Evaluating the Relevance of Actor-Network Theory in Understanding Floating Markets of Thailand: A Critical Review

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Abstract: This comprehensive review provides an analytical and critical examination of the journal article 'Floating markets in Thailand: same, same, but different' by Chalermpet Pangajarn, René van der Duim, and Karin Peters, published in the Journal of Tourism and Cultural Change in 2018. The focus of the journal article, and consequently, this review, is on the unique tourism development of five distinct floating markets in Bangkok and Pattaya, Thailand, which have come to symbolize Thai culture. This review employs the Actor-Network Theory (ANT) as a lens to unravel the complex and fluid dynamics of these markets, exploring how they have adapted and transformed over time to meet the demands of international tourism. Additionally, it highlights potential biases, power dynamics, and the significance of spatial and temporal considerations in the application of ANT to cultural and geographical studies. The review concludes with a discussion on challenges and opportunities in applying ANT to tourism studies and provides a potential alternative view emphasizing the need for relational analysis in understanding the diverse and dynamic nature of these markets. Overall, the review aims to contribute to the academic discourse on tourism development by providing a deeper understanding of Thailand's floating markets, assessing the methodological approach of ANT, and suggesting potential directions for future research.

Keywords: Actor-Network Theory, Thailand, Floating markets, Tourism development, Geographical imaginations.

1. Introduction

Recently, the anthropological study of tourism and its ripple effects on indigenous cultures and economies has taken center stage in academic discourse. This comprehensive minireview ventures into a thorough examination of a remarkable study on the transformation of Thailand's floating markets, from once being vibrant centers of local trade to now standing as major attractions on the global tourism map. What sets this study apart is the application of Actor-Network Theory (ANT) to investigate this shift, providing a fresh perspective on how the currents of tourism shape and mold cultural heritage sites in an increasingly interconnected world. The objective of this review is twofold: to critically dissect the study's use of ANT and to gauge the implications of its findings in the context of contemporary societal and economic trends (Franklin, 2004). The study under review has taken painstaking efforts to dig deep into the narrative of these markets' evolution, making it of particular interest for scholars interested in cultural tourism, anthropology, and socioeconomic changes triggered by globalization. The ensuing analysis of the article and discussion aims to stimulate discourse on the impact of tourism on cultural preservation and economic growth, the very crux of sustainable development in today's world (Michael, 2016).

This review critically analyses the research article, "Floating markets in Thailand: same, same, but different" by Chalermpet Pangajarn, René van der Duim, and Karin Peters, focusing on international tourism development in the floating markets of Bangkok and Pattaya, Thailand. The Actor-Network Theory (ANT) serves as the primary methodological

tool, by employing its three key notions: ordering, materiality, and multiplicity, to evaluate the operations of these markets. While the article highlights the unique features of each floating market, the review identifies certain weaknesses in ANT's application, including its the theory's non-recognition of power dynamics and issues with bypassing dualisms. An alternate relational perspective is suggested for further research.

2. Gist of the Investigative Journal Article

The investigative journal article stands out due to its focus on Thailand's five prime floating markets and their metamorphosis under the sweeping influence of international tourism. The study provides a rich tapestry of insights on how these markets have undergone a considerable paradigm shift, moving away from their foundational role as hubs of local commerce, to morph into alluring illustrations of Thailand's unique cultural heritage that draw global tourists in droves. The article's depth of analysis is thanks to a blend of meticulous field observations, comprehensive surveys, and insightful interviews conducted by the authors. This triangulated approach lends credence to the picture painted about these dynamic markets, their coping strategies, and adaptations in the face of a growing tourist influx. The narrative woven by the authors effectively places these markets within the sprawling web of global tourism, detailing the intricate relationships they share with various stakeholders - from the local vendors who keep the commerce alive, the tourists who bring in international revenue, the tour operators who guide the tourism flow, to the

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regulatory bodies that govern the operations. In this context, the researcher's intention was fulfilled with the production of the results, as presented in Table 1. The table characterizes the

five floating markets in specific columns denoting their unique features and characteristics.

