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## TWO TYPES OF COUNTER-MEASURES AGAINST INBOUND OVERTOURISM IN JAPAN: CASE STUDIES IN KAMAKURA AND KYOTO<sup>1</sup>

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### Abstract

**Purpose.** In this study, destination management organization (DMO) structure and its performance are discussed. Two leading tourist destinations in Japan, Kyoto and Kamakura, are used as a case study to illustrate the types of countermeasures against overtourism. It adheres to the traditional management theory and contingency theory, while expanding on its limitations. Then, advice is given regarding the implementation of new research on DMO structure. Based on the case study, a new DMO study direction is proposed.

**Method.** The context of the article concerns exploring and confirming what happened in DMOs. In this case, a qualitative research method should be appropriate, namely case study. Specifically, a comparative case study was employed because the research is synonymous with the scientific method of discovering and establishing general empirical propositions. However, in our study, the theory building aspect is important.

**Findings.** Based on the case study, the DMO in Kyoto was prompted to employ a new device against overtourism, however, Kamakura passed a legislation regulating entry regulations. An initial hypothesis is made and differences of their organizational structure features are discussed.

**Research conclusions and limitations.** DMO structure would match its performance, however, only one case study was discussed in the research.


**Practical implications.** Although not intended to be prescriptive solutions, the findings of this study could be used as a blueprint for DMO structure design theory. DMO structure should correspond to the kind of destinations developed.


**Originality.** This article advances the knowledge of designing effective DMOs. Their memberships are quite important because they influence what resources and technologies need to be selected when the DMO rationally and reasonably develops the destination.


**Type of paper.** Case study.


**Key words:** Japan DMO, DMO structure, DMO performance, case study

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## Introduction

This study is aimed at developing a hypothesis regarding the relationship between structure of destination management organisations (DMO) and their performance responses to overtourism. Our research question is mainly focused on why countermeasures against overtourism differ according to DMO. Following the case study method, we introduce two types of DMO behaviour that are in contrast with bipolar solutions. Kyoto and Kamakura are two DMOs in Japan. Both are well-known destinations for international as well as domestic visitors. However, their approaches to combating overtourism are quite different, which we speculate can be attributed to different organisational structures.

The research agenda of the study is based on a fairly traditional management theme related to organisational structure and its performance [Burns and Stalker 1961; Lawrence and Lorsch 1967; Woodward 1965]. In the study, a few examples are presented of this matching hypothesis on DMOs and destination management performance, with emphasis on how the management approaches to overtourism in Japan differs. We will demonstrate a few examples of countermeasures against overtourism in Kyoto and Kamakura and formulate a proposal for the organisational structure of DMOs that could be appropriate for destination management strategies.

Since the United Nations Specialized Agency World Tourism Organization (UNWTO) introduced “A Practical Guide to Tourism Destination Management” in 2007, DMOs have become very popular around the world. A DMO is defined as a coalition of many organisations that work together to achieve a common purpose in a certain region. Its role is to integrate the varied goals of local stakeholders and drive their efforts to become a tourist destination into a cohesive strategy [World Tourism Organization 2007, p.2].

In Japan, the introduction of DMOs was slightly delayed compared to its global reputations. The DMO legislation process began in 2015. When they were first introduced in Japan, it was expected that they would act as catalysts for regional economic development. Between 2016 and 2021, 401 DMOs had been registered in Japan, with 173 nominated DMOs awaiting registration in 1,748 municipalities in 47 prefectures [Japan Tourism Agency 2022]. The primary purpose of DMOs in Japan was to re-construct the “earning potential power” in regional areas. The initial purpose behind creating DMOs did not relate directly to tourism development. That was the unique nature regarding the origin of Japanese DMOs: some of them originated from travel bureaus, while others were related to accommodation, transportation and non-profit organisations.

This fact may be related to several existing patterns of destination development by DMOs. Some develop accommodation-intense destinations, while others create historical heritage ones. These are brought about by the focus of

development, which varies and depends upon the origin of the DMOs. In the same vein, the DMO's approaches to countermeasures against overtourism also vary. One DMO employed a high-tech approach (controlling visitor circulation), while another passed rules and regulations (restricted admission).

In this study, we examine two types of countermeasures as case studies, and then pose a hypothesis based on traditional management theory about organisational structure and performance to determine why countermeasures vary among DMOs. To achieve this purpose, this paper is organised into the following sections. First, in next section, we will review earlier and more recent related works, primarily involving organisational structure and its performance. In the review, we will formulate the theoretical framework of this research. Secondly, the methodology and case study settings will be introduced. We employ the case study approach in this research because the nature of the issue has been still evolving and we do not yet know the results of the countermeasures against overtourism in Japan. We will also present the inbound tourist data for Japan from the past 20 years. The data suggest the deadline by which Japanese DMOs needs to prepare a strategy to combat overtourism in Japan. Third of all, we will summarise our findings from the case study and ascertain to what extent our theoretical framework can explain the results. Then, we will discuss the theoretical novelty of our findings. Finally, we will present our conclusions and recommendations for future research.

