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The Impact of Tourism Regulations on Tourist Visit Performance: A Comparative Analysis of Indonesia and Singapore

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Abstract: Tourism regulations play a critical role in shaping destination competitiveness and influencing tourist travel decisions, yet empirical evidence on their effectiveness across different institutional contexts remains limited. This study investigates the impact of tourism regulations on tourist visit performance through a comparative quantitative analysis of Indonesia and Singapore. Using panel data covering the period 2010–2023, this research employs a fixed-effects regression model to examine the relationship between regulatory quality and tourist arrivals, while controlling for economic conditions and transport infrastructure. The findings reveal that tourism regulations have a positive and statistically significant effect on tourist visit performance in both countries. However, the magnitude of the effect is substantially stronger in Singapore, indicating higher regulatory efficiency and institutional effectiveness in translating policy interventions into tourism demand. These results support institutional and tourism demand theories, emphasizing that regulatory quality, rather than regulatory volume, is a key determinant of tourism performance. The study contributes to the tourism policy literature by providing cross-national empirical evidence on regulatory impacts and highlighting the importance of governance capacity in tourism development. From a policy perspective, the findings suggest that countries should prioritize regulatory coherence, administrative efficiency, and adaptive governance to enhance tourism competitiveness and resilience.

Keywords: Comparative Analysis; Indonesia-Singapore; Institutional Effectiveness; Tourism Regulations; Tourist Visit Performance.

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1. Introduction

The tourism sector has regained momentum following deep disrup- tions caused by the COVID-19 pandemic, and international tourism volumes are approaching pre-pandemic levels globally. In 2024, tourism arrivals in major destinations such as Europe and the Middle East recovered robustly, with global inbound travel projected to continue rising in 2025 amid easing travel restrictions and recovering mobility trends. Although such recoveries demonstrate the resilience of the sector, the effectiveness of destination management policies particularly tourism regulations remains a critical determinant of performance outcomes across different institutional contexts [1] [2].

Tourism is widely recognized as one of the most significant drivers of economic growth, employment creation, and international exchange in the global economy. According to the United Nations World Tourism Organization, international tourist arrivals have shown a strong recovery following the COVID-19 pandemic, reaching more than 80 percent of pre-pandemic levels by 2023, with Asia-Pacific experiencing the fastest rebound trajectory [3]. Despite this recovery, the pace and stability of tourism performance vary considerably across countries, largely due to differences in regulatory frameworks, institutional capacity, and policy responsiveness. These disparities raise critical questions regarding the role of tourism regulations in shaping tourist visit performance across different national contexts [4].

At the global level, tourism regulations have become increasingly prominent as governments attempt to balance economic recovery with public safety, sustainability, and destination competitiveness. Regulations related to visa policies, travel restrictions, health protocols, and service standards directly affect tourists' mobility, perceived risk, and destination choice [5]. Empirical evidence suggests that destinations with transparent, predictable, and facilitative regulatory environments tend to recover more quickly and attract higher tourist inflows than those with fragmented or restrictive policies [6]. However, the effectiveness of such regulations remains uneven, indicating the need for deeper empirical investigation.

In Southeast Asia, Indonesia and Singapore represent two contrasting but strategically important tourism destinations. Indonesia relies heavily on tourism as a source of foreign exchange and regional development, while Singapore positions itself as a global hub destination supported by strong institutional governance and regulatory efficiency. Recent data indicate that Singapore's international tourist arrivals rebounded more rapidly and consistently than Indonesia's during the post-pandemic period, despite Indonesia's larger natural and cultural tourism potential [7]. This contrast highlights the possibility that regulatory quality, rather than resource endowment alone, plays a decisive role in tourism performance [8].

From a local policy perspective, Indonesia has implemented multi- ple tourism-related regulatory reforms, including visa-on-arrival expansion, health protocol adjustments, and destination governance restructuring. Nevertheless, policy implementation challenges, regulatory inconsistencies across regions, and administrative complexity continue to affect tourism performance stability. In contrast, Singapore maintains a highly centralized, technology-driven regulatory system characterized by policy coherence, rapid adaptation, and strong enforcement capacity. These differing regulatory environments provide a compelling basis for comparative analysis to understand how tourism regulations influence tourist visit performance.