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Floating markets	Focal actors	Main (new) objects	Vendors	Main customers	Time	Space
Original version	Buyers and vendors	Local products	Local and non-local people	Local and non- local people	Certain dates in lunar calendars	Open public space
Damnernsduak (DFM)	Port owners and tour agencies	Souvenirs, postcards ports	Local and non-local people	International tourist	Morning, everyday	Open space owned by private
Thaka (TFM)	Local government	Homestays walking and biking paths	Local and non-local people	Local people and Thai tourists	Morning, certain days	Open space organised through negotiation
Amphawa (AFM)	Local government	Fire fly boats, home stays tangible heritage	Local and non-local people	Thai tourist	Afternoon and evenings, Weekends	Open space owned by locals
Pattaya (PFM)	Private investor	Souvenirs for Asian tourist Thai houses	Local and non-local people	Asian tourists	Everyday	Closed space owned by privates
Bang Namphueng (BFM)	Local government	Outdoor recreation facilities	Local people	Thai tourists	Weekends	Closed space owned by local municipality

The article's findings unravel a panorama of change, detailing the fluctuating identities of the markets and the actors within. Once bustling hubs known for their authentic local produce, these markets have now evolved to cater more to the tourists' preferences, offering souvenirs, local crafts, and a taste of Thailand's traditional lifestyle. This shift in inventory directly appeals to the aesthetic predilections and cultural curiosity of international tourists. This vivid portrayal of the transformative journey that the floating markets have embarked on serves as an illustration of their resilience and the pivotal role international tourism plays in shaping local economies and cultural heritage. Our study has essentially centered around the following key components:

The floating markets of Thailand: These are the central focus of the study and review.

Actor-Network Theory (ANT): This is the theoretical framework used to analyze the floating markets.

Actors within the markets: Both human (like vendors, customers, tourists, authorities) and non-human (like boats, stalls, local products, waterways).

Transformations induced by international tourism: These are the changes observed in the markets, which have been analyzed through the ANT lens.

Critical evaluation of the study: This includes the strengths and weaknesses of the study, and reflections on its contribution to tourism studies.

3. Understanding of Floating Markets Through ANT

3.1. Deconstructing the Actor-Network Theory (ANT)

The Actor-Network Theory (ANT) is a theoretical and

methodological approach to social theory where everything in the social and natural worlds exists in constantly shifting networks of relationships. It posits that nothing exists outside these relationships. All the factors involved—things, people, concepts—are seen as equally important and are called 'actors' or 'actants'. ANT suggests that all entities in a system have a role, regardless of their animate or inanimate nature. When applied to floating markets, ANT provides a robust framework for analyzing the complex socio-economic ecosystem. The markets' essence is captured by understanding the dynamic relationships between various actors. These include human actors such as local vendors, tourists, and government regulators, and non-human actors like the goods being sold, the boats used for vending, and the waterways that define the market's geography (Law & Mol, 2001).

3.2. The Evolving Market Dynamics Through the Lens of ANT

The ANT analysis helps in studying the transformation of floating markets over time. Traditionally, these markets were bustling hubs for local communities, facilitating daily commerce and serving as a vital means of communication. However, the rise of international tourism has significantly influenced the character and functionality of these markets. As international tourists have increasingly become an integral part of the network, the markets have adapted to meet their needs and expectations. Items sold have changed from regular goods to more tourist-oriented products, including souvenirs and traditional Thai artifacts (Murdoch, 2006). Thus, the application of ANT underscores how the inclusion of new actors alters the network, thereby shaping the markets' structure and culture.

Table 2. The relationships within the Actor-Network T	Theory (ANT) og it ig or	plied to the study	r of floating markets
Table 2. The relationships within the Actor-Network 1	meory (Ami) as it is at	ipnied to the stud	y of floating markets.

