Local Transport and Tourism Promotion in Remote Island Regions

Yuka KATAOKA [a], Mikio TAKEBAYASHI [b], Hiromichi YAMAGUCHI [c]

[a] *Department of Environmental Design, Ehime University, Ehime, 790-8577, Japan*
[a] *E-mail: kataoka.yuka.kq@ehime-u.ac.jp*
[b] *Graduate School of Maritime Sciences, Kobe University, Kobe, 658-0022, Japan*
[b] *E-mail: takebaya@kobe-u.ac.jp*
[c] *Institute of Science and Engineering, Kanazawa University, Kanazawa, 920-1192, Japan*
[c] *E-mail: hyamaguchi@se.kanazawa-u.ac.jp*

Abstract: Public transportation is often poor on remote islands, and local transportation for tourists is not well developed, but variations in local transportation have not been noted.

In this study, we conducted an analysis focusing on the relationship between local transport on remote islands, the activities and satisfaction of visitors, and the intention to visit. The results showed that the enhancement of intra-island transport had a positive impact on the activity of visitors. In addition, since various modes of transport were selected in cases where the number of places visited during a stay was high, it was suggested that the satisfaction of transport modes had an impact on the number of places visited. In addition, it was suggested that in the promotion of tourism on remote islands, if the number of places visited by visitors is to be increased, it is necessary to ensure the satisfaction of personal use transport modes.

Keywords: Remote Island, Local Transport, Tourism, Amami-Oshima Island (Japan)

1. INTRODUCTION

Remote island regions are known for reflecting diverse cultures shaped by regional relationships, though some of these cultures are gradually disappearing. Due to their isolation by the sea, these regions often face serious challenges in daily life. In Japan, the government supports these regions by improving the quality of life for residents through the maintenance of transportation, medical, and social service infrastructure. Despite these significant efforts, the population is decreasing, and aging is progressing more rapidly than in other parts of mainland Japan. Therefore, more region-specific measures should be implemented, taking into account the unique challenges faced by each remote island region.

Over the past few decades, not only governments but also private sectors have been making efforts to address these serious issues by taking actions to enhance interactive relationships within regions. One notable event is the Setouchi Art Exhibition, which is held every two years. Such events—most of which are supported by public sectors—can promote tourism.

However, supportive initiatives should focus not only on promoting tourism but also on improving the service level of transportation.

Regarding air transport, the International Civil Aviation Organization (ICAO) argues that air services for remote islands should be urgently improved in alignment with the Sustainable Development Goals (SDGs) (ICAO, 2019; Hooper, 2020). Therefore, improving transport services for remote islands can be regarded as one of the most pressing global issues. Conversely, when initiatives to promote remote islands succeed, the demand for intra-regional transport increases. Unfortunately, many local public transport services have recently been

suspended due to population decline, which has led to a deterioration in service levels, even as the number of inbound travelers to these islands continues to grow.

Another serious issue concerns tourism itself. As the number of inbound travelers increases, the use of rental cars will increase, potentially damaging the natural environment and the unique ecosystem of the islands. This presents a significant dilemma.

Striking a balance between preserving the local environment and promoting the local economy through tourism is in high demand. A crucial factor in achieving this balance is understanding the behavior of inbound tourists. In particular, local transport services play a vital role in enhancing tourist satisfaction, as they are directly linked to the fulfillment of their travel objectives.

In this context, our research aims to analyze the behavior of inbound travelers, with a specific focus on their use of local transport.

2. LITERATURE REVIEW

Over the past ten years, transport services for remote and small-city areas, such as island regions, have been quite poor and fragile. These markets are not highly profitable, and as a result, carriers are unwilling to voluntarily improve their service levels. However, this issue poses significant challenges in terms of the United Nations Sustainable Development Goals (SDGs). The International Civil Aviation Organization (ICAO) has emphasized the need for research on aviation services for Pacific Small Island Developing States (PSIDS) since the United Nations introduced the SDGs (ICAO, 2019; Hooper, 2020). Despite some active efforts led by ICAO, no major progress has been made in improving the situation in these areas. Thus, advancements in transport services for remote island regions remain limited.