Locally, variations in tourism regulation have become increasingly salient in discussions about policy effectiveness. Indonesia's regulatory landscape includes diverse visa facilitation measures such as visa-on-arrival programs and targeted exemptions, yet implementation challenges persist due to administrative heterogeneity and interagency coordination constraints. Singapore's streamlined and technology-oriented regulations have facilitated more predictable cross-border movement, contributing to higher inbound tourism receipts and frequent repeat visitation [9]. Despite these observable patterns, systematic comparative analyses that quantify the regulatory impact on tourism performance across different governance regimes remain scarce.

The academic literature on tourism policy and competitiveness broadly affirms the importance of regulatory frameworks for shaping destination attractiveness. One theoretical strand emphasizes that well designed tourism regulations enhance service quality, reduce uncertainty for travelers, and provide requisite market signals that encourage inbound tourism [10]. However, most existing studies focus either on descriptive policy analyses or on case studies limited to single destinations, without establishing robust empirical linkages between regulatory variables and tourism metrics such as visitor arrivals.

Theoretically, this study draws upon public policy theory, institu- tional theory, and tourism demand theory. Public policy theory emphasizes that regulatory design and implementation shape economic behavior by influencing costs, incentives, and access [11], [12]. Institutional theory further argues that strong regulatory institutions enhance market confidence and reduce uncertainty, thereby increasing destination attractiveness [13],[14],[15],[16]. Tourism demand theory complements this view by suggesting that non-price factors such as administrative ease, safety assurance, and regulatory transparency significantly affect tourists' destina- tion choices [17],[18].

A growing body of empirical research has examined determinants of international tourist arrivals, including income levels, exchange rates, infrastructure, and destination image. Studies by [19],[20], demonstrate that macroeconomic and institutional variables significantly influence tourism demand. However, many of these studies treat regulation as a broad institutional indicator rather than examining tourism-specific regulatory dimensions, limiting their ability to capture policy effects directly linked to tourism governance.

More recent studies have begun to address tourism regulations more explicitly. For example, research by [21] and [6] finds that regulatory facilitation, particularly in visa policies and travel administration, positively affects tourist arrivals and destination competitiveness. Conversely, overly restrictive or inconsistent regulations have been shown to suppress demand and delay recovery. While these findings provide valuable insights, most existing

studies focus on single country cases or regional aggregates, offering limited comparative evidence between countries with different institutional maturity levels.

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The literature also reveals a methodological gap, as relatively few quantitative studies employ comparative cross-country designs to assess the causal impact of tourism regulations on tourist visit performance. Moreover, comparisons between developing and developed tourism destinations within the same region remain underexplored. This gap is particularly evident in the ASEAN context, where regulatory diversity is high but systematic empirical comparisons are scarce. Consequently, the relationship between tourism regulations and visit performance remains insufficiently understood from a comparative institutional perspective.

Moreover, existing work often overlooks how regulatory effective- ness interacts with broader socio-economic variables, such as economic development levels, transport connectivity, and institutional efficacy factors that may moderate the relationship between regulatory actions and tourism outcomes. Without such integrative analyses, policymakers lack robust evidence on which regulatory mechanisms are most effective in enhancing tourism performance under varied national conditions.

The present study contributes to filling these gaps by conducting a comparative quantitative analysis of the impact of tourism regulations on tourist visit performance in Indonesia and Singapore, two ASEAN destinations with contrasting regulatory contexts and tourism outcomes. This re- search leverages panel data techniques to isolate the influence of tourism regulatory quality on international visitor arrivals while controlling for economic and infrastructural determinants.

The main objective of the study is to empirically assess whether tourism regulations significantly influence tourist visit performance, and if so, how the magnitude of this influence differs between Indonesia and Singapore. By focusing on a comparative institutional setup, the study aims to provide deeper insights into the conditions under which regulatory interventions are most effective in supporting tourism recovery and growth.

