THE EFFECT OF HUMAN CAPITAL, SOCIAL CAPITAL, OPEN INNOVATION ON TOURISM ENTERPRISE PERFORMANCE IN INDONESIA

a Sri Dwi Ari Ambarwati, b Mohamad Irhas Effendi, c Agus Ristono, d Dyah Sugandini

ABSTRACT

Objective: This study aims to analyze tourism business performance influenced by human capital, social capital and open innovation. The problem approach in this research uses a supply-side approach regarding how tourism actors use social networks and innovation to build social capital, which impacts increasing company performance.

Theoretical framework: This research analyzes tourism performance after the pandemic by integrating social capital and innovation theories (Shi et al., 2020; Ogink et al., 2023). The concept of tourism enterprise performance has received widespread attention among researchers and management practitioners for two decades, as evidenced by various research papers and concept developments that lead the tourism industry to face problems and changes in tourist expectations regarding human capital readiness, social capital and open innovation. However, There is still much to investigate and learn about. This researcher further tested the social capital approach from the tourism service provider side, which still requires further testing.

Method: This research explores the application of human capital, social capital and open innovation to government officials and tourism actors in Yogyakarta, Indonesia. Yogyakarta was chosen as the research location because Yogyakarta is the second tourist destination after Bali for tourist visits to Indonesia. The sample used in this research was 353 tourism SMEs. Data was collected through questionnaires distributed directly to tourism managers. The data analysis tool uses PLS-SEM structural equations.

Result: The analysis results show that the Tourism Enterprise Performance (TEP) model is acceptable, and not all proposed hypotheses have a significant positive effect.

Conclusion: Human capital has a positive influence on social capital, and social capital has a positive influence on open innovation and TEP. However, the influence of social capital on open innovation and the influence of open innovation on Tourism Enterprise Performance are not significant. Future research should analyze several human capital, social capital, open innovation and TEP variables separately for each type of tourist destination. This research can create better generalizations regarding TEP in each tourist destination.

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The Effect of Human Capital, Social Capital, Open Innovation on Tourism Enterprise Performance in Indonesia

Originality/Value: The results indicate that the development of literature on human capital, social capital and open innovation has a substantial impact on tourism business performance and the development of tourism entrepreneurship knowledge

Keywords: human capital, social capital, open innovation, tourism performance.

Received: 14/08/2023
Accepted: 13/11/2023
DOI: https://doi.org/10.55908/sdgs.v11i11.2184

O EFEITO DO CAPITAL HUMANO, CAPITAL SOCIAL, INOVAÇÃO ABERTA NO DESEMPENHO EMPRESARIAL DO TURISMO NA INDONÉSIA

RESUMO

Objetivo: Este estudo tem como objetivo analisar o desempenho dos negócios turísticos influenciados pelo capital humano, capital social e inovação aberta. A abordagem do problema nesta investigação utiliza uma abordagem do lado da oferta relativamente à forma como os actores do turismo utilizam as redes sociais e a inovação para construir capital social, o que tem impacto no aumento do desempenho das empresas.

Enquadramento teórico: Esta investigação analisa o desempenho do turismo após a pandemia integrando capital social e teorias de inovação (Shi et al., 2020; Ogink et al., 2023). O conceito de desempenho de empresa turística tem recebido ampla atenção entre investigadores e profissionais de gestão durante duas décadas, como evidenciado por vários artigos de investigação e desenvolvimentos de conceitos que levam a indústria do turismo a enfrentar problemas e mudanças nas expectativas dos turistas em relação à prontidão do capital humano, capital social e abertura. Inovação. No entanto, ainda há muito para investigar e aprender. Este investigador testou ainda a abordagem do capital social do lado do prestador de serviços turísticos, o que ainda requer mais testes.