Although transport services for remote areas, including islands, represent a relatively small market compared to major markets such as those related to Tokyo, significant research has been conducted in this field. One of the earliest studies focusing on air services for remote areas is Özcan (2014), which examined the importance of air transport in sustaining daily life in these regions. In the context of Japan, Nakade and Takebayashi (2015) analyzed the level of transport connectivity between remote areas and the mainland. Their study explicitly addressed island regions such as the Amami Islands in southern Japan and the Izu Islands in southeastern Japan. They highlighted that government support for maintaining transport services in local areas has had a positive impact on traffic volumes to islands with smaller populations. Regarding transport infrastructure, Adler et al. (2013) discussed the sustainability of small local airports, which play a crucial role in supporting local economies.

These studies examined the level of service in connecting major cities with remote areas. Additionally, research has also been conducted on issues related to local transport services within remote areas. Spandonide (2017) highlighted difficulties in Australian rural areas, such as high supply chain costs and limited access to essential services and economic participation. Zenelis (2022) addressed poor connectivity for remote islands in eastern Greece, focusing specifically on air transport. Lekakou et al. (2021) and Kizos et al. (2023) pointed out inequalities in transport costs for island transport. These studies collectively emphasized the necessity of improving transport infrastructure for remote areas.

The problems extend beyond connectivity between remote areas and major cities; intra-rural and island transport also faces serious issues. White (2011) discussed the importance of improving local transport services in rural and remote markets, particularly for daily life. Kuklina et al. (2022) underscored the significance of transport accessibility for residents in rural

areas of eastern Russia. They argued that improving the economic situation through enhanced transport connectivity and geographical positioning would be beneficial for local communities, despite concerns about potential environmental impacts.
Regarding Asia, Dewanti and Parikesit (2009) examined the service level of rural transport in Indonesia. They argued that the mere presence of public transport in rural areas is more crucial than its service quality in general. Wahyono et al. (2016) emphasized the vital role of inter-island transport, particularly cargo shipping, in archipelagic countries such as Indonesia, noting that capacity remains severely limited.

To improve well-being in remote areas, it is essential to enhance not only connectivity between rural areas and major cities but also local transport, particularly to promote inbound travel demand. However, research from this perspective remains scarce.

3. WEB QUESTIONNAIRE SURVEY

3.1 Profile of the target area

The target site for this study was Amami-Oshima Island, Japan. Amami Oshima is a typical island region located 380 km southwest of the main island of Kagoshima prefecture in Kyushu, Japan. The population is estimated at just over 66,000, and around 70 percent of Amami Oshima's 712 square kilometers are mountainous, with densely forested slopes rising sharply from the shoreline. It has a subtropical maritime climate (average annual temperatures exceed 20°C and average annual precipitation exceeds 2,800 mm) and is frequently affected by typhoons and heavy rainfall. The island has a rich natural environment and is home to a number of species endemic to the region such as the Amami rabbits (*Pentalagus furnessi*). The island also contains Japan's largest evergreen broadleaf forest and second-largest mangrove forest. Amami is registered as a World Heritage (nature category) in 2021 and they expect more tourists, while the number of tourists slowly increases.

In addition to direct flights (jet) from Kagoshima Airport, direct flights (jet) from Tokyo (Haneda) and Osaka (Itami) are operated. For marine transportation, a ferry service operates daily from Kagoshima Port via Amami-Oshima and Tokuno-shima, and finally to Naha Port in Okinawa. The time required from Naze to Kagoshima is 50 minutes by air and 11 hours by sea.

3.2 Survey Methodology

In this study, we surveyed the behavior of inbound travelers from metropolitan areas in Japan, specifically the Tokyo and Osaka metropolitan areas, to Amami-Oshima Island. We conducted a web-based survey on the behavior of 206 individuals who visited Amami-Oshima within the past three years, as determined through a screening test. The respondents' profiles are summarized in Table 1.

Table 1. Preconditions of the web-based questionnaire

Breakdown of Respondents	Example of content (n=206)
1)Sample	206 respondents (People who have been to Amami Oshima)
2) Gender	Male (72), Female(134)
3) Age boundaries	10s(6),20s(31), 30s(47), 40s(48), 50s(44), 60and over(30)

3.3 Questionnaire Items

Our research aims to reveal the relationship between local transport conditions and inbound tourists' behavior. The list of questions is shown in Table 2. In particular, we allowed multiple answers for the questions regarding the purpose of the visit (Q1) and the transport modes used on the island (Q7), as travelers may use a combination of transport modes.