In response to these gaps, this study aims to empirically examine the impact of tourism regulations on tourist visit performance through a comparative analysis of Indonesia and Singapore. The main objective is to assess whether and to what extent tourism regulations significantly influence international tourist arrivals, and whether the magnitude of this effect differs between the two countries. Based on theoretical expectations, this study hypothesizes that tourism regulations have a positive and significant effect on tourist visit performance, with stronger effects observed in coun- tries with higher regulatory quality.

Accordingly, the study addresses the following research questions:

(1) Do tourism regulations significantly affect tourist visit performance in Indonesia and Singapore? (2) Are there differences in the magnitude and direction of regulatory impacts between the two countries? By answering these questions, this research contributes to the tourism policy literature by providing robust comparative evidence and offering policy-relevant in- sights for improving regulatory effectiveness in tourism development.

2. Preliminaries or Related Work or Literature Review

A growing body of research has examined determinants of international tourist arrivals across countries. Early empirical studies in tourism economics often emphasize macroeconomic variables such as income levels, exchange rates, and transport infrastructure as primary drivers of tourism demand [22], [7]. These studies typically adopt panel data regression or time-series models to quantify relationships, but they treat institutional factors and tourism regulation as background controls rather than objects of primary interest.

More recent research has considered institutional context more explicitly, [19] conducted a comprehensive review of tourism demand models and found that governance and institutional quality improve model explanatory power, but most models aggregate these factors into broad indices without isolating specific regulatory mechanisms [19]. Although their study confirms the importance of institutional context, its methodological approach does not differentiate between regulatory quality and other governance dimensions, such as political stability or corruption control.

Other studies focus on specific policy instruments. Investigates the impact of visa types on international tourist flows using cross-sectional econometric techniques across multiple countries [23]. The study finds that liberal visa regimes are associated with higher inbound tourism, suggesting that entry facilitation reduces travel barriers. However, this research is limited by its static cross-sectional design, which cannot capture temporal dynamics or regulatory changes over time. Apply panel data methods to assess how regulatory quality, proxied through aggregated governance indicators, influences tourism performance across different income groups [24]. Their results indicate that regulatory frameworks enhance tourism outcomes in high-income economies, whereas effects in emerging markets are more mixed due to implementation constraints. While this work underscores contextual variation, it does not disentangle different regulatory domains (e.g., safety, standards, visa facilitation) and uses broad governance proxies rather than tourism-specific regulatory metrics.

Other empirical research focuses on destination competitiveness more broadly. Adopt a panel data approach to evaluate tourism demand determinants, including macroeconomic and institutional variables [20]. Although institutional measures appear significant, the study's primary aim is to improve model fit rather than to assess the causal impact of regulatory quality on tourism performance specifically. Similarly, research on tourism marketing and infrastructure investment yields insights into composite drivers of tourism performance but treats regulatory factors as secondary controls [6], [25].

Collectively, these studies demonstrate progress in understanding tourism determinants but reveal three limitations relevant to the present research: (1) regulatory variables are often subsumed under broad governance indices, (2) comparative studies within similar regional contexts are limited, and (3) dynamic panel analyses that isolate regulatory effects over time are underutilized. These limitations highlight the need for research that directly quantifies the impact of tourism regulations as a discrete policy construct using rigorous longitudinal methods and comparative institutional frameworks.

2.1. Theoretical Perspectives and Related Literature

To situate the empirical research within a strong theoretical foundation, this section reviews three key theories that inform the analysis of tourism regulations and visitor performance: institutional theory, public policy theory, and tourism demand theory.

2.1.1. Institutional Theory

Institutional theory holds that formal rules and regulatory frameworks constitute key elements of economic systems that shape incentives, reduce uncertainty, and influence individual behavior. Argues that strong institutions provide stability and predictability, which are essential for economic activity and investment [14]. In tourism, institutional quality encompasses not only administrative capacity but also regulatory coherence, transparency, and enforcement effectiveness.