## **Literature review**

Our research is founded upon three main themes: the organisational structure and performance of DMOs, overtourism, and traditional management theory. Our fundamental framework is based on contingency theory, which, as described in the early works by T. Burns and G.M. Stalker [1961] and Woodward [1965], focused on the matching organisational structures and environmental conditions, including those technological. In these studies, the importance of such matching to achieve high performance is emphasised.

Given this fundamental framework, we expect that the performance of DMOs is influenced by their structures, particularly within the context of counteracting overtourism. Our model is based on such an assumption, and in subsequent sections of this paper, we will review the current scientific debate related to this topic.

### ***DMO structure and its performance***

A DMO is an organisation that has its origins in travel bureaus, municipal governments, unions of accommodation and private companies. It has its own organisational structure as well as a linkage structure to other organ-

isations, the latter being the primary focus of previous research. P. Beritelli, T. Bieger and C. Laesser [2007] focused on the coordinating role played by DMOs. They acknowledged that while DMOs were responsible for promoting and developing tourist attractions, they lacked the authority to bring stakeholders together in a specific region. As a result, they concentrated on the integration level of DMO centrality. Based on corporate governance theory, they distinguished two ideal types of governance structure for DMOs: corporate-based and community-based. Through case studies, they found that an integrated, centrally-managed tourist destination could develop a DMO strategy that was more distinct, focused and differentiated. They also observed that decisions were made more rapidly, implemented more quickly and effectively.

In the same vein, J. Elbe, L. Hallén and B. Axelsson [2009] noted that DMOs have three types of co-operation structures: limited, moderate and broad co-operation. They recognised that the role of the DMO was to market (i.e., promote and develop attractions) in a specific region or destination. They also recognised that the DMO was deficient in both financial resources and personnel, rendering it incapable of adequately promoting and enhancing the appeal of regional tourist attractions. Consequently, a concerted effort between the DMO and local stakeholders, characterised by collaboration rather than competition, was deemed imperative for the development of competitive tourist destinations. They formulated their ideal DMO using six case studies as supporting evidence.

In their seminal study on DMOs and their performance, F. d'Angella and F.M. Go [2009] focused on collaborative tourism marketing practice, particularly the relationship between DMOs and tourism stakeholders such as hotels, restaurants, heritage sites and transportation. The DMO structure was regarded as a collaborative network. Although they defined DMO performance as minimising risks while maximising stakeholder rewards, they also paid attention to the DMO's social aspects by attempting to assess collaborative tourism marketing through the lens of stakeholder theory, particularly the relationship between the DMO and tourism firms, within the context of two comparative case studies, Barcelona and Vienna. In their study, a DMO seeks to collaborate (or "orchestrate," to use the authors' terminology) in its decision-making on design, organisation and the management of relationships in the network, on which the economic performance of both the DMO and its stakeholders depend.

These studies allow to imply that the structure of the DMO is related to its yield performance; namely, that the specific structure (i.e., corporate-based or broad co-operation) can achieve, for instance, high DMO performance. We employ this logic in this study.

### ***Overtourism research***

The problem of overtourism arises when a destination receives an excessive influx of tourists, exceeding its capacity in terms of accommodation, attractions and infrastructure. T. Mihalić [2020] regarded overtourism as the acceleration and growth of tourism supply and demand, resulting in the destruction of cultural attractions and negative impact on the destination's social and economic environments. Based on this understanding, she conceptualised the complex phenomenon of overtourism and offered suggestions for sustainable tourism that involve responsible DMO management at a specific destination. She identified two paradigms commonly employed in discussions on overtourism: one that addresses its positive impact, and the other its negative influence.

The positive impact involves conventional, optimistic thinking, which maintains an accepting attitude towards visitors and suggests that overtourism can be solved through countermeasures such as the peak-shift method, which is similar to dynamic pricing. This approach aims to disperse visitors both spatially and temporally. The notion that destinations should seek to attract more visitors by promoting their amenities is natural, given that many destinations rely heavily on tourism to drive economic growth [Dwyer *et al.* 2014].

In contrast to the negative impact perspective, the sustainable perspective implies that discussions regarding overtourism have not adequately considered the impact on regional residents and the resulting changes to both the physical and cultural environments of destinations [Viega *et al.* 2018]. In recent overtourism studies, divergence from the conventional perspective has been noted, as reducing or restricting the number of visitors from a sustainable standpoint has been proposed, acknowledging the potential for tourism to negatively affect the lives and culture of residents [Pinke-Sziva *et al.* 2019].

However, in a comprehensive literature review by A. Capocchi *et al.* [2019], it has been suggested that resolving overtourism for all stakeholders is a challenging task. While most sectors of the tourism industry exhibit a favourable economic perspective towards overtourism, residents, adopting a social perspective, tend to adopt a critical stance.

