

Integrated Programme Governance for Tourism Infrastructure and Regional Development in Saudi Arabia under Vision 2030.

Abstract

The expansion of tourism in Saudi Arabia, under the Vision 2030 initiative, covers a wide variety of areas such as destination development, transport, utilities, heritage conservation, digital systems, the public realm, hospitality capacity and regional economic policy as part of a wider programme of transformation. Given the scale of this project, a governance problem emerges that cannot be resolved by simply controlling each individual project. This review analyses how integrated programme governance can link the delivery of tourism infrastructure with regional development outcomes. In order to achieve this a structured critical integrative review of 30 peer-reviewed studies verified by the DOI was conducted between 2020 and 2025, the studies covering the fields of tourism development, urban and regional planning, megaproject governance, stakeholder management, construction delivery, sustainability and digital coordination. The synthesis identifies six interdependent governance requirements: strategic portfolio alignment, integration of regional infrastructure and utilities, explicit decision rights, interface and change control, assurance of sustainability and heritage, and benefits-led performance management. It is possible for optimisation at the project level to take place even if the overall programme is performing poorly provided that the shared dependencies and cumulative pressures are only dealt with at a late stage. To deal with this the paper describes an Integrated Programme Governance Framework which connects national objectives to regional portfolios through common assumptions, stage-gated decisions, cross-project interface ownership, shared data, independent assurance and benefits tracking. The framework views tourism infrastructure as a connected regional system rather than as a collection of separate assets. The value of the framework rests in the fact that it offers a governance structure suitable for rapidly expanding destination programmes in Saudi Arabia and in similar situations involving a transformation where public value depends on the coordinated delivery of multiple projects, agencies and across various territorial scales.

1. Introduction

Tourism is now a key element of Saudi Arabia's strategy for economic diversification as well as regional development, with investment spreading well beyond hotels and tourist attractions

to include airports, roads, utilities, heritage areas, public spaces, digital services and new destination systems. According to recent studies focused on Saudi Arabia, tourism growth is being achieved through large-scale destination development, environmental management, urban regeneration and institutional reform, not just through further expanding accommodation capacity (Iswan et al., 2021; Filippi & Mazzetto, 2024). The Red Sea and AlUla show how destination development can integrate infrastructure, conservation, heritage and the creation of a distinct local identity within a coordinated development approach, while evidence from Jeddah, Makkah and Riyadh indicates that tourism-related growth is closely linked to wider urban mobility, sustainability and quality-of-life systems (Chalastani et al., 2020; Helmi et al., 2021; Klingmann, 2023).

This is a governance issue. The conventional project method supposes that an asset can be managed in relation to its initial scope, cost, time, and quality standards. Yet tourism-led regional transformation contradicts this assumption since the benefits of one project depend on the readiness and performance of a number of other projects. For instance, the opening of a resort will depend on airport capacity, the reliability of utilities, the availability of housing for the workforce, road access, digital connectivity, environmental permits, and destination marketing. On the other hand, a heritage district must first have improvements in mobility, investment in public spaces, a conservation governance system, support for local firms, and the establishment of community legitimacy before an increase in the number of visitors can result in lasting regional value. Evidence from urban development in Saudi Arabia also indicates that infrastructure systems and sustainability objectives interact across administrative and sector boundaries, which means that isolated optimisation is not sufficient (Zaki & Hegazy, 2023; Alhubashi et al., 2024; Alamoudi et al., 2024).

Programme governance can offer a more effective means of coordination since it concentrates on a group of related projects and organisational changes which together need to achieve strategic benefits. However, programme governance isn't simply a project management office on a larger scale. As shown by research into megaprojects, governance has to assign decision-making powers, strike a balance between management and flexibility, coordinate a varied spectrum of stakeholders, keep account of uncertainty and ensure that the strategic objectives are maintained over the long term (Lu et al., 2020; Brunet, 2021). In the case of public infrastructure, the quality of governance is also linked to stakeholder management and project performance, and poor owner capabilities, inadequate reporting or

poorly designed contracts can still impair delivery even if the individual technical teams are carrying out their tasks proficiently (Khan et al., 2021; Ma & Fu, 2022; Farid et al., 2025).