Category	Sub-category	Actors/Elements	Relationship / Impact
Human Actors	Tourists	Economic power	Power dynamics within ANT leading to potential inequality and negative impacts
	Local Vendors	Impact of Spatio- Temporal Dimensions	Space and time acting as influencers on the vendors' operations.
Non- Human	Boats	Interaction with tourists & vendors	Influenced by and influence human actors, contributing to the dynamic nature of markets.
	Marketplaces	Space for interactions	Provide the physical and temporal dimensions for the networks of actors to interact.
Potential Biases in ANT	Ignored Power Imbalances	Tourists, vendors, boats, marketplaces	May lead to skewed understanding of the markets' dynamics, due to unequal power relations

Table 2 delineates the different actors within the Actor-Network Theory and their relationships. It also highlights potential biases and how they could impact the understanding and interpretation of the dynamics within floating markets.

4. Critical Analysis of the Application of ANT

This summary table distills the key aspects of the Actor-Network Theory (ANT) and their relevance in the context of the study (Table 3):

- (a) Equal Treatment of Actors: ANT's egalitarian approach to actors could potentially lead to biases. In the context of the floating markets, all actors, whether they're regulatory authorities, international tourists, local vendors, or single products, are treated equally in the network analysis. However, in reality, some actors, like regulatory authorities or international tourists, might exert more influence on the network than others.
- (b) Power Dynamics: ANT does not inherently account for power asymmetries, but understanding these dynamics is crucial to reveal imbalances within the network. For example, international tourists, due to their economic contributions, wield significant power, which can shape the market

trajectory and impact other actors like local vendors.

- (c) Spatio-Temporal Dimension: ANT recognizes space and time as influential actors that shape the narrative and evolution of markets (Murdoch, 1997). The shift from local customers to international tourists over time in the floating markets is a clear example of this dynamic.
- (d) Non-human Actors: ANT enhances our understanding of complex market interactions by incorporating non-human actors. For instance, the interactions between boats (non-human actors) and waterways (spatial dimensions) provide valuable insights into the dynamics of the floating markets.
- (e) Study Findings: The study's findings provide a nuanced perspective on market transformations. Particularly, international tourism is identified as a significant catalyst for these changes, showcasing how the unique application of ANT can reveal deeper insights.
- (f) Future Research Directions: The study underscores the necessity for future research to fully understand the socio-cultural and economic impacts of market transformations on local communities. This points to potential avenues of exploration, informing future studies about the research gaps that need to be filled. Top of Form

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Table 3. Summary table clarifying the ANT framework.

Aspect of ANT	Importance/Impact	Examples from the Study
Equal		Regulatory authorities or international tourists may impact
Treatment of	Can lead to potential biases	the network more significantly than a local vendor or a
Actors		single product
Power	Crucial for understanding	International tourists wield significant power due to their
Dynamics	imbalances within the network	economic contributions
Spatio- Temporal Dimension	Key role in shaping the markets' narrative and evolution	The shift from local customers to international tourists highlights the importance of time and space
Non-human	Enhance understanding of the	Interactions between boats and waterways provide insights
Actors	complex interactions	into market dynamics
Study Findings	Provide a nuanced perspective on	International tourism identified as a significant catalyst for
	the market transformation	market changes
Future Research	Necessary to understand impacts on	Need for further research into the socio-cultural and
Directions	local communities	economic impacts of market transformations

4.1. Application of ANT

This section elucidates the innovative application of Actor-Network Theory (ANT) within the context of floating markets. Researchers leverage ANT as a conceptual framework, viewing markets not as static entities but as intricate, dynamic networks. These networks consist of a diverse spectrum of actors, including human agents (e.g., market vendors, tourists) and non-human elements (e.g., boats, waterways). Each actor participates in a complex web of interactions, shaping and being shaped by the market's evolving structure. This pioneering approach transcends traditional economic and sociological interpretations of market dynamics, thereby offering a more nuanced understanding of the micro and macro-level processes within the market network.

