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Determinants of Business Productivity in the Tourism Sector of Magelang Regency

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Abstract

The tourism sector's GRDP in Central Java shows continuous growth, but its contribution to the regional GRDP is stagnant or even declining. This indicates that tourism sector growth is not always accompanied by regional economic growth. This study aims to analyze the factors influencing tourism sector business productivity in Magelang Regency in 2025 using a quantile regression approach. The study sample consisted of 65 businesses participating in the Tourism Office's development program. The dependent variable in this study is business productivity, measured by revenue, while the independent variables include initial capital, workforce, education, training, length of business, business legality, certification, community involvement, partnerships, technology and internet use, financial inclusion, and policy support. This study found that the workforce has a positive and significant impact on business productivity at all quantile levels. Conversely, initial capital, length of business, business legality, and financial inclusion have no effect, while the variables of education, certification, internet use, community, and partnerships show different results at each quantile level. These results indicate that increasing tourism business productivity is largely determined by human resource capacity. In this regard, policies aimed at strengthening workforce skills, increasing access to certification, and utilizing digital technology will positively impact business productivity. Programs related to financing, legality, and partnerships need to be evaluated to positively impact tourism businesses.

Keywords: Business Productivity, Tourism Sector, Quantile Regression, Labour, MSMEs

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INTRODUCTION

In recent decades, the tourism sector has evolved beyond being viewed as a complementary sector, becoming a key driver of economic development. Tourism contributes to economic growth, driving the expansion of supporting sectors such as accommodation, food and beverage, and transportation, as well as expanding employment opportunities and labor mobility (Mitra et al., 2024; Taylor et al., 2022; Ai et al., 2024; Russo et al., 2025; Aryal et al., 2018; Salazar, 2020; Jóhannesson et al., 2022; Chan, 2018; Villa, 2019).

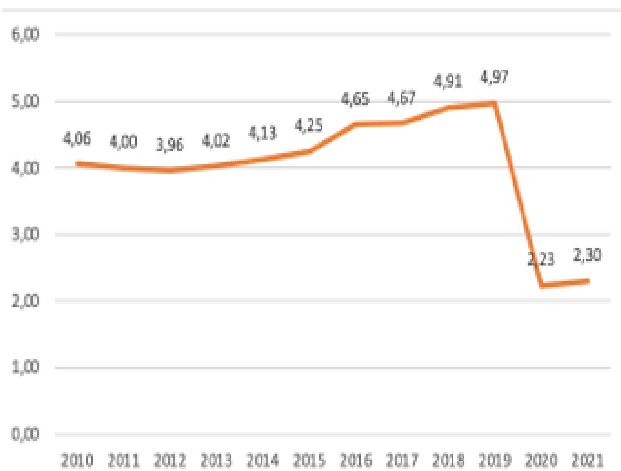

Figure 1. Contribution of Tourism to Indonesia's GDP

Source: Indonesian Ministry of Tourism and Creative Economy, 2010–2021

However, existing research shows that tourism sector growth does not directly translate into inclusive and sustainable development, particularly at the local level (Hamaguchi, 2024). This suggests that the success of the tourism sector is determined not only by increased output but also by how its economic benefits are distributed at regional level.

At the national level, tourism's contribution to Indonesia's GDP showed an increasing trend from 2010 to 2019, despite being impacted by the pandemic in 2020 to 2021 (Figure 1). This reflects the tourism sector's strategic role as a driver of economic growth and job creation.

However, at the regional level, the dynamics are not always consistent. In the context of regional statistics in Indonesia, the tourism sector is not classified as a separate sector within the GRDP structure, but rather is represented through the accommodation and food and beverage sector, as classified by the Central Statistics Agency (BPS).

Figure 2. Growth of the Tourism Sector's GRDP and Its Contribution to the Total GRDP of Central Java

Source: Central Java Central Bureau of Statistics, 2019-2024

Based on this approach, Central Java's GRDP data shows that despite an increase in output value in tourism-related sectors, its contribution to the region's total GRDP has tended to stagnate or even decline in some periods, as seen figure 2.