Table 2 Content of web-based questionnaire

Questions for all members	
Question Items	Options
Q1) Purpose of Visit	Sightseeing, Nature experience (eco-tour, etc.), Rest (healing), Sports, Work (Research, etc.), Homecoming
Q2) How many times have you visited?	1st, 2nd, 3rd, 4th, 5th or more
Q3) Days of one's stay	Day trip, 1 night, 2 nights, 3 nights, 4 nights, 5 nights or more
Q4) Number of accompanying persons	None, 2 people, 3-4 people, 5 or more people
Q5) Accommodation Type	Business hotel, Guest house, Resort hotel, Resort villa, Cottage rental, Bed and Breakfast（B＆B）, Camp, Home of a family member or acquaintance
Q6) Number of stops during your stay	Did not go out, 1-3 locations, 4-5 locations, 6 locations or more
Q7) How to get around the island (between lodging and destination)	Cab, Cab (all-day charter), Bus (local bus), Bus (tour bus), Rent-a-car, Rent-a-bike, Rent-a-cycle, walking, Transportation by acquaintance
Q8) How satisfied were you with the transportation on the island during your stay? (Variations, ease of use, etc.)	Satisfied, Somewhat satisfied, Somewhat dissatisfied, Dissatisfied, Not using
Q9) Would you like to go back?	I would like to go there again, I'm a little tempted to go back, I'm a little afraid I don't want to go there anymore, I don't want to go there anymore.

4. SURVEY RESULTS

4-1. Local transport and Tourist Activities
(4) Local transport and number of spots stopped

Table 3 presents the results illustrating the relationship between the choice of local transport modes and the number of spots visited during the stay. This study did not ask about the length of stay at each location visited during the trip, specific activities, or the quality of the trip. Therefore, the more locations visited, the more active the traveler is defined to be.

These results indicate that travelers who visited six or more spots primarily used rental cars,

followed by taxis and scheduled buses. A similar trend is observed among travelers who visited one to three spots. Since rental car usage accounts for the majority, the key to understanding inbound travelers lies in how rental cars are combined with other local transport modes.

Table 4 shows a cross-analysis of the relationship between the number of places visited during the stay and the level of satisfaction with local transportation. In terms of satisfaction with local transportation, those who responded “satisfied” were most likely to have visited 4-5 locations. This was followed by those who visited 1-3 places and those who visited 6 or more places.

For those who visited more than 6 places during their stay, the evaluation of satisfaction with local transport was scattered.

On the other hand, of the 37 people who answered that they were dissatisfied or somewhat dissatisfied with local transport, 33 of them visited 1-3 places. From these results, there is a correlation between the number of places visited and satisfaction with the means of transport.

Table 5 shows the results of an analysis focusing only on the usage patterns of local transport among those who answered that they were dissatisfied or somewhat dissatisfied with local transport. The majority of those who were dissatisfied with local transport were only users of rental cars, followed by users of taxis only or taxis and buses only. Rental cars in particular are a means of transport that offers a high degree of freedom, not being restricted by the area in which you can travel, but these results suggest the need for an environment that allows the choice of modes other than rental cars.

Table 6 shows the results of a cross-analysis of satisfaction with local transportation by age group. More people of all ages are satisfied with local transportation than are dissatisfied with it. However, focusing on those who are dissatisfied, it is clear that those in their 30s-50s are more dissatisfied than the younger and older age groups.

A cross-analysis was also conducted on the number of visits and satisfaction with transportation in the area. The results showed that overall satisfaction was not low, but 17% of first-time visitors (excluding those who did not use local transportation) were dissatisfied (Table 7).

Table 3. The number of visiting sites and local transport

(n=206)

local transport ＼ number of visiting sites	Cab	Cab (all day)	scheduled bus	chartered bus	rent-a-car	rent-a-bike	rent-a-cycle	walking	Transportation by hotel or acquaintance	Other
0 location	1	0	2	0	0	0	1	1	3	0
1-3 locations	28	2	14	4	39	0	6	11	4	0
4-5 locations	20	7	10	6	44	5	7	8	3	1
6 or more locations	8	5	8	5	32	6	7	9	4	0

Table 4. The number of visiting sites and the degree of satisfaction of local transport

(n=206)

Satisfaction with local transport ＼ number of visiting sites	Satisfaction	somewhat satisfied	somewhat unsatisfied	dissatisfaction	Did not use local transport
0 location	1.2	4	3.2	10	60
1-3 locations	29.4	49.3	48.4	50	20
4-5 locations	49.4	25.3	32.3	20	20
6 or more locations	20	21.3	16.1	20	0

Table 5. The choice of local transport and the degree of satisfaction limited to the respondents of dissatisfaction and somewhat unsatisfied