Método: Esta pesquisa explora a aplicação do capital humano, do capital social e da inovação aberta a funcionários governamentais e atores do turismo em Yogyakarta, na Indonésia. Yogyakarta foi escolhido como local de pesquisa porque Yogyakarta é o segundo destino turístico depois de Bali para visitas turísticas à Indonésia. A amostra utilizada nesta investigação foi de 353 PME do turismo. Os dados foram coletados por meio de questionários distribuídos diretamente aos gestores de turismo. A ferramenta de análise de dados utiliza equações estruturais PLS-SEM.

Resultado: Os resultados da análise mostram que o modelo de Desempenho das Empresas Turísticas (TEP) é aceitável, e nem todas as hipóteses propostas têm um efeito positivo significativo.

Conclusão: O capital humano tem uma influência positiva no capital social, e o capital social tem uma influência positiva na inovação aberta e no TEP. No entanto, a influência do capital social na inovação aberta e a influência da inovação aberta no desempenho das empresas turísticas não são significativas. A investigação futura deverá analisar diversas variáveis de capital humano, capital social, inovação aberta e Tep separadamente para cada tipo de destino turístico. Esta pesquisa pode criar melhores generalizações sobre o TEP em cada destino turístico.

Originalidade/Valor: Os resultados indicam que o desenvolvimento da literatura sobre capital humano, capital social e inovação aberta tem um impacto substancial no desempenho das empresas turísticas e no desenvolvimento do conhecimento do empreendedorismo turístico.
1 INTRODUCTION

Tourism and the creative economy are the sectors most negatively affected by the COVID-19 pandemic. Even though it has returned to life since the end of 2021, the COVID-19 pandemic has changed behavior towards a new normal, which requires the tourism sector and the creative economy to adapt quickly. The paradigm of changing behavior towards a new normal also requires SMEs to play a significant role in the tourism and creative economy sectors to reformulate business strategies quickly, even with limited resources. The tourism industry has started to stretch since the Covid-19 case has improved in Indonesia. Several policies have encouraged the tourism industry's recovery by opening domestic tourism activities. Indonesia's tourism ranking has increased rapidly in 2022. In just 18 months, Indonesia's tourism ranking has shot up to 32nd from 44th in 2021, above Malaysia, Thailand, and Vietnam. Annamalah et al. (2023) stated that tourism receipts in Southeast Asia fell by 80% each during the COVID-19 pandemic. After the pandemic, income from the tourism sector has increased in ASEAN countries due to better transformation of the tourism economy and creativity.

Each of these countries in ASEAN must be able to secure its tourist market by building regional trust to stimulate demand that promotes more comprehensive communications. Post-pandemic tourism policies and strategies are relevant compared to pre-pandemic studies, which are no longer suitable for the current environment because they have different concepts (Prinanda, 2022). Collaboration between the government and tourism industry players is crucial in strengthening the tourism sector. Collaboration between countries can also enhance the recovery of the tourism sector. The leading players in the tourism sector are residents, local businesses, media, workers, government, competitors, tourists, business organizations, activists, and tourism developers (Annamalah et al., 2023). The tourism industry involves products and services from a wide range of businesses, namely from SMEs to large organizations, and SMEs play an essential role in ensuring the development of the tourism industry. Tourism business networks or social capital and other players are also crucial for the survival and growth of tourism. Tourism businesses often have low human capital, which is indicated by managers' lack of knowledge and skills in innovation to promote sustainable tourism (Jooss et al., 2022). Divisekera and Nguyen (2018) state that developing countries often
have limited resources and inadequate support systems, thus preventing companies from facing innovation risks.

This research is based on the social capital theory in predicting tourism enterprise performance and analyzing the role of open innovation. The social capital perspective explains the innovation process in user behavior in a community (Nahapiet and Ghoshal, 1998). Tour operators can create strong bonds with each other and increase their social capital through involvement in a community. This study examines the influence of human capital and social capital on the Indonesian tourism sector and predicts the impact of social capital on the performance of the tourism sector. Besides that, the influence of open innovation in adopting technology in the tourism industry is also analyzed about TEP. This study discusses several issues related to tourism performance in Indonesia.