This situation indicates a gap between the growth of the tourism sector and its contribution to the regional economy. In other words, the increase in tourism activity has not fully increased its relative role in the regional economic structure. This phenomenon can be caused by various factors, such as low local added value, limited involvement of local business actors, or the dominance of other, faster-growing sectors. Therefore, analysis cannot be conducted at the aggregate level but needs to be directed at the micro level, specifically focusing on the performance and productivity of tourism businesses.

In this context, Magelang Regency is a relevant location for study because it is part of the Borobudur National Strategic Tourism Area (KSPN), which boasts international-class tourist attractions. The development of this area includes various strategic projects such as the construction of the Mendut-Pawon-Borobudur Cultural Axis route, the development of the Borobudur Art Village, and other supporting facilities (Mileneo, 2023).

Furthermore, the latest policy direction in the 2025–2029 Regional Medium-Term Development Plan (RPJMD) also emphasizes the importance of strengthening the role of the local economy in supporting tourism. This demonstrates that the success of tourism development in this region is highly dependent on the involvement of local businesses.

Development in the tourism sector depends not only on promotion but also on the ability of businesses to manage resources productively. Entrepreneurship in the tourism sector plays a crucial role in driving community-based economic development (Jiménez et al., 2022).

Various studies have shown that business productivity is influenced by factors such as education (Becker, 1964), experience and training (Hasriadi et al., 2023), initial capital (Mahdinia & Daneshvar, 2022), workforce (Liu & Wu, 2019), legality and certification (Ali et al., 2024; Elhoushy et al., 2025), technology and internet usage (Song et al., 2023), partnerships (Manalu et al., 2024), and financial inclusion and public policy (Jiménez et al., 2022).

However, the results of existing research are still inconsistent. Existing research has found limited access to financing, legality, and partnerships. While these factors are a major obstacle for businesses, other studies have emphasized the importance of digitalization and innovation. The differences in the results of these studies indicate that the impact of each factor varies depending on the characteristics and level of business development.

The limited number of studies that capture the influence of various factors on various levels of business productivity, particularly in the context of regional tourism, is a limitation of this study. To address this issue, this study draws on the Cobb-Douglas production function theory, which explains the relationship between inputs and outputs in the production process (Cobb & Douglas, 1928).

However, conventional use of this approach tends to capture only average influences and fails to reflect the heterogeneity of business actors. Therefore, this study employs a quantile regression approach (Koenker & Bassett, 1978; Shim, 2017), which is used to analyze the influence of variables on different levels of productivity.

This approach is more appropriate for tourism MSMEs, which have varying business scales, varying human resource capacities, and diverse market access. Based on this background, this study aims to analyze the factors influencing business productivity in the tourism sector in Magelang Regency. This understanding is crucial to ensuring that tourism sector development not only drives growth but also provides a more equitable and sustainable economic impact at the local level.

RESEARCH METHODS

This study uses a quantitative approach that allows for objective and measurable analysis of socio-economic phenomena (Waruwu et al., 2025). The main objective of this study is to analyze the factors influencing the productivity of tourism business actors in Magelang Regency using a quantile regression approach.

The study population includes all tourism business actors registered and participating in the development program of the Magelang Regency Tourism, Youth, and Sports Office, totaling 790 business units. This population reflects tourism business actors throughout Magelang Regency, including the Borobudur buffer zone as part of the National Tourism Strategic Area (KSPN). According to the formula developed by Krejcie and Morgan (1970), the required sample size is calculated as follows:

$$n = \frac{x^2 . N . P(1-P)nx}{d^2 2(N-1) + x^2 . P(1-P)}$$

where n is the sample size, N is the population of 790, P is the population proportion (assumed to be 0.5), d is the margin of error, and χ^2 is the chi-square value at the desired confidence level.

Using a margin of error of 10% (d = 0.10) and a 95% confidence level (χ^2 = 3.841), the calculation yields a minimum sample size of approximately 65 respondents. The selection of a 10% margin of error is based on practical considerations, including field constraints, data accessibility, and the relatively homogeneous characteristics of the sampled tourism MSMEs. Although a 5% margin is more commonly used in large-scale surveys, a 10% margin is acceptable in exploratory or microeconomic studies, especially when the population is limited and difficult to access. A purposive sampling technique was used, where respondents were selected based on specific criteria relevant to the research objectives.