Empirical tourism research has begun to incorporate institutional concepts into analysis. For example, governance indicators that reflect institutional robustness are positively associated with tourism performance, suggesting that countries with stronger rule systems tend to attract more visitors [6], [7]. However, few studies explicitly model regulatory quality as an independent construct distinct from general governance, leaving a theoretical gap in understanding how specific elements of regulation affect tourism demand.

2.1.2. Public Policy Theory

Public policy theory emphasizes that policy design, implementation, and evaluation determine the effectiveness of regulatory measures [12]. In the context of tourism, regulations such as visa facilitation, safety protocols, and market standards are not merely structural features but active policy instruments intended to shape sectoral outcomes.

Research on policy implementation in other sectors shows that even well-designed regulations can fail to produce intended outcomes if enforcement mechanisms, institutional capacity, and stakeholder coordination are weak [26]. This insight is particularly relevant for emerging tourism economies where regulatory fragmentation or lack of administrative capacity can attenuate the effects of otherwise beneficial policies.

2.1.3. Tourism Demand Theory

Tourism demand theory posits that destination choice is influenced by a combination of economic, socio-cultural, and regulatory factors that shape traveler preferences and perceptions [16]. Non-price determinants including travel facilitation, risk perception, and the ease of compliance with entry procedures play a crucial role in destination attractiveness, particularly for international tourists.

2.2. Contributions to Theory and Practice

By integrating institutional, public policy, and tourism demand theories with rigorous empirical analysis, this study contributes in three ways:

1) Theoretical Precision: It operationalizes tourism regulation as a discrete policy construct, enhancing conceptual clarity relative to general governance measures.
2) Comparative Insight: It reveals how regulatory quality differences translate into tourism performance disparities between countries with different institutional capacities.
3) Methodological Rigor: It uses longitudinal panel regression to isolate regulatory effects over time, strengthening causal interpretation compared with static cross-sectional studies.

3. Proposed Method

This study adopts a quantitative, explanatory, and comparative research design to examine the impact of tourism regulations on tourist visit performance in Indonesia and Singapore. An explanatory approach is employed because the research seeks to identify and test causal relationships between tourism regulations and tourist arrivals rather than merely describing observed patterns. The comparative design enables systematic analysis of differences in regulatory impacts between two countries with contrasting institutional and governance structures within the same regional context.

The research relies on secondary quantitative data, which are appropriate for cross-country and longitudinal policy analysis. Secondary data allow for consistent measurement of macro-level variables such as tour- ism regulations and tourist arrivals across countries and over time. This approach is widely used in tourism economics and policy studies, particularly when analyzing institutional and regulatory effects [19],[20].

Data were collected from authoritative international and national sources, including the United Nations World Tourism Organization (UN- WTO), World Bank World Development Indicators, OECD Tourism Statistics, and official tourism and immigration agencies of Indonesia and Singapore. These sources provide standardized, verified, and regularly up-dated data, ensuring comparability and reliability. The study uses annual data covering the period 2010–2024, capturing pre-pandemic, pandemic, and post-pandemic regulatory dynamics.

The population of the study comprises all tourism-related regulatory and performance observations in Indonesia and Singapore during the selected period. The sample consists of country year observations derived from the available annual data for both countries. Given the limited num- ber of observations and the study's focus on complete temporal coverage, a total sampling technique is applied, whereby all relevant data points are included in the analysis. This approach minimizes sampling bias and en- hances the robustness of longitudinal comparisons.

The primary dependent variable is tourist visit performance, operationalized as the annual number of international tourist arrivals. The main independent variable is tourism regulation, measured using indicators such as visa openness, travel facilitation indices, and tourism-related regulatory quality compiled from OECD and World Bank datasets. To reduce omit- ted-variable bias, the model incorporates control variables, including GDP per capita and transport infrastructure indicators, which have been shown to influence tourism demand in prior studies.

The research instrument consists of a data extraction and coding framework used to systematically compile, organize, and standardize data across sources. Construct validity is ensured by aligning variable definitions with established theoretical and empirical literature in tourism policy and institutional economics. Because the study uses secondary data from internationally recognized institutions, reliability is ensured through source credibility, methodological transparency, and data consistency over time.

