger effect on NPPs aligning with the findings proposed by Lyu *et al.* (2022) when there is a combination of CSC, PACAP and IC in an integral mediation model, and it is even observed that the interests shared by the members of the networks facilitate the flow of information and knowledge to achieve better NPP.

The theoretical contribution of this work is to confirm the hypothesis that CSC leads to NPP through PACAP and IC. The theoretical contribution links the social capital theory of Nahapiet and Goshal (1998), focusing on cognitive capital, with the theory of dynamic capabilities (Teece *et al.*, 1997), focusing on PACAP and IC, to understand the complexity of NPP (Griffin and Page, 1996) in an integral model that has not been studied so far. The variables have been analyzed in direct relationships in previous studies in the context of the tourism sector in developing countries. Therefore, it is considered a suitable environment for the application of the study due to the deep-rooted cultural identity of the members of organizations in this region. The results demonstrated the existence of a partial mediation that shows that acquisition, assimilation and CI are the intermediate links between CSC and the NPP. The shared interests of network actors leverage information, knowledge and skill to create innovative products and achieve better product performance.

In terms of practical contribution, company managers should encourage the members of the organizations to share values and culture without this meaning isolation from what is happening in the environment, as new information and knowledge are needed as an input for innovation to create products that meet the needs of tourists. First, it is proposed to create appropriate environments where network members interact and strengthen links based on common interests in order to develop channels for the transmission of information that will serve as input for the creation of innovative and successful products. Second, accelerate the process of acquisition and assimilation of knowledge through digital platforms, technological applications can offer endless opportunities to share information, to know the market demand and to offer tourism products and services (ticket sales, hotel reservations, restaurants, even a virtual tour based on immersive virtual reality). Third, foster the development of innovation capacity by organizing periodic meetings where network actors propose creative ideas to improve, transform or create new products that may be of interest to tourism visitors.

Although every possible precaution has been taken in the development of this study, there are certain limitations that should be mentioned. In the first place, it should be taken into account that this is cross-sectional research since the information was collected at a specific time and there is no longitudinal information to contrast the study hypotheses; it should also be mentioned that the information corresponds only to companies in the tourism sector in the Arequipa-Peru region, which could limit the generalization of the results. On the other hand, the probability of bias in the application of the scales and measurements used cannot be eliminated, and it should be clarified that scales validated in previous studies have been chosen. Finally, this article suggests some future lines of research, such as analyzing the effect of radical or incremental innovation on the performance of new products as well as analyzing the effect of market dynamism on the performance of new products, to identify which ones generate better results; it would also be important to delve into studies in other regions to compare and create a map of results.

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Appendix
Questionnaire

Table A1. New product performance

Importance of the number of product or service innovations, level of importance for your company	Satisfaction of the number of product or service innovations, level of importance for your company
Importance of the profitability of new products or services, level of importance for your company	Satisfaction of the profitability of the new products or services, level of importance for your company
Importance of sales of new products or services, level of importance for your company	Satisfaction of sales of new products or services, level of importance for your company

Source(s): Carbonell and Rodríguez-Escudero (2016), Zhang *et al.* (2009)

Table A2. Cognitive social capital

We share the same ambitions and visions as our contacts
Our employees are motivated to seek common goals and missions with our contacts
We share goals and objectives with our contacts
We understand the strategies and needs of our contacts
Our employees and those of our contacts have positive attitudes toward cooperation
Our company and our contacts agree on how to carry out working relationships

Source(s): Ye (2005)

Table A3. Potential absorption capacity

We seek relevant information about our sector on a daily basis
Our managers motivate employees to use the sources of information in our sector
Our managers expect employees to detect information outside our industry
In our company, ideas and concepts are communicated between departments
Our managers emphasize cross-departmental support to solve problems
In our company there is a rapid flow of information, for example, if one department obtains important information, it immediately communicates it
Our managers ask for regular interdepartmental meetings to exchange new developments, problems and achievements

Source(s): Flatten *et al.* (2011)

Table A4. Innovation capacity

We have a business culture that promotes innovation
We are able to use knowledge from various sources to develop products/services
We are able to quickly identify market changes and apply them to our own products, services and processes
Our employees are able to contribute to activities such as product/service development, improvement of the innovation process and development of new ideas
We are capable of evaluating new ideas coming from clients, suppliers, etc. in order to have them

Source(s): Kogut and Zander (1992)