The criteria include: (1) businesses that have been operating for at least one year, (2) businesses actively generating revenue at the time of the survey, (3) enterprises classified within tourism-related activities (e.g., accommodation, food and beverage, handicrafts, and tourism services), and (4) willingness of the owner or manager to participate in the survey. The total sample analysed in this study comprises 65 business units. Data were collected during the period of May until July 2025.

This study uses a logarithmic form of the Cobb-Douglas Production Function to examine the effect of various inputs on business productivity. The dependent variable is Business Productivity (Y), which is measured as the logarithm of monthly business revenue. To improve clarity and replicability, the operational definition of variables is summarised in Table 1.

The independent variables are: Initial Ca;ital (lncat), measured as the logarithm of initial business capital; Labour (lnlab), measured as the logarithm of number of workers; Education (educ), measured in years of formal education; Business Longevity (lnexist), measured as the logarithm of duration of business operation.

Other explanatory variable measured in a dummy variable are: Legal (legal), in which the value of one is legal and the value of zero is illegal; Certification (stand), in which the value of one means the product/business has certification and the value of zero means they don't; Technology (tech2), in which the value of one means the business utilizes internet and the value of zero means it doesn't; Community (comm), in which the value of one means the business joined a community/group/association and the value of zero means others; Partnership (part), in which the value of one means the business is implementing partnership or collaboration and the value of zero means it doesn't; lastly, Financial Inclusion (fin), in which the value of one means the business is ever/currently receiving credit from a financial institution and the value of zero means it never receives.

This study aims to analyze the determinants of business productivity in the tourism sector in Magelang Regency using quantile regression. Quantile regression is a method introduced by Koenker and Bassett (1978), which is used to examine how independent variables affect business productivity at different levels in its distribution.

Unlike conventional regression approaches that focus solely on the mean value, quantile regression allows for the analysis of relationships at multiple levels, specifically at the 0.25, 0.50, and 0.75 quantiles. This approach is particularly suitable for analyzing tourism MSMEs, where business performance tends to be heterogeneous.

Some companies operate at relatively low productivity levels, while others perform at higher levels, and these differences can lead to varying effects of explanatory variables. By capturing this variation, quantile regression provides a more detailed understanding of the determinants of productivity.

In this study, the model is estimated using cross-sectional data. This allows the analysis to focus on differences between business units at a specific point in time, rather than changes over time. To complement the regression results, descriptive statistics—such as the mean, median, standard deviation, minimum, and maximum values—are also presented to provide an overview of the sample characteristics. Formally, the quantile regression model can be expressed as follows:

$$Q\tau(Yi|Xi) = Xi\beta\tau, 0<\tau<1$$

Where $Q\tau(Yi|Xi)$ represents the conditional quantile of the dependent variable Yi, τ denotes the quantile level (0.25, 0.50, and 0.75), Xi is a vector of independent variables, and $\beta\tau$ is the vector of parameters estimated for each quantile.

RESULTS AND DISCUSSION

This section presents the empirical findings regarding the determinants of business productivity among tourism enterprises in Magelang Regency.

The analysis employs quantile regression to examine how explanatory variables influence business income across different productivity levels, such as low, medium, and high performing businesses represented by the 25th, 50th, and 75th quantiles.

The tourism enterprises included in this study demonstrate varying characteristics in terms of labour capacity, educational background, certification ownership, internet utilisation, community involvement, and access to financial services. These variations reflect the heterogeneous conditions of tourism MSMEs in Magelang Regency and support the application of the quantile regression approach to capture differences in the effects of determinants across productivity levels.

Table 1 shows the results of quantile regression estimation for business income (LnIncome) at quantiles 0.25, 0.50, and 0.75, representing low-, medium-, and high-performing tourism businesses, respectively.