Data analysis begins with descriptive statistical analysis, including means, standard deviations, minimum and maximum values, to summarize the characteristics and distribution of the variables. This step provides an initial comparison of tourism performance and regulatory environments between Indonesia and Singapore and helps identify trends, volatility, and potential outliers prior to inferential testing.

To test causal relationships, the study employs panel data regres- sion analysis, which allows simultaneous examination of cross-sectional (between countries) and time-series (over years) variations. Fixed effects and random effects models are estimated to account for unobserved heter- ogeneity, and the Hausman test is used to determine the most appropriate specification. Panel regression is particularly suitable for policy impact studies involving longitudinal and comparative data [27].

Hypothesis testing is conducted using t-tests for individual coefficients and F-tests for overall model significance. The null hypothesis states that tourism regulations have no significant effect on tourist visit performance, while the alternative hypothesis posits a significant relationship. All tests are conducted at a 5 percent significance level ($\alpha = 0.05$). Classical assumption tests, including multicollinearity and heteroskedasticity diagnostics, are performed to ensure the validity of statistical inferences.

All statistical analyses are conducted using STATA software, which is widely used in econometric and policy research due to its strong capabilities in panel data estimation and diagnostic testing. By clearly defining the research design, data sources, variables, analytical procedures, and testing criteria, this methodology ensures transparency and replicability, allowing other researchers to reproduce or extend the study in different contexts.

4. Results and Discussion

4.1. Result

The results section begins with descriptive statistical analysis to provide an overview of the main variables used in the study. Table 1 presents the mean values and standard deviations of tourist visit performance and tourism regulation indicators for Indonesia and Singapore over the observation period. The results show that Singapore records a higher average number of international tourist arrivals with lower variability compared to Indonesia. This indicates not only stronger tourism performance but also greater stability over time. Indonesia, in contrast, exhibits higher standard deviations, reflecting more pronounced fluctuations in tourist arrivals, particularly during periods of regulatory change and external shocks.

Table 1. Descriptive Statistics of Key Variables (Indonesia and Singapore).

Variable	*Country*	*Mean*	*Std. Dev.*	*Min*	*Max*
Tourist Visit Performance (log)	Indonesia	15.42	0.37	14.68	15.98
	Singapore	16.01	0.21	15.52	16.32
Tourism Regulation Index	Indonesia	0.61	0.08	0.47	0.74
	Singapore	0.79	0.05	0.68	0.86
GDP per Capita (log)	Indonesia	8.94	0.12	8.71	9.13
	Singapore	10.92	0.09	10.71	11.05
Transport Infrastructure Index	Indonesia	0.66	0.07	0.52	0.78
	Singapore	0.83	0.04	0.74	0.89

Source: Author's estimation

Table 1 presents the descriptive statistics of the main variables used in this study for Indonesia and Singapore. On average, tourist visit performance, measured by the natural logarithm of tourist arrivals, is higher in Singapore than in Indonesia, indicating a stronger baseline tour ism demand in the former. Singapore also records a higher mean value of the tourism regulation index, suggesting more consistent and facilitative regulatory frameworks. The relatively low standard deviations across vari- ables indicate limited dispersion over the observation period, supporting the stability of the panel data used in the analysis.

Descriptive statistics for tourism regulation indicators reveal notable differences between the two countries. Singapore consistently scores higher on regulatory facilitation measures, such as visa openness and travel administration efficiency, with relatively small dispersion across years. Indonesia demonstrates a positive upward trend in regulatory indicators but with larger intertemporal variation. This suggests that while regulatory reforms have been implemented, their consistency and predictability re- main comparatively weaker.

Correlation analysis was conducted to examine the initial relationship between tourism regulations and tourist visit performance. The Pearson correlation coefficients indicate a positive and statistically significant relationship between regulatory quality and tourist arrivals in both countries. However, the correlation coefficient is stronger for Singapore than for Indonesia, implying that improvements in tourism regulations are more closely associated with increased tourist visits in Singapore. This finding provides preliminary support for the hypothesized relationship between the variables.