(n=37)

local transport	Cab	Cab and scheduled bus	Cab and rent-a-car	scheduled bus	chartered bus	rent-a-car	rent-a-car and rent-a-bike	rent-a-car and rent-a-cycle	rent-a-cycle
somewhat unsatisfied or dissatisfaction	5	5	3	2	1	19	1	1	1

Table 6. Age group and the degree of satisfaction of local transport

(n=206)

Satisfaction with local transport Age group ＼	Satisfaction	somewhat satisfied	somewhat unsatisfied	dissatisfaction	Did not use local transport
10-20	18	11	6	1	1
30-40	40	35	11	7	2
50	14	18	10	1	1
≥60	13	11	4	1	1

Table 7. Number of visits and the degree of satisfaction of local transport

(n=206)

Satisfaction with local transport ＼ Number of visits	Satisfaction	somewhat satisfied	somewhat unsatisfied	dissatisfaction	Did not use local transport
1	40	47	13	5	4
2	15	12	8	3	0
3	16	7	4	0	1
4	3	2	1	2	0
≥5	11	7	5	0	0

Tables 8 and 9 summarize the travel patterns of those using rental cars (Table 8) or taxis (Table 9) in combination with other transport modes. The results show that most travelers used a combination of multiple modes of transportation, with regular buses and bicycle rentals being the most frequently chosen modes. The results in Table 8 suggest that transportation options that offer easy-to-use service over short distances, such as regular buses and bike rentals, are useful as secondary local transportation options for travelers who use more personal transportation options over longer distances, such as car rentals.

Table 8. Combination of other means of transportation by car rental users

Rental car users 115 people（91 people：Use of rental cars only）

Other Transportation	Cab	Cab (all day)	scheduled bus	chartered bus	rent-a-bike	rent-a-cycle	walking	Transportation by hotel or acquaintance	Other
the number of people	13	6	9	5	6	14	11	3	1

Table 9. Combination of other means of transportation by taxi users

Cab users 57 people（32 people：Use of cab only）

Other Transportation	rent-a-car	Cab (all day)	scheduled bus	chartered bus	rent-a-bike	rent-a-cycle	walking	Transportation by hotel or acquaintance	Other
the number of people	13	9	15	5	6	8	14	2	0

Tables 10 and 11 summarize the relationship between the number of visited spots and the combination of transport modes. For the analysis, we selected rental cars and taxis as primary modes and examined their combinations with other transport options. We focused on the difference in the number of visited spots between travelers who visited three or fewer spots and those who visited four or more. As a result, no specific pattern was observed for travelers visiting three or fewer spots.

Table 10. Other means of transportation used by car rental customers (number of stops: 3 or less)

Rental car users 39 people（32 people：Use of rental cars only）

Other Transportation	Cab	Cab (all day)	scheduled bus	chartered bus	rent-a-bike	rent-a-cycle	walking	Transportation by hotel or acquaintance	Other
the number of people	2	0	2	0	0	4	2	0	0

Table 11. Other means of transportation used by taxi users (number of stops: 3 or less)

Cab users 25 people（20 people：Use of cab only）

Other Transportation	rent-a-car	Cab (all day)	scheduled bus	chartered bus	rent-a-bike	rent-a-cycle	walking	Transportation by hotel or acquaintance	Other
the number of people	2	0	6	0	0	1	4	0	0

Table 12. Other means of transportation used by car rental customers
(number of stops: 4 or more)

Rental car users 76 people（59 people：Use of rental cars only）

Other Transportation	Cab	Cab (all day)	scheduled bus	chartered bus	rent-a-bike	rent-a-cycle	walking	Transportation by hotel or acquaintance	Other
the number of people	11	6	7	5	7	10	10	3	0

Table 13. Other means of transportation used by taxi users
(number of stops: 4 or more)

Cab users 28 people（12 people：Use of cab only）

Other Transportation	rent-a-car	Cab (all day)	scheduled bus	chartered bus	rent-a-bike	rent-a-cycle	walking	Transportation by hotel or acquaintance	Other
the number of people	11	9	9	5	7	7	10	2	0

On the other hand, travelers who visit four or more spots have several options for local transport. A comparison of Tables 10-11 and 12-13 shows that the use of more personal modes of transportation, such as renting bikes and bicycles, increased significantly compared to those who visited three or fewer spots.

Specifically, among travelers visiting three or fewer spots, only 6.5% use three or more transport modes, whereas this share rises to 14% among those visiting four or more spots—effectively doubling.