Table 1. Quantile Regression Results for Business Income (Lnincome)

Variable	Q25	Q50	Q75
lncat (Initial Capital)	0.124	0.034	0.012
	(0.083)	(0.103)	(0.114)
lnlab (Labour)	0.368**	0.539**	0.499**
	(0.175)	(0.217)	(0.240)
educ (Education)	0.237	0.522	0.918*
	(0.355)	(0.440)	(0.488)
lnexist (Business Longevity)	0.049	-0.150	-0.055
	(0.171)	(0.212)	(0.235)
legal (Formal Legality)	0.277	0.230	0.250
	(0.388)	(0.481)	(0.534)
stand (Certification)	1.034***	0.745*	0.760
	(0.349)	(0.434)	(0.481)
tech2 (Internet Utilisation)	1.236*	1.119	-0.831
	(0.628)	(0.780)	(0.864)
part (Business Partnerships)	0.452	0.155	0.419
	(0.363)	(0.450)	(0.499)
comm (Community Membership)	0.600*	0.177	0.571
	(0.354)	(0.439)	(0.487)
fin (Financial Inclusion)	-0.161	0.407	0.081
	(0.464)	(0.576)	(0.639)
Constant	10.79***	13.62***	16.23***
	(1.576)	(1.956)	(2.169)
Observations	65	65	65

Note: Standard errors in parentheses; ln logaritma natural. *** $p<0.01$, ** $p<0.05$, * $p<0.1$
Source: Data processed, 2025

The results indicate that labor (lnlab) consistently has a positive and significant effect on all quantiles. Initial capital (lncat) has a positive coefficient at all quantiles, but its effect is not significant at all quantiles. Education (educ) has a positive coefficient at all quantiles, but is only significant at the top quantile (Q75). Certification (stand) has a positive and significant effect on the bottom quantile (Q25) and the middle quantile (Q50), but is not significant at the top quantile.

Internet use (tech2) has a positive and significant effect on the bottom quantile, but is not significant at the middle and top quantiles. Community membership (comm) has a positive and significant effect on the bottom quantile.

Meanwhile, business partnerships (part) show positive and insignificant coefficients at all quantiles. Based on the quantile regression results, the initial capital variable (lncat) has a positive but insignificant coefficient across all quantiles (Q25, Q50, Q75). This finding indicates that capital is not a factor influencing tourism business productivity in Magelang Regency.

Related to the Cobb-Douglas production function (Cobb & Douglas, 1928), these results indicate that the contribution of capital to productivity is determined more by factors other than physical inputs. In Magelang Regency, this condition can be explained by the characteristics of the service-based tourism sector, where added value is generated more from interactions, experiences, and social networks than from increasing assets.

This is in line with Mahdinia & Daneshvar (2022), who stated that tourism micro-entrepreneurs tend to rely on experience and social networks. Furthermore, the insignificant capital factor across all quantiles indicates that both small and large businesses do not prioritize capital.

This is reinforced by the findings of Jiménez et al. (2022) that the impact of capital is highly dependent on the socioeconomic context and policy support. Without training, market access, and managerial capacity, additional capital does not automatically increase productivity.

In Magelang Regency, this situation is influenced by the high influx of tourists, which is not always distributed evenly among local businesses, so additional capital does not always increase revenue. This emphasizes that financing policies must be accompanied by strengthening the capacity to use capital productively.

The Effect of Labor (lnlab) on Business Productivity (Y) The labor variable shows a positive and significant effect across all quantiles. This result reflects that labor is the most consistent factor driving productivity, both at low and high business productivity levels. Within the Cobb-Douglas framework, this result indicates that labor elasticity is relatively large and stable, so its contribution to output is greater than that of other input factors.

This result indicates that the majority of tourism MSMEs in Magelang Regency are labor-intensive. From a quantile perspective, the high coefficients for Q50 and Q75 indicate that increasing labor becomes increasingly important as business scale increases. This means that larger businesses require more labor to maintain productivity.

This result is in line with (Liu & Wu, 2019) and supported by (Manalu et al., 2024; Turyakira et al., 2025), which emphasize the importance of team capacity in driving innovation. Even the research of León-Gómez et al., 2025 emphasized the importance of the workforce that digitalization is only effective if supported by a competent workforce. In the context of Borobudur, high tourism activity has led to an increased need for labor, especially in direct service sectors, such as culinary, crafts, and tourism services. Therefore, empowering the local workforce is key to optimizing the economic benefits of tourism.