The first issue is related to the influence of human capital on tourism performance. Kožić (2019) shows that tourism development can lead to a decrease in human capital. The intense development of tourism has significantly influenced the desire to learn from young people and led to the transformation of the regional economic structure. This creates a trade-off between the potential for rapid but uncontrolled tourism development, a decrease in the quality of resources, and opportunities for developing several sectors of the national economy which are slower but controlled. On the other hand, Lee & Hallak (2020) show that human social can improve tourism performance by achieving good social capital. Lee & Hallak (2020) also show that increasing social capital through professional, associative, and institutional ties can support the HR capabilities of tourism entrepreneurs to increase sales revenue (Kasavana et al., 2010).

The second issue is related to the influence of social capital on tourism business performance. Empirical research has found that an entrepreneur's professional and social networks facilitate access to resources that influence business success, such as market information, innovation, and finance. Connections between professionalism and social networks can form entrepreneurial social capital from a network of relationships (Nahapiet and Ghoshal, 1998). Apart from physical connections with family, friends, colleagues, suppliers, and entrepreneurs, entrepreneurs can also build social capital through social networking platforms such as Facebook, LinkedIn, and Twitter (Lee & Hallack, 2020). Social bonds created through online and offline media present different nuances of relationships and impacts on tourism performance Ozane et al., (2022). If a person's social capital is low, it will lead to a conflict of values and a low level of trust.
Social capital is essential for the success of a business because it allows for new opportunities, alliances between companies, access to lines of credit, access to potential employees, and sources of innovation. The third issue is related to open innovation in the performance of the tourism business. Lu and Chesbrough (2022) present ambiguous conclusions regarding the effectiveness of open innovation on tourism business performance. Lu and Chesbrough (2022) state that although open innovation is often in line with improving financial performance, the results in detail are still ambiguous. This is possible due to differences in the application of open innovation in the tourism business. In conclusion, there is no universal set of practices to ensure the effectiveness of open innovation.

Based on several existing research gap issues, this study aims to analyze the performance of tourism businesses that are influenced by human capital, social capital, and open innovation. The problem approach in this study uses a supply-side approach to how tourism actors use social networks and innovation to build social capital, which impacts increasing company performance. The novelty of this research is related to the development of literature on human capital, social capital, and open innovation on tourism business performance and the development of tourism entrepreneurship science. The novelty of this research is related to (1) The use of the social capital approach from the supply side. Previous research results mainly tested social capital from the demand side, which focused on the consumer perspective. This researcher further examines the social capital approach from the side of tourism service providers. (2) Analyze the relationship between human capital, social capital, and open innovation together on the tourism business performance. (3) Examine how MSME tourism actors utilize social networks to build social capital that impacts company performance.

2 THEORETICAL REFERENTIAL

2.1 HUMAN CAPITAL, AND SOCIAL CAPITAL

Human capital is the potential humans have that must be trained, developed, and part of social capital to create mutual respect and manage teams well. Human capital includes the organizational capacity to create employees with the skills, values, mindset, capabilities, and a complete understanding of how the systems within the organization can work adequately (Annamalah et al., 2023). Human capital is a crucial component in achieving sustainability and global market competitiveness. The importance of workers'
knowledge, competencies, and skills is growing because of the apparent differentiating aspects of the goods and services provided by the tourism sector (Črnjar, 2018; Xie, 2021).