4.2. Evaluation of ANT Application

The deployment of ANT in the investigation of the floating market phenomena provides an encompassing perspective on market operations. Incorporating both human and non-human actors reveals the complexity and multidimensionality of these markets, exposing elements often missed in traditional market studies (Law, 2002). For instance, recognizing physical entities such as boats as significant contributors to market dynamics enriches the analysis, enabling a more holistic understanding of the market's functioning. This section further delineates the strengths of the ANT framework, underscoring its capability to deliver a multifaceted analysis of market dynamics. Utilizing ANT, researchers decode the complex interactions among various actors, thus illuminating the underpinning mechanisms that govern the market's evolution and operation.

4.3. Critical Analysis of the Application of ANT

4.3.1. Potential Biases in the Application of ANT

As effective as ANT can be in studying the floating markets, potential biases may arise due to the theory's inherent nature. ANT proposes an equal footing for all actors within a network, which could be misleading when applied to real-world scenarios, where the relative influence of different actors can vary. A critical evaluation reveals that regulatory authorities or international tourists may significantly impact the network compared to a local vendor or a single product. Ignoring these power imbalances might present a skewed picture of the markets, inadvertently overlooking the complex dynamics driving their evolution.

4.3.2. Exploring Power Dynamics in ANT

The concept of power dynamics within ANT is another important area to explore. Despite the equality proposition in ANT, power asymmetries often exist among actors, which could potentially influence the network's functioning. For example, international tourists wield significant power in shaping the markets' trajectory due to their economic contributions. This unbalanced power distribution can result in the needs of influential actors taking precedence over other entities. This may impact local vendors or indigenous communities negatively, thus raising crucial questions about fairness and equity (Jo'hannesson, et al. 2015).

4.3.3. The Spatio-Temporal Dimension in ANT

Space and time are integral parts of the ANT approach when applied to the floating markets. The markets' unique geographical positioning, rooted in the vibrant waterways of Thailand, and the temporal dimension reflecting their evolution from local community hubs to popular tourist destinations, offer unique insights. Interactions between actors, such as the interplay between boats and waterways, or the shift from local customers to international tourists, all highlight the importance of space and time within ANT. Therefore, it is vital that any ANT analysis not treat space and time merely as a stage where the actors play their roles, but rather as influential actors in their own right that shape the markets' narrative and evolution.

4.4. Summary of Findings

The reviewed article offers a comprehensive study of the floating markets in Thailand, unraveling their dynamics through the lens of Actor-Network Theory (ANT). The study's groundbreaking use of ANT brings forth refreshing insights into the complex interactions and evolving dynamics within these markets, marking a substantial contribution to tourism studies. The study's primary strength lies in its innovative application of ANT. By utilizing ANT as a framework, the authors provide an original perspective for deciphering the complex layers of interactions in tourism spaces. The use of ANT allows for a nuanced, multidimensional analysis of the markets and the diverse array of actors involved. Rather than viewing the floating markets as monolithic, unchanging entities, the authors present them as vibrant, dynamic networks of diverse actors, which are continually shaping and being shaped by their interactions. This approach paints an extensive, multi-faceted image of the transformations within traditional markets and identifies international tourism as a significant catalyst for

Additionally, the study skillfully weaves in the sociocultural, economic, and environmental dimensions of tourism impacts into the ANT analysis. It examines not just the relationships among human actors, but also their interactions with non-human actors like the physical marketplaces, boats, and natural resources. This inclusion of material elements provides a more rounded understanding transformations within the floating markets, strengthening the depth and breadth of the study. Despite these strengths, the study exhibits some weaknesses (Van der Duim, 2016). The egalitarian approach of ANT towards all actors, while innovative and insightful, risks downplaying power imbalances within the network. There might be key actors, like government authorities or large tourism businesses, who wield more power in shaping network dynamics. The authors' analysis, however, does not sufficiently address this concern, which may lead to potential biases in their interpretation. Furthermore, while the authors highlight the importance of spatio-temporal aspects in actor interactions, their exploration of these dimensions appears somewhat superficial. The role of space – such as the physical layout of the markets or the geographical context - and time - such as the temporal patterns of tourist visitation or seasonal variations - in shaping network dynamics and outcomes merits a more thorough and nuanced analysis.