(2) Relationship between intention to revisit and number of stops

Table 14. The relationship between the number of visits and the intention to revisit
(n=206)

Intention to revisit ＼ number of visiting sites	I want to revisit	I have a slight desire to revisit.	Somewhat reluctant to revisit.	Wouldn't want to revisit.
0 location	7	2	0	0
1-3 locations	48	30	4	1
4-5 locations	54	16	2	2
6 or more locations	29	11	0	0

Table 14 shows the relationship between the number of places visited during a stay and the intention to revisit. The results show that many of the people who visited “4-5 places” or “6 or more places” during their stay answered that they “want to revisit”. From these results, it can be inferred that the number of places visited during the stay influences whether or not the visitor has the intention of revisiting.

4.2 Causality test

In the previous subsection, we provided an overview of the basic relationships among the elements. In this subsection, we conduct a more detailed analysis of the relationship between revisit intention and other factors. An improvement in revisit intention can potentially lead to an increase in tourist demand. To examine this relationship, we employ Bayesian network analysis, a widely used tool for identifying causal relationships among variables.

Here, to identify the factors that are likely to have a stronger influence on revisit intention and to confirm spatial differences, we conduct simple causality tests between each candidate factor and revisit intention[1].

The following elements are selected for analysis: the number of visits to Amami, the number of nights stayed, the number of sites visited, and the level of satisfaction with specific activities. The testing conditions are defined as follows:

(i) The maximum level of revisit intention is selected (value = 1 indicates the strongest intention);

(ii) The causal relationships between this maximum level of intention and the highest desirable levels of each element are examined.

The results are presented in Table 15.

Table 15 Causality Test 1: Basic Information of Stay to revisit intention

All passengers		
the number of visits to Amami	the number of nights stayed	the number of sites visited
0.4485	0.4840	0.2976
Tokyo		
0.3564	0.3144	0.4390
Kansai		
0.3616	0.2503	0.3423

Note: The values in the list indicate the estimated probability derived from the Bayesian Network causality test.

The results suggest that these elements may have a causal relationship with revisit intention. Overall, the number of visits to Amami and the number of nights stayed appear to have a particularly strong association with revisit intention. In other words, individuals identified as repeat visitors naturally tend to exhibit a stronger intention to revisit.

Table 16 presents the results of the causality test between satisfaction and revisit intention. In this analysis, we focused on the relationship between the level of satisfaction with transport services. The maximum and minimum values represent the probability of the highest level of revisit intention. The difference indicates the change in probability when satisfaction is improved. By comparing these values, we can evaluate whether improvements in transport services are effective in increasing revisit intention.

According to the results, improving satisfaction with both access transport (e.g., flights and ferries) and local transport shows a strong causal relationship with increased revisit intention. Therefore, enhancing transport services is likely to be meaningful for attracting more inbound tourists.

However, there appear to be regional differences between Tokyo and Osaka. Passengers

[1] Although the Bayesian Network causality test is capable of illustrating causal relationships among factors, structural limitations related to the potential factors associated with 'satisfaction' prevented us from conducting a comprehensive test. Future research should address this limitation.

from the Tokyo area tend to be more sensitive to both access and local transport service levels, whereas those from the Osaka area seem less concerned about local transport. This difference may stem from variation in available transport options: passengers from Osaka may face limited choices, while those from Tokyo may have more alternatives. Nevertheless, we cannot confirm this hypothesis at this stage due to a lack of sufficient information. We intend to examine this issue further in future research.

Table 16 Causality Test 2: Satisfaction for Transport to revisit intention

All passengers		
To Amami		
Maximum	Minimum	Difference
0.6722	0.2481	0.4241
Local Transport		
0.6247	0.3000	0.3247
Tokyo		
To Amami		
0.5695	0.2505	0.319
Local Transport		
0.6265	0.2851	0.3414
Kansai		
To Amami		
0.6416	0.2465	0.3951
Local Transport		
0.4961*	0.3129	0.1832

Note: * means that the largest value is obtained in the second-best satisfaction.

In terms of geographical differences, residents of Tokyo appear to place more importance on the number of sites visited compared to those from the Kansai region. This may suggest that enhancing the accessibility or appeal of visiting sites could contribute to an increase in revisit intention.

5. CONCLUSION

In this study, we analyzed the relationship between intra-island transport, visitor activities and satisfaction, and the intention to visit, focusing on remote islands. We applied correlation analysis and a Bayesian network-based causality test to examine the relationship between revisit intention and several factors that play an important role in island tourism. The summary of our findings is as follows:

(i) The factors “number of visits to Amami” and “number of nights stayed” appear to be important for enhancing revisit intention. However, the causal relationships of these factors differ between travelers from the Tokyo and Kansai areas.