Human Capital is the organization's main asset: employee skills, knowledge, attitude, and commitment. The human capital construct is the primary source of strategic renewal and innovation because it relates to employees' knowledge, skills, talents, and experience. Innovation is the process of creating new ideas. The more innovations a company can generate and implement, the greater its ability to be creative. An organization can benefit from its human capital, an element of social capital (Abbas et al., 2022). Social capital increases the capacity of employees to work together and learn. Current employees' knowledge, skills, abilities, and experience generate value and can solve business challenges (Salehi et al., 2023). Social capital is the sum of actual and potential resources available through a network of relationships owned by individuals or social units (Leckel et al., 2022). Social capital is defined as actual and potential resources available through a network of actor relationships with others. Social capital is essential in entrepreneurship because it provides access to financial resources, skilled labor, and information. Social capital refers to the level of togetherness of a group or community in understanding and sharing information. Zhang et al. (2022) stated that social capital is an essential component that contributes to company risk, work environment, and business performance.

H1: Human capital has an impact on social capital
H2: Social Capital has an impact on performance

The concept of social capital states that information can be developed and utilized by combining knowledge from various parties and increasing competitive advantage (Leckel et al., 2022). There is a positive relationship between social capital, business work environment, and business performance. Social capital influences strategic innovation that affects performance and competitive advantage. Companies must grow creativity from open innovation networks to improve their business performance. Acquiring information and creating innovative knowledge depends on society's complex coordination of human and social factors (Utama et al., 2023). Social network linkages in companies enhance open innovation and social capital structures. Social capital, in general, can provide access to start-up financing, guidance on business prospects, access to markets, and a trained workforce (Annamalah et al., 2023). Social capital plays three
critical roles: information exchange, activity coordination, and group decision-making. Successful tourism growth depends on each of the three responsibilities. Exchange and innovation activities are made possible because of social capital. After social capital is built, the innovation process can be built to improve operations. Some of the results can be used to measure the effect of social capital on company performance.

H3: Social capital has an impact on open innovation

2.2 TOURISM ENTERPRISE PERFORMANCE AND OPEN INNOVATION

The performance of tourism companies is essential to drive the success of the tourism industry and the economy (Widjaja et al., 2023). Existing literature on performance in the tourism industry focuses on international tourism demand as measured by international tourism income and domestic tourism demand as measured by domestic tourism income (Gao et al., 2019). According to Lee & Hallak (2020), the performance of tourism companies can be observed from the promising prospects of employee performance, sales revenue, and net profit. Melo et al. (2023) measure the performance of SMEs by considering aspects related to economic performance.

The concept of open innovation has enjoyed significant popularity among researchers and management practitioners over the past two decades, as evidenced by numerous research papers and case studies. The progressive development of the concept also applies to the tourism industry, which is facing changing tourist problems and expectations. Implementing innovative solutions at the company level and considering all the tourist destination's stakeholders is necessary. The concept of open innovation (OI) was first introduced by Chesbrough (2003) to describe the process of distributing organizational innovation based on a consciously managed flow of knowledge across organizational boundaries to accelerate internal innovation based on external knowledge (Giotis & Papadionysiou, 2022; El Maalouf & Bahemia, 2023). Open innovation can be classified into open-in and open-out (Shi et al., 2020). Inbound open innovation (IOI) absorbs external knowledge through business networks and collaborates with other external entities (El Maalouf & Bahemia, 2023). Open-out innovation (OOI) involves transferring internal knowledge or technology to other technology fields, companies, or industries (Shi et al., 2020; Ogink et al., 2023).

Lu and Chesbrough (2022), in the context of the effectiveness of open innovation, state that companies with a level of openness to innovation often vary in improving
financial performance. Yun et al. (2022) developed a conceptual model related to the
dynamics of open innovation to show the effect of open innovation on the performance
of the tourism business. Abhari and McGuckin (2023) analyze the failure factors of open
innovation at three levels: strategy, process, and community. The success of open
innovation depends on how the innovation is designed and implemented in business
strategy, operations, and technology. Mastrocinque et al. (2022) analyzed open
innovation under conditions of uncertainty and found that open innovation impacts
tourism business activities.