This result has implications for the role of DMOs, as it compels them to adopt different strategies. While DMOs are traditionally viewed as promotion agencies from one perspective, they can be viewed as city management authorities from the other. We will employ this conceptual framework to develop our theoretical hypothesis in the following section.

## Matching hypothesis

We have identified two key findings pertaining to DMO structure and countermeasures against overtourism. Firstly, the performance of a DMO may relate to its organisational structure. While prior studies have been focused on DMO structure as comprising network linkages [Fyall and Garrod 2020], in the present study, we examine the internal structure of the DMO to comprehend the relationship between organisational structure and performance. Secondly, DMOs employ a variety of countermeasures against overtourism [Dodds and Butler 2019].

Although there are three main countermeasures – mitigation, reduction and prevention – the selection of a particular approach by a DMO is not theoretically trivial; rather, the DMO's structure logically aligns with its countermeasures. For instance, a DMO with flexible structure might tend to choose mitigation measures, while a DMO with hierarchical structure, may prefer preventive measures. As previously discussed, we propose that a matching hypothesis can be developed by using a contingency theory framework. According to findings from some recent works, unless only one factor is specified, the performance of a firm is determined by organisational factors [Gunday *et al.* 2011; Hansen and Wernerfeldt 1989]. In all of these studies, it has been suggested that organisational performance should match organisational factors, which are included in its structure. Based on this reasoning, we postulate an adaptive relationship between the DMO's organisational structure and its anticipated performance.

DMOs may have varying structures – depending on the composition of their boards, their origin, objectives and accomplishments – which could have impact their outcomes. Additionally, DMOs can also be measured by conventional structure dimensions: formalisation, centralisation and complexity.

According to J.L. Gibson, J.M. Ivancevich and J.H. Donnelly Jr [1994, pp. 496-497], formalisation concerns the extent to which expectations regarding the means and ends of work are specified, written and enforced. An organisational structure described as highly formalised would be one with rules and procedures to prescribe what each individual should be doing; that is, delegated specialisation. Centralisation refers to the location of decision-making authority in the hierarchy of the organisation. More specifically, the concept refers to delegation of authority among the jobs in the organisation (centralization – decentralisation). Complexity is the direct outgrowth of dividing work and creating departments. Specifically, the concept refers to the number of distinctly different job titles or occupational groupings, and the number of distinctly different units or departments. The fundamental idea is that organisations with many different kinds of jobs and units create more complicated managerial and organisational problems

than do those with fewer jobs and departments. Complexity, then, relates to differences among jobs and units (horizontal – vertical). Employing these dimensions allows us to position the hypothesis so as to investigate traditional research approaches.

Based on these traditional understandings of the matching hypothesis, each organisation can be polarised by each dimension [Lawrence and Lorsch 1967]. In Table 1, our hypothesis is shown.

**Table 1.** Matching hypothesis of DMO structure and countermeasure selections

<b>Structures</b>	<b>Hierarchical</b>	<b>Flexible</b>
Formalisation	Specialised (rigid and rigorous)	Delegated (flexible and ambiguous)
Centralisation	Centralised	Decentralised
Complexity	Vertical	Horizontal
Origin	Travel bureau, municipal office	Companies, private organisations
Counter-measure	Regulation, rule	New technology

**Source:** The framework based on Gibson et al. (1994), and elements in the table by authors.

In relation to the issue at hand, it is assumed that the DMO structure and its counter-measure must logically match. For instance, a DMO with a flexible structure might tend to choose mitigation counter-measures; in contrast, a DMO with a hierarchal structure might prefer to choose preventative counter-measures.

Through a case study examining the cities of Kamakura and Kyoto, in the remainder of this paper, a discussion will be introduced and different countermeasures against overtourism explored.

### **Case study setting**

In this section, we explicate our research methodology and present our case study, which is exploratory and conceptual in nature. The hypotheses are predicated upon the concepts drawn from contingency theory, specifically the work by O.R. Lawrence and J.W. Lorsch [1967]. With the aid of this conceptual framework, we discern the salient factors causing alignment between DMO structures and counter-measures against overtourism. The empirical aspect of our study entails an exploratory case study conducted in Kyoto and in Kamakura, Japan, which serves as a comparability counter-measure to the framework propounded herein.

Our case study is focused on the DMO Kyoto and Kamakura Municipal Government. Both are famous tourist spots in Japan, where tradition-

al Japanese town landscapes, temples and shrines can still be seen. Prior to COVID-19 in 2020, more than 50 million tourists visited Kyoto and 20 million tourists visited Kamakura. Since 2019, therefore, it is possible that these cities have coped with overtourism. In this paper, two different counter-measures are presented – one by Kyoto and one by Kamakura – and a hypothesis is developed, explaining why such differences occur.

Our source for this study includes academic tourism literature and tourism practice surveys, newspapers, business magazines and personal contacts. The academic sources were accessed through depositories and online databases accessible via our universities' academic library service, Google and ResearchGate. In Table 2, this information is summarised, the data mainly being from 2019.