To test the causal relationship, panel data regression analysis was employed. Table 2 reports the regression results using a fixed-effects model, which was selected based on the Hausman test. The results show that tourism regulations have a positive and statistically significant effect on tourist visit performance in both Indonesia and Singapore. The estimated coefficient for tourism regulations is larger in magnitude for Singapore, indicating that regulatory improvements yield a stronger impact on tourist arrivals compared to Indonesia.

Table 2. Pearson Correlation Matrix.

Variable	*(1)*	*(2)*	*(3)*	*(4)*
(1) Tourist Visit Performance	1.000			
(2) Tourism Regulation	0.62***	1.000		
(3) GDP per Capita	0.54***	0.47**	1.000	
(4) Transport Infrastructure	0.49**	0.51***	0.44**	1.000

Source: Author's estimation

The correlation analysis reported in Table 2 shows that tourism regulations are positively and significantly associated with tourist visit performance in both countries. The correlation coefficients indicate mod- erate relationships, implying that stronger regulatory environments tend to coincide with higher tourist arrivals. GDP per capita and transport infra- structure are also positively correlated with tourism performance, con- sistent with tourism demand theory. Importantly, the correlation values among independent variables remain below commonly accepted thresh- olds, suggesting no serious multicollinearity concerns and justifying their inclusion in the regression models.

From Table 1 above, further explanation is needed, as shown in Figure 1, which compares the estimated regression coefficients of tourism regulations on tourist arrival performance in Indonesia and Singapore. The results show a positive and statistically significant effect in both countries. The marginal impact is stronger in Singapore, indicating higher regulatory efficiency and stronger institutional capacity in translating policy interventions into tourism demand.

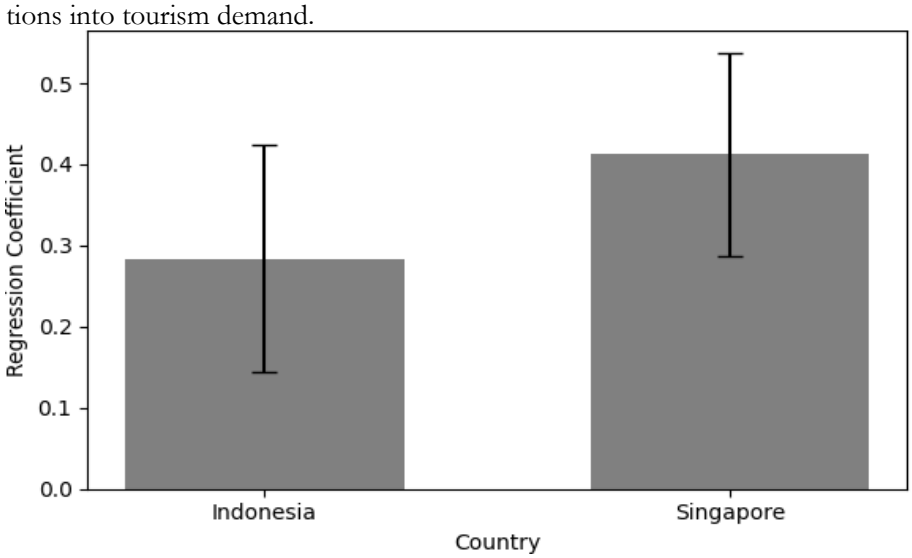

Figure 1. Impact of Tourism Regulations on Tourist Visit Performance.
Source: Author's estimation based on fixed-effects panel regression analyis.

Figure 1 compares the estimated regression coefficients of tourism regulations on tourist visit performance in Indonesia and Singapore, with 95% confidence intervals. The results show a positive and statistically significant impact in both countries, as the confidence intervals do not cross zero. The marginal effect is stronger in Singapore, indicating higher regulatory efficiency and stronger institutional capacity in translating tourism policy interventions into increased tourism demand.