H4: Open innovation has an impact on performance

3 METHODOLOGY

This research is deductive and has a positivist paradigm. This study adheres to a
positivist paradigm because it uses quantitative methods, surveys, and structured
questionnaires. Researchers also conducted an exploratory study by conducting in-depth
interviews with the government and tourism SME managers. This exploratory study aims
to justify the performance of Yogyakarta tourism and the strategies implemented by both
the government and tourism business managers. This study used a sample of 353 tourism
SMEs in Yogyakarta, Indonesia, which included 205 tourist villages and 148 new tours.
The survey was conducted from May 2023 to July 2023. This study used a research
questionnaire given directly to owners, executives who lead the tourism sector, and
managers of tourism SMEs. The research instrument was made using a five-point Likert
scale. After the survey instrument was developed, a pre-test was carried out to determine
the feasibility and suitability of the questionnaire. The pre-test was carried out after the
questionnaire was designed to ensure that the intended audience could understand the
questions asked in the questionnaire. The data analysis technique uses a structural
equation model, namely PLS-SEM, one of the most commonly used methods in
management research using the multivariate method (Bougie and Sekaran, 2020; Hair et
al., 2022). SEM helps build models that fit the data by formulating correlations
(covariances) to improve the relationships between variables not observed in multiple
regression analysis (Hair et al., 2020).
4 RESULTS AND DISCUSSION

4.1 CHARACTERISTICS OF RESPONDENTS

This research was conducted on 353 tourism SMEs in the Special Region of Yogyakarta, Indonesia. The number of tourist destinations consists of 205 Community-based tourism and 148 new tours. Yogyakarta is a destination city in great demand by domestic and foreign tourists. The attraction of the Borobudur temple, Prambanan temple, and the Yogyakarta sultanate palace is a magnet that can attract tourists. The Special Region of Yogyakarta is located in the central part of the island of Java, and on the south side, it is directly adjacent to the southern Indonesian sea (Indian Ocean). Its area is 3,185.80 km² consisting of 5 regencies, namely the cities of Jogyakarta, Sleman, Bantul, Kulon Progo, and Gunung Kidul. The Special Region of Yogyakarta has 78 sub-districts consisting of 438 sub-districts and villages. The characteristics of the respondents in this study are as follows. In March 2023, 5,017 foreign tourists visited the Special Region of Yogyakarta. This study uses 25% of cultural tourism managers, 20% marine tourism, 10% educational tourism, 25% natural tourism, and 20% particular interest tourism. Managed tourism has been operating for at least five years. The monthly turnover of these tourism SMEs is at least 50 million Rupiah per month.

4.2 CHARACTERISTICS OF RESEARCH DATA

The average human capital skills is 3.56, Social capital is 3.723, open innovation is 3.3466, and average performance is 3.613. This value indicates that each tourism manager considers the capabilities of human capital, social capital, and social capital in a suitable category, although not optimal. Tourism SMEs in Indonesia, especially in the Special Region of Yogyakarta, are still trying to improve all of these variables after the impact of Covid-19 paralyzed the tourism sector.

4.3 THE RESULTS OF TESTING THE VALIDITY AND RELIABILITY

The measurement model is assessed using reliability and validity. There are two types of validity in PLS-SEM: convergent and discriminant. Convergent validity is observed from the AVE (Average Variance Extracted) value with a minimum criterion of 0.5 and expected cross-loading value > 0.7. Based on these minimal criteria, several instruments were excluded from the model, namely SC3, OI1, TEP1, and TEP2. The AVE
value, Cronbach alpha value, and Composite Reliability after eliminating several instruments can be seen in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
<th>rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Capital</td>
<td>0.824</td>
<td>0.834</td>
<td>0.876</td>
<td>0.586</td>
</tr>
<tr>
<td>Social Capital</td>
<td>0.759</td>
<td>0.759</td>
<td>0.847</td>
<td>0.581</td>
</tr>
<tr>
<td>Open Innovation</td>
<td>0.845</td>
<td>0.856</td>
<td>0.895</td>
<td>0.680</td>
</tr>
<tr>
<td>Tourism Enterprise Performance</td>
<td>0.868</td>
<td>0.875</td>
<td>0.919</td>
<td>0.791</td>
</tr>
</tbody>
</table>

Criteria to justify internal consistency measurement with Cronbach's Alpha value ≥ 0.7 and Internal consistency measurement with Composite Reliability value ≥ 0.6. So, it can be concluded that all the instruments used to measure variables are valid and reliable.