4.5. Assessment of the Conclusions and Suggestions

The article culminates by emphasizing the transformative influence of international tourism on the floating markets. The authors interpret this transformation as a continual process, altering the traditional market spaces considerably over time. They propose that the tourism-induced changes, while bringing economic benefits, might also lead to cultural commodification and environmental degradation.

While this conclusion provides a broad overview of the research findings, it could benefit from a more detailed breakdown of the specific changes within the floating markets. The authors might have elaborated further on how different actors have responded to these changes, and how these responses have further modified the market dynamics. This would have added depth and clarity to their conclusion. The authors' recommendation for further research into the sociocultural and economic impacts of these transformations on local communities is apt, given the potentially disruptive

effects of tourism on local lifestyles, cultures, and economies. However, they could have elaborated on specific research directions or methodologies that future studies could adopt. For instance, they could have proposed conducting longitudinal studies to track changes over time, or using participatory research methods to include local community perspectives in the research process. Such elaboration would have added value to their recommendations.

5. Challenges and Opportunities of Applying ANT to Tourism Studies

Table 4. Current challenges and opportunities of applying ANT to tourism studies.

Category	Sub-category	Specific Aspects / Elements	Description / Impact
Challenges in Using ANT	Defining and Tracing Networks	Fluid nature of tourism spaces	Complexity in mapping the ever-changing relations among various actors due to the transient nature of tourism spaces.
	Egalitarian Approach	Power disparities among actors	Risk of overlooking power dynamics due to ANT's equal treatment of all actors, leading to potential biases and oversimplified analysis.
	Overlooking Broader Contexts	Policies, regulations, cultural norms etc.	ANT's actor-centric approach may neglect larger structural and societal contexts that significantly shape tourism spaces.
Opportunities Offered by ANT	Comprehensive Analysis	Diverse array of actors	ANT's inclusive lens allows for an in-depth, nuanced understanding of tourism spaces, capturing interactions among various actors from individuals to organizations, and from tangible to intangible entities.
	Informing Management and Policy	Designing infrastructure, crafting policies	Insights from ANT can guide the development of equitable and effective tourism strategies, balancing tourist satisfaction with local community needs and environmental sustainability.
	Studying and Promoting Sustainability	Collaboration for sustainable practices	ANT can reveal pathways for fostering sustainable tourism by highlighting interdependencies and potential collaborations among various actors, from local communities and businesses to government agencies and tourists.

Table 4 clearly outlines the major challenges and opportunities in applying Actor-Network Theory to tourism studies. It provides a concise yet comprehensive overview of the potential pitfalls and benefits that researchers may encounter when utilizing this theoretical approach.

5.1. Challenges in Using ANT for Tourism Studies

The application of ANT in tourism studies presents unique yet intricate challenges. The foremost challenge is the complexity associated with defining and tracing the network of relations among various actors. This task is arduous given the fluid and often transient nature of tourism spaces (Jo'hannesson, et al., 2016). The dynamism inherent in these spaces is marked by the constant entry and exit of actors, and the ever-changing relationships among them. Capturing this dynamism effectively within the ANT framework demands intensive and detailed fieldwork, making the research process both time-consuming and complex. Additionally, ANT's distinct egalitarian approach to actors in the network, while

offering the advantage of a more nuanced understanding of actor interactions, also presents another challenge. By treating all actors equally, ANT might inadvertently overlook power disparities that may exist among actors, which can significantly influence network outcomes. This can introduce biases into the analysis, presenting an oversimplified picture of the actor-network dynamics. Moreover, ANT's focus on tracing network relations to understand the system may neglect broader structural and societal contexts that impact the tourism space. For instance, policies, legal regulations, economic trends, and cultural norms can significantly shape tourism practices and outcomes, but these larger contextual factors might not be adequately captured in ANT's actor-centric approach.