**Table 2.** Basic information for Kyoto and Kamakura

	<b>Kyoto</b>	<b>Kamakura</b>
Mayor	Daisaku Kadokawa (68)* 3 consecutive periods	Takashi Matsuo (47)* consecutive periods
Prefecture	Kyoto Capital city of Kyoto	Kanagawa 11 <sup>th</sup> city out of 33 cities
Population (2022, estimated)	1,449,683	172,526
Property area (km <sup>2</sup> )	827.83	39.67
Characteristics of properties	Inland, basin	Seaside, surrounded by hills
Location	370 km from Tokyo 43 km from Osaka	44.8 km from Tokyo 373 km from Osaka
Accessibility	Shinkansen (Super Express). Three train lines from surrounding big cities. Highways and interstate roadways.	Train line. Highway.

\*: As of 2022, Mayor Kadokawa is 71 years-old and Mayor Matsuo is 49 years-old.

**Source:** Statistical Bureau in Japan [2023].

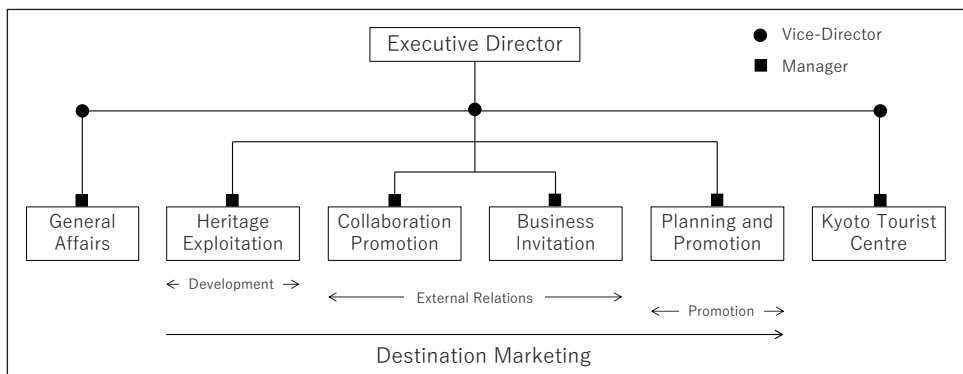
### ***DMO origin and structures***

As discussed above, the Japan DMO operated on a registration system. While any type of organisation, private company or NGO/NPO, and even groups, can register with the Japan DMO, they will be assessed initially as a “nominated DMO”. The nominated DMO reports its activity for a year to the Japan Tourism Agency, at which point, it will be judged for promotion [Japan Tourism Agency 2021].

DMO Kyoto was founded as the Kyoto Tourist Bureau 15 years after WWII, in 1960 (legislated in 1961). The Bureau was a membership organisation and included only organisations that worked for tourism development in Kyoto in collaboration with Kyoto City, the prefecture, accommodation, transportation and several stakeholders. In 2017, the Bureau was designated as the registered DMO Kyoto, and was formally named the Kyoto City Tourism Association. Currently, the board of committee comprises mainly presidents and CEOs of private companies in Kyoto. The number of memberships reached 1,471 in 2022 and the operation budget is JPY 780 million (EUR 5.57 million) [Kyoto City Tourism Association 2018].

The organisational structure of the Kyoto City Tourism Association was expounded in a 2018 report by the association [Kyoto City Tourism Association 2018]. The structure is characterised by a small hierarchy composed of various sections. As illustrated in Fig. 1, the structure is subdivided into three levels—operation, managing and direction—with four sections responsible for marketing functions. The DMO marketing is implemented by four sections, each of which has its own function. The heritage exploitation section is primarily focused on discovering amenities that include historical as well as natural landmarks, and frequently creates new amenities, such as tourist sites, pathways and even artificial features, such as shopping centres and streets.

These developed amenities are substantiated by external relations, such as hotels, transportation or advertising companies, novelty and souvenir companies, and so on. Due to the fact that DMO Kyoto is neither a manufacturer nor a publisher, these relations are sustained through collaborative promotion and business invitation sections. New amenities are then posted by the planning and promotion section. A unique feature of DMO Kyoto's organisational structure is that it integrates these four marketing-relat-