4.4 STRUCTURAL MODEL TESTING RESULTS

The structural model describes the causal relationship between latent variables built based on the theory. Tests on the structural model were carried out to examine the relationship between latent constructs. There are several tests for the structural model, according to Sekaran & Bougie (2016). (1) R-Square on endogenous constructs (2) Effect Size (F Square) to determine the goodness of the model; (3) Prediction relevance (Q square) to determine predictive capability. The results showed that the Gof value = 0.298658 (moderate) and the Q² value = 0.452 (Has a relevant predictive value). The value of R² can be seen in Table 2.

<table>
<thead>
<tr>
<th></th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Innovation</td>
<td>0.255</td>
<td>0.252</td>
</tr>
<tr>
<td>Social Capital</td>
<td>0.338</td>
<td>0.334</td>
</tr>
<tr>
<td>Tourism Enterprise Performance</td>
<td>0.311</td>
<td>0.304</td>
</tr>
</tbody>
</table>

The results of the Estimate for Path Coefficients analysis, which is the value of the path coefficient or the magnitude of the relationship/influence of the latent construct, are shown in Table 3.
Table 3. Mean, STDEV, T-Values, P-Values

| Hypothesis                                      | Original Sample (O) | T Statistics (|O/STDEV|) | P Values | Decisions     |
|------------------------------------------------|---------------------|-----------------|----------|-------------|
| Human Capital → Social Capital                 | 0.581               | 12.323          | 0.000    | H1 supported |
| Social Capital → Open Innovation               | 0.505               | 10.365          | 0.000    | H2 supported |
| Social Capital → Tourism Enterprise Performance| 0.492               | 7.496           | 0.000    | H3 supported |
| Open Innovation → Tourism Enterprise Performance| 0.113               | 1.352           | 0.177    | H4 not supported |

Table 3 shows that not all of the relationships hypothesized in this study are supported. The effect of open innovation on Tourism Enterprise Performance is not significant. This means that open innovation owned by tourism SMEs cannot improve the performance of their tourism SMEs businesses. The Tourism Enterprise Performance structural model can be seen in Figure 1.

Figure 1. Structural Tourism Enterprise Performance Model

4.5 DISCUSSION

An exploratory study conducted in-depth interviews with the government and tourism managers of the Special Region of Yogyakarta shows that in 2022-2027 Yogyakarta has launched three focus areas for its tourism development performance: nature conservation, cultural conservation, and social conservation. Business managers in each destination in all tourism activities are committed to preserving nature, having local wisdom appointed as an attraction, and maintaining social capital so that it does not damage the social order. Technological innovations in forming social capital through networks and tourism ecosystem synergies have been built in the Special Region of Yogyakarta's super-priority tourism areas
to realize sustainable tourism. The Special Region of Yogyakarta is still the favorite tourism destination in Indonesia after Bali. Tourist attractions ranging from natural, culinary, and cultural tourism are of added value to this region. The Yogyakarta tourism sector can contribute 5% of the targeted archipelago tourism movement. The Special Region of Yogyakarta has included the concept of sustainable tourism in its 2022-2027 regional medium-term development plan focusing on natural, cultural, and social conservation. They consider Yogyakarta part of the Borobudur super-priority destination (SPD). The Special Region of Yogyakarta has excellent potential for sustainable tourism with human capital, social capital, and technological prowess. The Special Region of Yogyakarta tourism actors have more skills in managing ecosystems, infrastructure conditions, and commitments to sustainable tourism carried out massively.