The results of the t-tests for individual coefficients confirm that tourism regulations significantly influence tourist visit performance at the 5 percent significance level. Control variables, such as GDP per capita and transport infrastructure, also exhibit positive effects, although their statistical significance varies between the two countries. The F-test results indicate that the regression model is jointly significant, while the R^2 values suggest that the model explains a substantial proportion of the variation in tourist arrivals.

Table 3. Panel Regression Results: Impact of Tourism Regulations on Tourist Visit Performance Dependent.
Variable: Tourist Visit Performance (log arrivals)

Variable	*Indonesia*	*Singapore*
Tourism Regulation	0.284*** (0.071)	0.412*** (0.064)
GDP per Capita	0.196** (0.083)	0.231** (0.091)
Transport Infrastructure	0.143* (0.078)	0.189** (0.074)
Constant	9.214*** (1.986)	11.037*** (1.742)
Observations	48	48
R^2 *(Within)*	0.63	0.71
F-statistic	18.42***	24.36***

Source: Author's estimation

The core empirical results are reported in Table 3, which presents fixed-effects regression estimates for Indonesia and Singapore. The Hausman test results support the use of fixed-effects estimation, indicating that unobserved country specific characteristics are correlated with the explanatory variables. The regression results reveal that tourism regulations exert a positive and statistically significant effect on tourist visit performance in both contexts. Specifically, a one-unit increase in the tourism regulation index is associated with an estimated 0.284 increase in log tourist arrivals in Indonesia and a larger 0.412 increase in Singapore, holding other factors constant.

These findings confirm the proposed hypothesis that tourism regulations positively influence tourist visit performance. The stronger coefficient observed for Singapore indicates that regulatory effectiveness is more pronounced in destinations with higher institutional capacity and policy coherence. This result underscores the importance of governance quality in amplifying the economic returns of regulatory interventions within the tourism sector.

In addition to regulatory effects, GDP per capita demonstrates a positive and statistically significant association with tourist arrivals in both countries. This finding suggests that higher levels of economic development enhance tourism demand, either through improved destination image, higher investment capacity, or better service quality. The impact of GDP per capita is slightly stronger in Singapore, reflecting its advanced economic structure and global connectivity.

Transport infrastructure also exhibits a positive influence on tourist visit performance, although the magnitude of the effect differs across countries. In Indonesia, the coefficient is statistically significant at the 10 percent level, while in Singapore it reaches significance at the 5 percent level. This difference highlights the role of integrated and high-quality transport systems in reinforcing the effectiveness of tourism policies, particularly in urban and highly connected destinations.

The overall explanatory power of the models is relatively high, with within R-squared values of 0.63 for Indonesia and 0.71 for Singapore. These values indicate that a substantial proportion of the variation in tourist visit performance is explained by tourism regulations, economic conditions, and infrastructure variables. The F-statistics are statistically significant in both models, confirming the joint relevance of the explana- tory variables.

4.2. Discussion

The findings of this study are consistent with public policy theory and institutional theory, which posit that effective and predictable regulatory frameworks reduce uncertainty, lower transaction costs, and enhance destination attractiveness. The stronger regulatory impact observed in Singapore aligns with the argument that high quality institutions amplify the effectiveness of policy interventions. In contrast, Indonesia's weaker but still significant regulatory effect reflects challenges in policy coordination and implementation capacity, as emphasized in institutional economics lit- erature.

The results also support tourism demand theory, which highlights the importance of non-price factors such as administrative simplicity, travel facilitation, and regulatory transparency in shaping tourists' destination choices. The stronger association between tourism regulations and tourist arrivals in Singapore suggests that tourists respond more positively when regulatory systems are efficient, consistent, and technologically integrated.

In comparison with previous empirical studies, the findings align with research by [20] and [19], which identified institutional and policy-related variables as significant determinants of tourism demand. Similarly, the results corroborate [6], findings that facilitative tourism

regulations accelerate recovery and growth in international tourist arrivals. However, this study extends prior research by offering a direct cross-country comparison, rather than focusing on single- country or aggregate regional analyses.