Education was only significant at the upper quantile (Q75), indicating that education plays a differentiating role in high-productivity businesses. This indicates that at the lower level (Q25), productivity is determined more by practical experience (street knowledge), while at the higher level, business complexity increases, requiring higher managerial and cognitive skills.

This finding is consistent with Human Capital Theory (Becker, 1964), but with the nuance that the effects of education are not homogeneous. The quantile approach suggests heterogeneity in the effects of education on productivity.

Empirically, this condition can be explained by the fact that many entrepreneurs with low education are still able to survive through experience, but as businesses grow, education becomes an important factor in strategic decision-making. This finding is supported by (Li et al., 2020; Santoso & Indudewi, 2022) and (León-Gómez et al., 2025).

Furthermore, (Hansen-Addy et al., 2023) emphasize that policy effectiveness is highly dependent on the internal capacity of business actors. Thus, education cannot stand alone but must be supported by experience, access to technology, and a conducive business environment.

The variables of business tenure, legality, and financial inclusion were insignificant across all quantiles. This suggests that administrative attributes and experience do not directly increase productivity. Across quantiles, this insignificance is consistent across the distribution, indicating there is no difference in the role of these variables between small and large businesses.

Research in Magelang Regency found that legality and financial access are often merely formalities and not yet linked to business strategy, so these variables have no direct impact on productivity. This finding aligns with Hansen-Addy et al. (2023) and Kozhukhivska & Sakovska (2021). The findings of Kurniasari et al. (2025) indicate that financial inclusion is only effective if accompanied by management capacity. Therefore, the primary issue is not access to financing, but how business actors utilize that access.

The results of the study indicate that product certification has a positive and significant effect on the lower quantile (Q25) and middle quantile (Q50), but is not significant on the upper quantile (Q75). This means that the benefits of product certification are felt more by businesses with low and medium productivity levels compared to businesses that are already at a high level.

These results indicate differences in the role of certification at each quantile. For small-scale businesses, product certification serves as initial capital to increase buyer confidence. Conversely, for established businesses, product certification has no effect because usually the product is already widely known to the public and already has loyal customers to buy. This finding aligns with Ali et al., 2024; Elhoushy et al., 2025, which emphasize that certification can strengthen the position of small businesses in the market.

Furthermore, Teruel-Sanchez et al., 2025, which shows that business sustainability is strongly influenced by tourism values and the environment, suggests that formal recognition such as certification can be part of a business strengthening strategy.

Furthermore, (León-Gómez et al., 2025) emphasized that the combination of innovation, sustainable practices, and certification can significantly improve SME performance. Meanwhile, (Hansen-Addy et al., 2023) found that certification can facilitate SME product acceptance in the market.

The results of this study indicate that internet use exhibits different patterns at each quantile. This variable has a positive and significant effect at the lower quantile (Q25), is insignificant at the middle quantile (Q50), and is negative at the upper quantile (Q75).

These results indicate differences in technology utilization among businesses. The significant results at the lower quantile indicate that for businesses with low productivity, the internet provides benefits for expanding promotion and market access. However, as businesses grow, internet use is insufficient to drive performance improvements, so the effect becomes insignificant and decreases at Q75.

These findings align with those of (Ancillai et al., 2023), who state that the effectiveness of technology is highly dependent on the alignment between business needs and the level of digitalization complexity. Furthermore, research by Bueechl et al. (2021) emphasized that the benefits of digitalization will be optimal if implemented across all elements, not only in marketing but also in business operations.

Leon-Gómez et al. (2025) also showed that digitalization and ICT can strengthen business performance, but this is highly dependent on the readiness of the business actors themselves. This finding is supported by Santoso & Indudewi (2022), who found that a lack of management skills and digital literacy among business owners leads to suboptimal technology utilization.

Community membership showed a positive and significant effect at the bottom quantile (Q25), but was insignificant at the middle and upper quantiles. These results suggest that the role of the community is more important for entrepreneurs just starting out or those with low productivity.

Research by Turyakira et al. (2025) also shows that extensive networks and innovation contribute to small business performance, while research by Seyfi et al. (2024) found the importance of informal communities in maintaining business continuity. In this context, it can be concluded that small business owners rely on the business community for information, events, and business support, and this dependence tends to decrease as the scale or productivity of the business actors increases.