5.2. Opportunities Offered by ANT

Despite the challenges it presents, ANT provides a multitude of opportunities for advancing tourism studies. It offers a unique and comprehensive lens to understand the intricate workings of tourism spaces. This lens encompasses

a vast range of actors, from individuals to organizations, and from tangible objects to intangible elements like ideas and norms. By allowing for the consideration of such a diverse array of actors, ANT brings a richness and depth to the analysis that other theories often miss. Furthermore, ANT's emphasis on the relations and interactions among actors can unveil the nuanced dynamics underlying the functioning of tourism spaces. This approach can reveal how changes induced by tourism – such as increased visitor numbers, introduction of new technologies, or shifts in market trends – can ripple through the network, altering the relationships among actors and transforming the space (Jo'hannesson, 2005).

More importantly, the insights generated through ANT can significantly inform tourism management and policy-making. By illuminating the various actors involved and their interdependencies, ANT can guide the development of more inclusive, equitable, and effective strategies. This can range from designing tourism infrastructure that respects local community needs to crafting policies that balance tourist satisfaction with environmental sustainability. Finally, ANT can play a pivotal role in studying and promoting sustainable tourism. By highlighting how different actors interact and shape tourism practices and outcomes, ANT can help uncover potential pathways for fostering sustainability. For instance, it can shed light on how networks of local communities, tourism businesses, government agencies, and tourists can collaborate to create tourism practices that support local economies, protect the environment, and respect cultural heritage (Law, & Singleton, 2005). This perspective is invaluable in an era where tourism sustainability is increasingly recognized as a critical concern.

6. Concluding Remarks and Future Research Directions

6.1. Reflection on the Significance of the Journal Article and Further Research Directions

The article holds great significance for tourism development studies, particularly in exploring spaces where tradition meets modernity. The insights it offers into floating markets - complex spaces teetering between preserving local culture and adapting to global tourism pressures - are invaluable. This study creates a path for further research to delve into the socio-cultural and economic ramifications of these transformations on local communities. The potential biases observed in the application of ANT highlight the need for future research in refining this theoretical approach in tourism studies. More specifically, future studies should explore effective ways to integrate power dynamics and spatio-temporal aspects into the ANT framework.

6.2. Final Thoughts and Assessment

This article is a notable contribution to the academic discourse on tourism development. By employing ANT, it uncovers the intricate web of relationships shaping the socioeconomic realities of floating markets. Its insights into the profound influence of international tourism on these spaces underline the importance of sustainable tourism practices. These practices aim to balance the economic benefits of tourism with preserving local cultural identity and community wellbeing. The central purpose of this critical journal review is to focus on the derived results from the utilization and

relevance of the adopted Actor-Network Theory methodology.

6.3. Conclusion

This critical review serves to focus the discussion on the relevance of the actor-network theory in studying the identified floating market. The exhaustive primary data collected provides valuable insights into the characteristics of major actors at the destination floating markets of Damnernsaduak, Thaka, Amphawa, Bang Namphueng, and Pattaya, Thailand. The review presents an improved debate on the application of ANT, incorporating its three notions: "ordering, materiality, and multiplicity" (Van der Duim, 2007; Mol & Law, 1994). However, the central thesis and subsequent debate highlight the researcher's profile of power, domination, and oppression, which might not have been adequately addressed (Murdoch, 1997). Additionally, the third section discusses further emphasis on geographical concerns in the context of human and economic aspects, and the concluding paragraph reflects on the features of space and

7. Competing Interests

All authors declare no Competing Financial or Non-Financial Interests.

8. Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

9. Funding Declaration

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