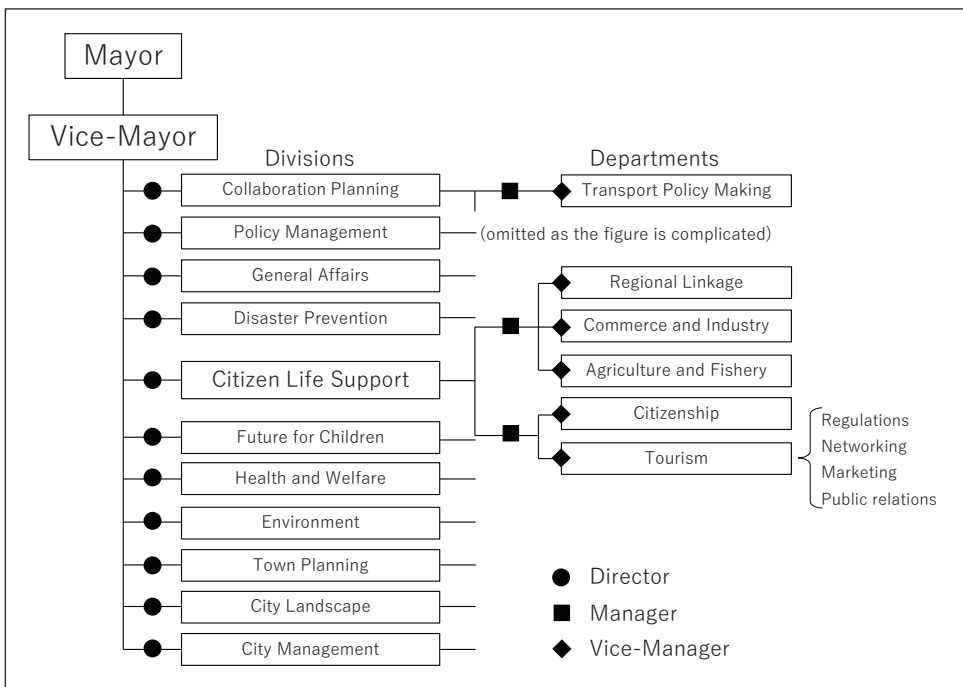
**Figure 1.** Organisational Structure of DMO Kyoto

**Source:** Organisation of DMO Kyoto, <https://www.kyokanko.or.jp/history/> (date of access: 20 Jan. 2023).

ed functions under one vice-director. Because of the short communication length from on-site to director, this system is well-suited for the exploration and adoption of new technologies.

Although some groups and organisations are currently registering as nominated DMOs [Application of DMO Registration 2022], Kamakura does not have a typically structured DMO. So far, the traditional travel bureau has promoted some of the tourist spots in Kamakura. Therefore, the division of the Citizen Life Support department in the Kamakura municipal government is responsible for tourism management and, therefore, acts as DMO. Here, tourism management involves the enrolment of ordinances and rules, while implementing annual events (e.g., ritual festivals and fireworks) [Kamakura City Tourism Emerging and Promotion Centre 2009; 2010].

In Figure 2, the organisational structure of Kamakura municipal government is shown, with focus on its tourism-related departments. The entire organisation is a complex hierarchy, as it is a municipal government with more than 17 divisions. Each division has several departments, but here, we need only information about the Citizen Life Support division, which contains five departments: regional linkage, commerce and indus-



**Figure 2.** Organisational Structure of Kamakura Municipal Government

**Source:** Kamakura City [2020].

**Note:** Each division consists of other departments, but these are omitted in the figure.

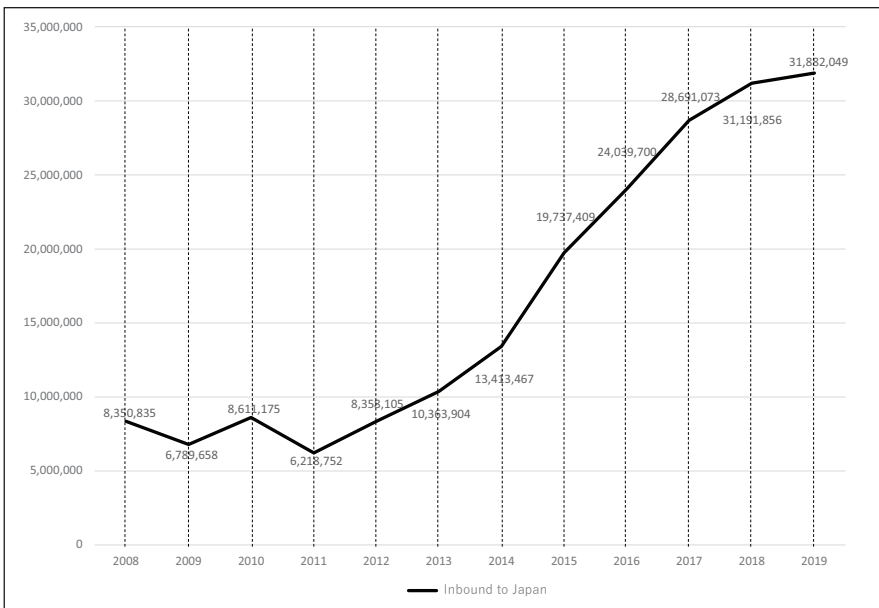
try, agriculture and fishery, citizenship and tourism. Each department has a vice-manager who supervises on-site work. Each department is monitored by a manager. There are two managers in the Citizen Life Support division and they are overseen by its director.