These results are also in line with Granovetter (1985), who emphasized that economic activity cannot be separated from social relationships. The existence of the business community in Magelang Regency plays a supporting role in building a tourism ecosystem through joint promotion and training. This is why its impact is more pronounced in the lower quantile than in the upper quantile.

The concept of partnerships in tourism business development aims to increase productivity through synergy between local businesses and other key stakeholders in the tourism ecosystem.

However, this study's findings indicate that the partnership variable does not have a significant impact on business productivity at all quantile levels, despite its positive coefficient value.

This suggests that the partnership concept has not yet been able to increase competitiveness and revenue. Many partnerships are limited to basic supply relationships, such as the provision of raw materials, without incorporating knowledge transfer, improved market access, or integration into the tourism value chain.

In Magelang Regency, effective partnerships must involve collaborative efforts between small businesses and hotels, travel agents, transportation providers, and the local government. Such collaboration is crucial for building an integrated tourism system, where local businesses hold a strong position in the supply chain.

The study's findings indicate that the collaborative ecosystem is not yet optimal, necessitating institutional interventions that not only encourage partnership formation but also ensure their quality, sustainability, and impact on increasing business productivity.

CONCLUSION

This study aims to analyze the factors influencing business productivity in the tourism sector in Magelang Regency using a quantile regression approach. This approach examines the differences in the influence of variables at various levels of business productivity (Q25, Q50, Q75).

The results indicate that labor has a significant influence across all quantiles. Education is only significant at the upper quantile (Q75), confirming that education is a differentiating factor for businesses with high productivity levels.

Meanwhile, product certification, internet usage, and community membership are particularly influential at the lower and middle quantiles, demonstrating the importance of these factors for micro and small businesses in increasing competitiveness.

Conversely, initial capital, length of business, legality, financial inclusion, and partnerships do not have a significant influence across all quantiles. Policy implications suggest that interventions need to be more targeted. For businesses in the lower quantile, the local government can prioritize certification facilitation and training in Borobudur-based digital marketing.

For businesses in the upper quantile, strengthening managerial capacity and integration with the tourism supply chain, such as hotels and travel agents, is necessary. Furthermore, the business community needs to be strengthened as a liaison between local businesses and the market.

This study is limited by its sample size, use of cross-sectional data, and the failure to include external variables such as tourist intensity and supply chain linkages. Future research is recommended to use longitudinal data and include more contextual variables to obtain more comprehensive results.

REFERENCES

Ai, R., Song, J., & Xie, X. (2024). Visualization and Analysis of Knowledge Graph for the Integration of Traditional Culture and Rural Tourism Industry. Applied Mathematics and Nonlinear Sciences, 9(1), 1–20. https://doi.org/http://dx.doi.org/10.2478/amns.2023.2.01308

Ali, S., Fitria, N., Meilani, I. K., Sutrisno, E., & Indraswari, S. P. (2024). Legality of MSMEs for Tourism Village Development. Jurnal Sosial Dan Teknologi (SOSTECH), 5(5), 247–252.

Ancillai, C., Sabatini, A., Gatti, M., & Perna, A. (2023). Digital technology and business model innovation: A systematic literature review and future research agenda. Technological Forecasting and Social Change, 188(March), 122307. https://doi.org/10.1016/j.techfore.2022.122307

Aryal, S., Cockfiel, G., & Maraseni, T. N. (2018). Globalisation and traditional social-ecological systems: Understanding impacts of tourism and labour migration to the transhumance systems in the Himalayas. Environmental Development, 25(March), 73–84. https://doi.org/10.1016/j.envdev.2017.09.001

Becker, G. S. (1964). Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. National Bureau of Economic Research.