Some differences emerge when compared to studies that report mixed or negative effects of regulation on tourism performance. These discrepancies may stem from differences in the type of regulation analyzed. While some studies focus on restrictive or environmental regulations, this study emphasizes facilitative and administrative tourism regulations. This distinction is crucial, as not all regulations affect tourism demand in the same way. Contextual factors such as governance capacity, digitalization, and inter-agency coordination likely mediate regulatory outcomes.

From a policy perspective, the findings underscore the importance of regulatory quality rather than regulatory quantity. For Indonesia, the results suggest that continued efforts to simplify visa procedures, harmonize national and regional tourism regulations, and improve enforcement consistency could significantly enhance tourism performance. For Singapore, the results validate existing regulatory strategies and highlight the importance of maintaining policy adaptability and service efficiency to sus- tain competitiveness.

In terms of theoretical contribution, this study strengthens the empirical linkage between tourism regulations and tourist visit performance within a comparative institutional framework. By demonstrating differential regulatory impacts across countries, the research contributes to a more nuanced understanding of how institutional context conditions tourism policy effectiveness. This addresses a notable gap in the tourism policy and governance literature.

Despite its contributions, this study has several limitations. First, tourism regulations are measured using aggregated indices that may not fully capture the complexity of specific policy instruments. Second, the analysis does not explicitly account for behavioral factors such as tourist perceptions or risk attitudes. Third, the focus on two countries limits the generalizability of the findings. Future research could expand the analysis to additional countries, incorporate perception-based indicators, or apply alternative methodological approaches such as difference-in-differences or structural equation modeling to further validate the results.

5. Conclusions

This study examined the impact of tourism regulations on tourist visit performance through a comparative quantitative analysis of Indonesia and Singapore. The findings provide robust empirical evidence that tourism regulations play a significant and positive role in shaping tourist arrival performance in both countries. However, the magnitude and effectiveness of this impact differ substantially, reflecting variations in institutional quality, regulatory efficiency, and policy implementation capacity. Singa- pore demonstrates a stronger and more consistent regulatory effect on tourism performance, indicating that well-coordinated, transparent, and facilitative regulatory frameworks are more effective in stimulating tourism demand than regulations that are fragmented or unevenly enforced.

The results contribute to tourism governance and institutional theory by confirming that regulations function not merely as control mechanisms but also as strategic instruments to enhance destination competitiveness. By integrating regulatory variables with economic and infrastructure controls, this study advances the empirical understanding of how policy environments interact with structural factors to influence tourism outcomes. The comparative perspective adopted in this research fills an important gap in the literature, which has predominantly focused on single country or region-specific analyses, and demonstrates the value of cross- national approaches in tourism policy evaluation.

Overall, this study underscores that regulatory quality rather than regulatory quantity is a decisive factor in tourism performance. Countries seeking to strengthen tourism recovery and resilience in the post-pandemic era must therefore move beyond policy proliferation and focus on regulatory coherence, adaptability, and service orientation.

Author Contributions: Apri Kuntariningsih conceived the study, formulated the research questions, and designed the comparative research framework on tourism regulations and visit performance in Indonesia and Singapore. She led the data collection process, including document analysis and stakeholder interviews in Indonesia, conducted the primary qualitative and comparative analysis, and prepared the original manuscript draft. The second author coordinated data collection and policy review in Singapore, contributed to cross-country comparative interpretation, and supported the development of the regulatory analysis model. The third author strengthened the theoretical foundation, particularly in tourism governance and regulatory impact assessment, performed critical revisions of the manuscript, and ensured

methodological rigor and consistency. All authors contributed to interpreting the findings, revising the article critically for intellectual content, and approving the final manuscript for submission.

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Data Availability Statement: The data supporting the findings of this study are not publicly available due to privacy and ethical restrictions related to interview participants and institutional documents. The qualitative data generated and analyzed during the current study, including interview transcripts and policy documents, are available from the corresponding author upon reasonable request and subject to approval in accordance with institutional ethical guidelines. No publicly archived datasets were generated for this study.

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