This hierarchical structure inherently limits the manager's span of control and authority through the official job description. Even at the department level, all official meetings are presided over exclusively by the director of the Citizen Life Support division [Kamakura City Tourism Emerging and Promotion Centre, 2009], indicating a high degree of centralisation and formalisation. Furthermore, due to the tourism department's approach of assuming all roles as though they comprise one marketing unit, the resulting complexity is horizontally high and potentially ambiguous.

Theoretically, the differences in organisational structure between DMO Kyoto and Kamakura municipal government may result in the development of different counter-measures against overtourism. These counter-measures are reviewed in the next section.

### *Overtourism and its counter-measures*

Overtourism in Japan was recognised around 2013, when inbound visitors exceeded 10 million (Fig. 3). One reason for such overtourism was the boom in the Chinese economy. Since 2013, the volume of inbound visitors has



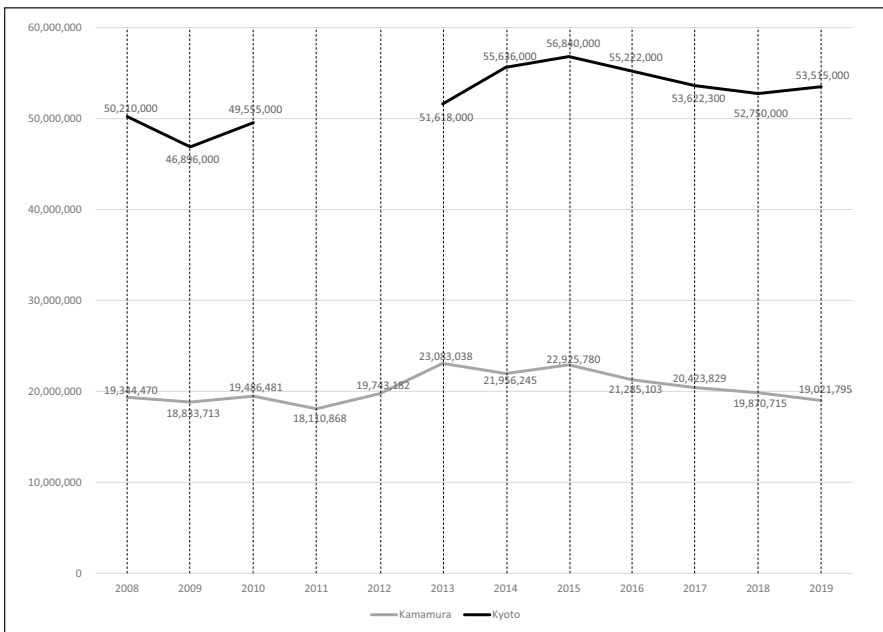
**Figure 3.** Number of inbound tourists to Japan

**Source:** Japan National Tourism Organisation (10 Aug. 2022).

grown rapidly. In just three years, the number of visitors doubled, with over 24 million visitors in 2016. As discussed above, Kyoto and Kamakura are Japan’s most popular destinations, with most visitors travelling to these destinations.

In Kyoto, overtourism was recognised in 2013, when the number of visitors exceeded 50 million (see Fig. 4). Problems were initially evidenced by an increase in littering and noise from an increasing number of private accommodations, such as Airbnb. Residents complained that buses were crowded in local areas, preventing local residents from using them: the silent and calm atmosphere in temples and shrines was compromised; foreign tourists chased “*maiko geisha*” and trespassed onto private property. Visitors often violated local rules and customs [Nihon Keizai Shinbun 2019].

Kamakura also acknowledged its overtourism problem in 2013, when the number of visitors exceeded 20 million (Fig. 4). Compared to Kyoto, Kamakura is smaller city; it is surrounded by hills and is located next to the ocean. Initially, over-tourism was evidenced by severe traffic congestion. Even emergency vehicles were unable to pass quickly because of congestion on the roads.



**Figure 4.** Number of visitors to Kyoto and Kamakura

**Source:** Kyoto Prefecture Tourism Division (2019); Kamakura City Tourism Department (2022) (18 Aug. 2022).

**Notice:** Kyoto did not announce the number of visitors for 2011 and 2012.

One event took place in 2017 prior to the establishment of the counter-measures in Kyoto and Kamakura: the Ministry of Land, Infrastructure, Transport and Tourism announced that it had selected “Tourism and Transportation Innovation Areas” with which to experiment and implement overtourism counter-measures, such as traffic demand control, including area pricing, the use of information and communication technology (ICT), as well as artificial intelligence (AI). The objective of these measures was to create attractive tourist destinations towards the realisation of an “advanced tourism country” [Mai-Navi News 2017].

Kyoto and Kamakura were selected as areas in which to conduct experiments on area tourism congestion counter-measures, which included the use of ICT to monitor the movement of people and vehicles. Both cities were chosen because they had narrowed down the areas where they would conduct area-wide overtourism counter-measures based on local issues and past efforts.