Bueechl, J., Härting, R., & Schröder, M. (2021). Influence of Digitization on Employee Satisfaction Influence of Digitization on Employee Satisfaction in Small and Medium-sized Enterprises in Small and Medium-sized Enterprises. Procedia Computer Science, 192(2021), 2753–2760. https://doi.org/10.1016/j.procs.2021.09.045

Chan, C. (2018). The politics of leisure and labor mobilities: discourses of tourism and transnational migration in Central Java, Indonesia. Mobilities, 13(3), 325–336. https://doi.org/10.1080/17450101.2017.1356436

Cobb, C. W., & Douglas, P. H. (1928). A Theory of Production. The American Economic Review, 18(1), 139–165. https://www.jstor.org/stable/1811556

Elhoushy, S., Elzek, Y., & Font, X. (2025). Sustainable tourism certification: a systematic literature review and suggested ways forward. Journal of Sustainable Tourism, 0(Apr), 1–27. https://doi.org/10.1080/09669582.2025.2487674

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. American Journal of Sociology, 91(3), 481–510. https://www.jstor.org/stable/2780199

Hamaguchi, Y. (2024). Environmental and Tourism Policies for the Decarbonization of the Tourism Sector. In Sustainable Tourism (pp. 231–256). Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-43528-7_11

Hansen-Addy, A. E., Parrilli, D. M., & Tingbani, I. (2023). The impact of trade facilitation on African SMEs' performance. Small Business Economics, April(13), 1–27. https://doi.org/10.1007/s11187-023-00756-4

Hasriadi, Qamaruddin, M. Y., & Rajiman, W. (2023). Pengaruh Sektor Pariwisata Terhadap Pertumbuhan Ekonomi di Kota Palopo. Oikos: Jurnal Kajian Pendidikan Ekonomi Dan Ilmu Ekonomi, 7(2), 387–394. https://doi.org/10.23969/oikos.v7i2.7215

Jiménez, S. O., García, A. R. G., Río, S. V. del, & Hernández, C. A. J. (2022). Entrepreneurship in Tourism Studies in the 21st Century: A Bibliometric Study of Wos and Scopus. Sage Open, 12(2), 1–17. https://doi.org/10.1177/21582440221102438

Jóhannesson, G. T., García-Almeida, D. J., Gunnarsdóttir, G. Þ., & Gudlaugsson, T. O. (2022). Tourism Entrepreneurship: Knowledge and Challenges for a Sustainable Future. In Tourism Entrepreneurship. Sustainable Development Goals Series (pp. 1–10). Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-61249-7_1

Koenker, R., & Bassett, G. (1978). Regression Quantiles. Econometrica, 46(1), 33. https://doi.org/10.2307/1913643

Kozhukhivska, R., & Sakovska, O. (2021). Organizing of Tourist Services as a Component of Planning The Activities of Infrastructure in Tourism. Market Infrastructure, 10(57). https://doi.org/https://doi.org/10.32843/infrastruct57-10

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610. https://doi.org/10.1177/001316447003000308

Kurniasari, F., Hamid, N. A., & Lestari, E. D. (2025). Unraveling the impact of financial literacy, financial technology adoption, and access to finance on small medium enterprises business performance and sustainability: a serial mediation model. Cogent Business & Management, 12(1 (2487837)), 1–27. https://doi.org/10.1080/23311975.2025.2487837

León-Gómez, A., Manuel, J. S.-J., Palacios-Manzano, M., & Garza-Sanchez, H. H. (2025). Unlocking sustainable competitive advantage: exploring the impact of technological innovations on performance in Mexican SMEs within the tourism sector. In Environment, Development and Sustainability (Vol. 27, Issue 2). Springer Netherlands. https://doi.org/10.1007/s10668-023-04025-y

Li, C., Murad, M., Shahzad, F., Khan, M. A. S., Ashraf, S. F., & Dogbe, C. S. K. (2020). Entrepreneurial Passion to Entrepreneurial Behavior: Role of Entrepreneurial Alertness , Entrepreneurial Self-Efficacy and Proactive Personality. Frontiers in Psychology, 11(1611), 1–19. https://doi.org/10.3389/fpsyg.2020.01611

Liu, A., & Wu, D. C. (2019). Tourism productivity and economic growth. Annals of Tourism Research, 76(May), 253–265. https://doi.org/10.1016/j.annals.2019.04.005

Mahdinia, M. H., & Daneshvar, M. R. M. (2022). Assessment of innovative strategies to improve the tourism sector in Iran. SN Business & Economics, 2(12), 187. https://doi.org/10.1007/s43546-022-00365-5