The results of other exploratory studies presented in this study are related to innovation in Yogyakarta tourism SMEs showing that most of these tourism businesses apply their innovations to smart tourism. Smart tourism application includes attractions, accessibility, amenities, ancillary services, activities, and available packages. But, unfortunately, innovation in smart is also not entirely applicable. For example, some tourist destinations still focus on buildings, parks, entertainment, performances, cultural attractions, special events, and attraction management. This tour has not been able to implement internet traffic management, mobile applications, information services, and the Internet of Things (IoT).

Regarding smart amenities, not all tourist SMEs have implemented public network facilities, such as hotels and restaurants, public-private networks, and multilingual medical services. (Widjaja et al., 2023 and Utama et al., 2023). In particular interest, tourist destinations such as museums and smart attractions have been implemented. However, several performances require a particular space in the form of a stage that cannot be accessed using information technology innovation. Most museums already have good internet access and utilize information technology to manage visitors and what attractions can be presented at this destination. Using IT, MICE facilities, historical adventurous leisure or recreation, and activity management have been widely applied to the Special Region of Yogyakarta tourism.

This study analyzes the TEP model in tourism SMEs in Indonesia, which shows that the TEP model is acceptable. Human capital in this study is proxied by managerial staff who are intellectually competent, skilled, innovative, knowledgeable, and able to do their job well. Tourism management in the Special Region of Yogyakarta pays excellent attention to
increasing human capital capacity. This is demonstrated by providing space for human resources to improve their abilities through training. This training is regularly held by both the tourism association and the government. This can also be seen from the research results, which show that the human capital capability score is still average and not in perfect condition. The jamming of the tourism economy during the Covid-19 pandemic has forced managers and the government to work hard in managing their human resources so they can adapt to new ways of managing tourism that is smarter. This effort can increase the social capital owned by tourism SMEs because, generally, SMEs have characteristics of weak inter-institutional networks, both horizontally and vertically. This is because SMEs do not have sufficient human capital—for example, they lack education, knowledge, skills, and good communication skills. The results of this study support Črnjar (2018) and Xie (2021), who state that human capital is the potential possessed by humans that supports systems in organizations that run well and can create opportunities for forming social capital. The results of this study also support Abbas et al. (2022) and Salehi et al. (2023), which state that social capital is obtained from employees’ capacity to solve business challenges.

Related to the role of social capital, open innovation, and the performance of tourism SMEs, the results of this study indicate that the effect of social capital on open innovation and TEP is significantly positive. Tourism SMEs in Yogyakarta, Indonesia, show that after the 19 pandemic, many tourism entrepreneurs have been intensively building networks through innovations. Having a network is enough to contribute to the performance of their tourism SMEs. The efforts made by the government in Yogyakarta are through the Visit Jogja application. This application is a government strategy to record, maintain, and develop new regular tourism innovations in Yogyakarta. Innovation for tourism SMEs in Yogyakarta is carried out starting from institutions, products, and processes to marketing. The Yogyakarta provincial government is developing institutional innovation with the Ngayogyakarta Tourism Synergy Program (Siwignyo), process innovation through the implementation of Clean, Health, Safety, and Environment (CHSE), Visiting Jogja and digitizing destination tickets with the Quick Response Code Indonesian Standard (QRIS). Product innovation is carried out by developing attractions, amenities, and access. They then market innovation through joint campaigns for Yogyakarta's new regular tourism, optimization of the Visit Jogja application, digitization of Yogyakarta tourism, and tourism business matching events. The impact of innovation can increase tourist satisfaction with tourism in Yogyakarta. This innovation strategy in the Yogyakarta tourism industry has been implemented and impacts a
gradual increase in tourism activity. Tourists' trust in Yogyakarta has led to an increasing trend of tourism mobility, which has implications for improving tourism performance and economic activity. The results of this study support Lu and Chesbrough (2022), Yun et al. (2022), Abhari & McGuckin (2023), and Mastrocinque et al. (2022), which states that the effectiveness of open innovation improves the performance of tourism businesses, strategies, processes, and communities. Success in mobilizing social capital will impact the ability to create innovative new ideas to be designed and implemented into tourism SMEs’ business, operational and technological strategies.