AI learns and analyses the history of past traffic congestion and uses advanced technologies to collect data regarding the movement of people and vehicles. AI detects changes in traffic and predicts the occurrence of traffic congestion, while ICT optimises the flow of people and vehicles based on AI analysis and prediction results.

In accordance to this experience, Kyoto and Kamakura developed their own overtourism counter-measures. In Kyoto, counter-measure development was led by DMO Kyoto, which established three goals: 1) to reduce crowds, 2) to harmonise residents’ happiness and tourist utilities, and 3) to analyse the desirable level of tourism prosperity in Kyoto. The most efficient method to address the three problems was to scatter visitors to various spots and regulate the visiting time. To do so, DMO Kyoto decided to employ an AI forecasting system called “Kyoto Tourism AI” [Kosaka 2020]. This system informs visitors with three forecasts, the first of which is five-level identification of crowding at famous destinations according to time ranges. The second recommends routes based on the first forecast, which could potentially control visitors’ movements in Kyoto. The third forecast is the “concierge” function, which is expected to control Kyoto visitors by changing visiting hours.

Unlike Kyoto, the counter-measures in Kamakura were led by Kamakura city. They compared six methods: 1) scattered visiting spots, 2) private car restriction, 3) modal shift to public transportation, 4) time diversification, 5) park-and-ride, and 6) induction to the seaside and longer stays.

One experience persuaded Kamakura to choose the enrolment of visiting restrictions. As shown in Figure 4, Kamakura experienced overtourism beginning around 2013. Since that time, Kamakura has learned about road pricing policy. This policy was expected not only to reduce the number of visitors immediately, but also to act as a precautionary counter-measure

against a potential influx of tourists for the Tokyo 2020 Olympic Games [Honda 2015]. However, this study was mainly led by the department of transport policy-making. The independence of these departments became one factor that delayed decision-making, which is typical in bureaucratic organisations.

In 2018, Kamakura experimented with restricted admission to the Enoshima line (train transportation). It issued a primary admission ticket for residents to take the Enoshima line from May 3<sup>rd</sup> to May 5<sup>th</sup>, 2018. The experiment was a success, and the duration was extended from April 27<sup>th</sup> to May 6<sup>th</sup>, 2019, including an increase in the number of covered stations [Ushiyama 2019]. Consequently, the number of visitors to Kamakura decreased, as shown in Figure 4. Subsequently, Kamakura decided to restrict the entry of visitors in 2018 and enacted a “nuisance prevention ordinance” in 2019.

The aforementioned case descriptions may stimulate speculation as to why the counter-measures taken by Kyoto and Kamakura differ, which will be discussed in the next section.

## Findings and Discussion

In this section, we will summarise the findings of the case study and present theoretical discussion points below.

In relation to the findings, we have identified two key points that can be extracted from the above case study. First of all, the counter-measures against overtourism taken by DMO Kyoto and the Kamakura Municipal Government differ significantly. Although both have experimented with the AI tourist forecasting system, DMO Kyoto tried the system while Kamakura Municipal Government has not. One reason for this difference is that the former is a sort of private company, while the latter is a (local) government. The latter is not likely to adopt an uncertain new technology due to the precedent principle.

Secondly, there are fundamental differences in destination management. Such differences may influence attitudes towards employing counter-measures against overtourism. That is, the missions or goals, are different. While DMO Kyoto focuses on becoming the sustainable leading international destination, Kamakura Municipal Government does not. Tourism development is just one of the municipal government’s missions. Tourism is not the government’s main priority, nor is it responsible for managing it. The other fundamental differences are their scales and geographic locations, as shown in Table 3. Although Kyoto City has a larger population and covers more land than Kamakura, the number of visitors per land area (average visitor density) and per population are the reverse of what one might

expect. Specifically, the number of visitors per population in Kamakura almost triples that of Kyoto. The theoretical implications of the above two findings are reviewed in the next section.

**Table 3.** Comparison of overtourism between Kyoto and Kamakura (2019)

	Visitors (M.)	Land (km <sup>2</sup> )	Population (1,000)	Average visitor density (persons/km <sup>2</sup> )	Visitor excess rate (Visitors/Population)
Kyoto	53.5	827	1450	177	37
Kamakura	19.0	40	172	1301	110

**Source and calculations:** Table 2 and Figure 4.

**Notice:** Average visitor density = visitors (year) / 365 / land.

In this section, it is discussed how the above findings relate to the theoretical issue of this study: the match between organisational structure and counter-measure choice. There are two main points for the first of which it is asked whether the findings can prove the matching hypothesis. One possible answer is affirmative, as the respective counter-measure choices made by Kyoto and Kamakura seem reasonable based on the structures of both organisations. DMO Kyoto, again, originated in the travel bureau, but is now mainly organised by membership private companies. Its decision-making freedom is greater than that of Kamakura Municipal Government. For example, the development of Kyoto Tourism AI was initiated by the marketing department in DMO Kyoto, and was led chiefly by younger staff. These younger employees were familiar with new information devices; they managed them easily and did not hesitate to implement them. The relatively flat and un-hierarchical organisational structure of DMO Kyoto may have aided it in more readily choosing an uncertain new technology (here, counter-measure).