Manalu, S. A., Simatupang, T. M., & Novani, S. (2024). Tourism entrepreneurship research: a mixed embeddedness approach. Cogent Business & Management, 11(1), 2418421. https://doi.org/10.1080/23311975.2024.2418421

Mileneo, M. F. (2023). Pengembangan Baru Kawasan Wisata Borobudur, Makin Apik dengan Berbagai Daya Tarik. Www.Goodnewsfromindonesia.Id. https://www.goodnewsfromindonesia.id/2023/07/23/pengembangan-baru-kawasan-wisata-borobudur-makin-apik-dengan-berbagai-daya-tarik

Mitra, S. K., Sharma, J., Srinivasan, M., Mohanty, J., & Ali, S. (2024). Capability choices in tourism and economic activities: The influence of human development. Tourism Economics, 31(5), 933–950. https://doi.org/10.1177/13548166241304182

Russo, A. P., Rabbiosi, C., Hoed, W. Den, & Paulino, I. (2025). Beyond destination accessibility : tourism infrastructure across mobilities , technologies and embodiments Beyond destination accessibility : tourism infrastructure. Beyond Destination Accessibility: Tourism Infrastructure across Mobilities, Technologies and Embodiments, 10(2), 99–110. https://doi.org/10.1080/23800127.2025.2510124

Salazar, N. B. (2020). Labour migration and tourism mobilities: Time to bring sustainability into the debate. Tourism Geographies, 24(1), 141–151. https://doi.org/10.1080/14616688.2020.1801827

Santoso, D. M., & Indudewi, Y. R. (2022). The Entrepreneurial Resiliennce Study on The Young Nascent Entrepreneurs. JMK (Jurnal Manajemen Dan Kewirausahaan), 24(2), 129–137. https://doi.org/10.9744/jmk.24.2.129

Seyfi, S., Tavangar, M., Kimbu, A. N., & Vo-Thanh, T. (2024). Surviving crisis: Building tourism entrepreneurial resilience as a woman in a sanctions- ravaged destination. Tourism Management, 106(5). https://doi.org/10.1016/j.tourman.2024.105025

Shim, J. (2017). Does Diversification Drive Down Risk-adjusted Returns? A Quantile Regression Approach. Asia-Pacific Journal of Risk and Insurance, 11(2). https://doi.org/10.1515/apjri-2016-0015

Song, Y., Yan, J., Yu, Z., Li, T., & Yang, Y. (2023). Financial impact of cost of capital on tourism - based SMEs in COVID - 19: implications for tourism disruption mitigation. Environmental Science and Pollution Research, 30(1), 36439–36449. https://doi.org/10.1007/s11356-022-24851-3

Taylor, A., Thurmer, J., & Karácsonyi, D. (2022). Regional demographic and economic challenges for sustaining growth in Northern Australia Regional demographic and economic challenges for sustaining growth in Northern Australia. Regional Studies, Regional Science, 9(1), 425–445. https://doi.org/10.1080/21681376.2022.2082316

Teruel-Sanchez, R., Briones-Peñalver, A. J., Andrés, J. B.-C., & Nieves-Nieto, C. De. (2025). Values of the entrepreneur as a driver of sustainable tourism entrepreneurship. Journal of International Entrepreneurship, (0123456789). https://doi.org/10.1007/s10843-025-00381-0

Turyakira, P., Sendawula, K., Nanyanzi, M., & Nantale, H. (2025). Social entrepreneurship : empirical evidence on its contribution to the realization of the sustainable development goals in Uganda. Journal of Work-Applied Management, 17(1), 160–172. https://doi.org/10.1108/JWAM-02-2023-0011

Villa, M. (2019). Local Ambivalence to Diverse Mobilities – The Case of a Norwegian Rural Village. Sociologia Ruralis, 59(4), 701–717. https://doi.org/10.1111/soru.12263

Waruwu, M., Pu`at, S. N., Utami, P. R., Yanti, E., & Rusydiana, M. (2025). Metode Penelitian Kuantitatif: Konsep, Jenis, Tahapan dan Kelebihan. Jurnal Ilmiah Profesi Pendidikan, 1(1), 917–932. https://doi.org/10.29303/jipp.v10i1.3057