(ii) Satisfaction with transportation to Amami and local transportation is significant in increasing revisit intention.

(iii) Improving transportation to Amami is effective for travelers from both areas, whereas improvements in local transportation may have limited impact on travelers from the Kansai area.

Based on these results, we can conclude that improvements in transportation are effective in

attracting more visitors. In particular, local transportation could play a key role in increasing revisit intention, as it is essential for accessing various places on the island. However, it is important to note that the effectiveness of this factor differs between travelers from the Tokyo and Kansai areas. To address this difference, further investigation is necessary; however, the findings also suggest that improvements in local transportation may have only limited effectiveness.

In addition, as a result of analyzing the data focusing on people who use a combination of multiple modes, it was revealed that car rental users and taxi users combine their use of other modes of transport. In particular, it is assumed that local buses and bicycle rentals serve as a complement to secondary means of transportation that cover shorter distances, especially for users of transportation that can handle longer distances, such as car rentals.

These results suggest that, in order to increase the number of places visited by tourists in the promotion of tourism on remote islands, it is necessary to ensure that personal transport modes are available. On Amami Oshima Island, the main transport modes are rental cars and taxis, which have a long transport distance and a high degree of freedom, and in order to increase accessibility to the many natural environments and tourist resources on the island, it is necessary to ensure that transport modes that complement these are available.

The problem of poor transportation in remote areas has been pointed out by Kuklina et al. (2022) and others, but the issue of the variation and effectiveness of the services provided has not been pointed out much. Through this research, we were able to obtain some suggestions about the possibility that the provision of personal-use transportation modes could affect the improvement of visitors' activities and satisfaction.

In this survey, we did not ask for reasons for satisfaction, so we were unable to identify the specific factors that cause dissatisfaction with the island's transportation. In order to improve the island's transportation in the future, it will be necessary to consider the provision of transportation services that take into account the unique environment and tourism characteristics of remote islands.

REFERENCES

Adler, N., Ülkü, T., Yazhemsky, E.: Small regional airport sustainability: Lessons from benchmarking, Journal of Air Transport Management 33, 22-31, 2013.

Dewanti, Parikesit, D., 2009. Challenges on rural public transport service improvement, Proceedings of the Eastern Asia Society for Transportation Studies, Vol. 7.

Hooper, P., 202. Creating a New Aviation Future for Small Island Developing States, ICAO World Civil Aviation Report – Volume 4, 82-90.

ICAO, 2019. Pacific Small Island Developing States Aviation Needs Analysis (PSIDS Study), ICAO.

Nakade, T. and Takebayashi, M., 2015. Empirical analysis on the level of transport services for connecting island areas with mainland, Transportation and Economics, No. 75, 67-78 (in Japanese)

Özcan, I, Ç., 2014. Economic contribution of essential air service flights on small and remote

communities, Journal of Air Transport Management 34, 24-29.

Kuklinaa,M., Filippova, V., Savvinova,A., Fedorova, A., Itegelovac, A., 2022. Influence of transport accessibility on the development of remote areas of residence of the indigenous people of the North, Transport Research Procedia, 63, 41-47.

E. Wahyono, E., Tangkilisan, Y.B., Marihandono, 2016. Development of inter-island shipping as a bridge to Indonesian archipelago, Journal of Maritime Research, Vol. XIII, No. 3, 29-38.

Kizos, T., Zafirelli,S., Spilanis, I., Kavroudakis, D., 2023. A policy tool for island transport cost inequality: exploration of the application of the transport equivalent threshold on Greek islands, Island Studies Journal (https://doi.org/10.24043/isj.404)

Lekakou, M., Remoundos, G., Stefanidaki, E., 2021. Applying the island transport equivalent to the Greek islands, International Transport Forum Discussion Papers, No. 2021/02, OECD Publishing, Paris.

White, P., 2011. Equitable Access: Remote and Rural Communities "Transport Needs," International Transport Forum Discussion Paper, 2011-19.

Spandonide , B., 2017. Sustainable remote Australian transport for living on country and going out bush, International Journal of Rural Law and Policy, No.2, 1-19.
Zenelis, P., 2022. Transport connectivity of remote islands: the case of Kastellorizo, Greece, Journal of Air Transport Studies 13, 39-51.