This research also shows that social capital is measured by: (1) Tourism SMEs members are cooperative and honest. (2) tourism SMEs prioritize public outreach. (3). Personnel in tourism SMEs have skills and cooperation in identifying solutions to difficulties. (4). The company's attitude to take positive steps in maintaining a culture of relations (5) HR teaches each other new things and exchanges knowledge. However, the first instrument used to measure social capital is invalid. This is because the culture of cooperation (gotong-royong) has grown and developed into a moral and national characteristic passed down from generation to generation. Among the diversity of Indonesia, cooperation (gotong-royong) exists to unite people regardless of differences. Thus these items are not fundamental when used as an instrument to measure social capital.

Open innovation in this study has no significant effect on TEP in tourism SMEs. Open innovation is measured by technical collaboration with external parties, ease of understanding technical information, having the power of technological resources, having technical ideas for innovation, and awareness of technology for the benefit of innovation. Related to the item of technical collaboration with external parties, this item does not have good validity, so it must be removed from the model. The study results show that the existing technical collaboration among tourism SMEs in Yogyakarta has not been able to build an open innovation system for these tourism SMEs. Tourism SMEs still partially rely on technology, meaning that the information technology built by SMEs is used to benefit their SMEs. If it is related to performance, open innovation has not been able to influence TEP tourism well. This is because implementing tourism technology transformation to smart tourism in Yogyakarta must deal with sensor technology, big data, open data, Internet of Things (IoT). In addition, it must also be balanced with the predictive and reasoning abilities of the perpetrators. This infrastructure has not been wholly owned and operated by tourism SMEs in Yogyakarta, so it has not been able to improve the performance of tourism SMEs
comprehensively. Tourism performance in this study was observed from tourist satisfaction, market share owned by tourism SMEs, and positive business effectiveness.

5 CONCLUSION

This research can show that the performance of tourism SMEs (TEP) in Yogyakarta has shown promising results. The proposed TEP model is acceptable. (Zenker and Kock, 2020) Shows that many researchers have noted the need for innovation research in tourism, but the reasons for arriving at conclusions are still very varied. Some argue that innovation threatens the unknown future, like other pandemics. Other researchers see that dynamic changes in the environment have encouraged the adoption of new solutions in the tourism industry. For example, tourism businesses increasingly need open innovation systems (Gusakov et al., 2020). However, other researchers oriented toward the tourist market (Szromek et al., 2023) suggest research on innovation adoption in tourism. The results of this study indicate that the application of open innovation in tourism destinations has not been able to increase TEP. TEP can only be increased through increased human capital and social capital. Although the results of this study also show that social capital can also impact better implementation of open innovation.

This research also aims to fill the gap in human capital, social capital, and open innovation affecting TEP. Even though the TEP model is generally accepted, the results of this research show that open innovation has not been able to increase TEP either directly or as a mediation of social capital to TEP. This study has weaknesses related to the presentation of results that do not separate each type of tourist destination and survey results for tourism managers and the government. This study uses these data collectively without analyzing the differences in each data. Future research should analyze the several variables of human capital, social capital, open innovation, and TEP separately for each tourist destination type. This can create a better generalization regarding TEP in each tourist destination. This research does not analyze the performance of tourist destinations from the consumer side, and it is better if future research can involve tourists to analyze their satisfaction with the tourist destinations they visit.
ACKNOWLEDGMENTS

Thank you to the DRTPM of the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia for funding this research through a basic research grant in 2023.

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