In the same vein, Kamakura Municipal Government represents hierarchical structure. Under such conditions, the decision-making process is often prolonged, not only due to its numerous responsible positions, but also its various high-level positions, where decision-making is concentrated. Decision-making freedom is low at lower levels of the organisation. Furthermore, the municipal government is responsible for maintaining laws that legally and reasonably rationalise the distribution of tax according to the principles of fairness, equality and transparency. In such conditions, as proposed by traditional management theory, budget planning tends to veer towards the precedent principle (doing what was done before). The municipal government hesitates to adopt a new counter-measure. Consequently, enacting regulations against overtourism is one reasonable counter-measure and the only method available to the local government.

However, the above interpretation is inadequate in sufficiently addressing the match between structure and counter-measure. The possibility of these matchings, being mere coincidental occurrences, cannot be disregarded.

The second point is related to the possibility mentioned above: if the matching cannot explain the previous theories, any other possible explanation should be found. Thus, it is necessary to determine whether a theory (here, still a hypothesis) exists that can explain the different attitudes towards selecting counter-measures.

One possible explanation is path dependence theory [David 1985; Mahoney 2000], which can clarify how current situations are the result of past events. The accumulation of past experiences implicitly and inevitably influences decision-making options. Hence, one possible explanation as to why DMO Kyoto selected an AI tourist forecasting system as its overtourism counter-measure is based on past experience. In 2016, prior to its experience with AI, DMO Kyoto promoted time-shift-travelling. Visitors shifted from day- to night-time visiting, with DMO Kyoto promoting “Night Kyoto” and suggesting tourist spots that were open longer and which had illuminated gardens. These counter-measures were expected to limit the attraction of various destinations in Kyoto to inbound visitors.

However, path dependence theory has not yet been formulated rigorously; conceptual ambiguity remains [Martin and Sunley 2006]. Specifically, if path dependence works, new and innovative results cannot occur. Applying this theory to our context, new counter-measures may not be chosen. When considering the adoption of new counter-measures (in general, technologies), reliance on past experience, i.e. the precedent principle, may hinder the ability to identify incentives for innovative decisions. An imperative for the development of a theory that integrates emerging technologies has effectively arisen.

## Conclusions and Limitations

In this study, we present the DMOs’ choice of counter-measures against overtourism in Kyoto and Kamakura. Our research was focused on the match between organisational structure and choice of counter-measure. Following the traditional organisational theory, contingency theory, it was considered the hypothesis that the respective counter-measure choices of DMO Kyoto and Kamakura Municipal Government must match their organisational structure.

Therefore, we would like to propose a new management study examining the matching hypothesis between DMO structure and its performance (here, quickness of employment the new technology). In this paper, two types of DMO structure were introduced as a case study. DMO Kyoto is

mainly run by private companies, while Kamakura is run by the municipal government, and does not have an independent DMO, so far.

Although the case study can be interpreted as a plausible hypothesis, it cannot be used to test the hypothesis [Flyvbjerg 2006]; as such, we suggest the possibility that this theme become a productive item on the DMO research agenda. This is because there are differences in performance, even in financial results, among DMOs. We would expect this to be a difference in match between DMO structure and the choice of technologies. For example, it would make no sense to develop an attractive theme park at a destination already renowned for its historic and scenic spots. A DMO in such a destination can be designed as a mechanical organisation. On the other hand, at a destination without scenic spots, it is necessary to develop new amenities and create new tourist attractions.

In future work, issues related to DMO structure and its performance may be addressed. We do not claim it is the contingency theory, but it could develop into the DMO structure adaptation theory.

This study has some limitations, two of which have just been implied. Those stemmed from case study issues: generalisation and validation. However, we believe that an empirical study will test our hypothesis and possibly yield significant results. Therefore, empirical research should be conducted in the future.

Additionally, we recognise at least one limitation of this study. That is, the definition and measurements of DMO performance must be considered. In this paper, we focus on two DMOs, DMO Kyoto and Kamakura Municipal Government. However, the tourism department in Kamakura Municipal Government is not a formal DMO, but merely functions as if it were. Under these conditions, the tourism department of Kamakura Municipal Government cannot choose any other organisational structure besides hierarchy; flat- or network-organisation not being available. Nonetheless, the decision-making structure in the bureaucratic organisation depends on the types of leadership of mayors and governors. It is up to them to solve problems of bureaucracy.

Future research is paramount in order to delve into novel theoretical foundations within the field and enhance our comprehension of the intricate interplay among DMO structure, counter-measures against overtourism and performance outcomes. As diligent scholars, we are resolutely committed to undertaking this imperative inquiry, thereby making a substantive contribution to the advancement of knowledge in this domain.

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