The main issue is integration—how can the national goals in the field of tourism be turned into integrated regional programmes in which the projects, systems, environmental constraints and benefits all stay in line? Although there is an increasing amount of evidence from existing studies on Saudi tourism concerning destination sustainability, cultural entrepreneurship, heritage, mobility and smart-city development (Alharthi, 2025; Abid et al., 2025; Bahreldin et al., 2025), construction research has identified repeated delivery problems relating to lessons learned, project controls and change orders (AlMunifi& Almutairi, 2021; Alotaibi et al., 2025; Alsulami, 2025). Yet these areas are generally dealt with separately. A paper focusing on tourism destinations might talk about the outcomes of those destinations without stating what governance mechanisms are required to coordinate the delivery of infrastructure; similarly, a paper on construction might strengthen control systems without looking into whether the finished assets together contribute to regional tourism benefits.

This review bridges those literatures. It treats tourism infrastructure as a programme-level socio-technical system and regional development as the benefits domain against which delivery should be judged. The paper's contribution is not another inventory of Vision 2030 projects. Instead, it synthesizes evidence into a governance model that connects strategic consistency, cross-project interfaces, stakeholder authority, delivery assurance, sustainability and benefits realization.

2. Aim, Objectives and Review Questions

This review intends to create a governance model for integrated programmes that is based on evidence and which is able to connect the delivery of tourism infrastructure with balanced regional development in Saudi Arabia as part of Vision 2030.

The analysis is based on five objectives. The first is to identify the governance mechanisms by which national strategic priorities are turned into regional programme portfolios and decisions at the project level. The second looks at the way in which transport, utilities, digitalinfrastructure, the public realm, hospitality assets and environmental capacities should be coordinated as integrated systems rather than treated as separate tasks. The third involves an examination of stakeholder decision-making powers, the capabilities of the owner,

assurance procedures, interface management and change oversight in complex multi-project settings. The fourth evaluates how sustainability, heritage, community value, local enterprise and spatial equity can be incorporated into governance rather than being evaluated after the fact. The fifth consists in proposing a practical programme-governance structure together with lifecycle gates, data requirements and performance indicators.

The three review questions are as follows: the first one seeks to identify which governance capabilities are most consistently linked with coherent delivery in the areas of tourism, urban development and megaprojects. The second question investigates where there is a lack of coordination between strategy, regional planning and project implementation and examines how these gaps impact value creation. The third question is concerned with how a Saudi tourism programme can arrange its decisions, information and accountability so that the completion of assets is clearly linked to regional outcomes.

3. Review Methodology

A critical integrative review was chosen since the issue spans a number of disciplines, each having its own unit of analysis. In the case of tourism studies, the focus is on destinations, local populations, environmental results or the economies of visitors; urban research looks at transport, land use and sustainability; construction research is concerned with project delivery; and work on megaprojects examines governance, ownership, contracts and stakeholder complexity. A review that was too narrow therefore might fail to include mechanisms that are relevant across these different areas of study. By using an integrative approach, the evidence could be compared in terms of governance functions rather than according to disciplinary categories.

In order to include evidence that is relevant to the present phase of accelerated tourism and infrastructure expansion in Saudi Arabia, the time frame for the search was set between 2020 and 2025. The searches were carried out over a number of major multidisciplinary and management indexes by combining the terms 'Saudi Arabia', 'tourism', 'Vision 2030', 'regional development', 'infrastructure', 'megaproject', 'programme governance', 'project governance', 'stakeholder', 'project controls', 'change', 'sustainability', 'urban development', 'digital' and 'delivery'. Where a study had introduced a relevant governance construct, both backward and forward citation checking was carried out. The sources that were deemed eligible were peer-reviewed journal articles in English which were published within the specified date range,

127 had a resolvable DOI, and provided either direct evidence from Saudi Arabia or evidence that
128 could be transferred regarding the governance mechanisms applicable to multi-project
129 infrastructure programmes.

130 The analytical corpus that was finally assembled consisted of 30 articles which had been
131 verified by means of their DOIs. When making contextual claims about tourism, urban
132 development, heritage and the delivery of construction projects, a preference was given to
133 studies that are specific to Saudi Arabia. In cases where empirical evidence from Saudi
134 Arabia is scarce, studies of large international projects were employed regarding governance
135 mechanisms. Studies that were entirely technical and had no consequences for governance or
136 regional development, non-peer-reviewed comments, duplicate entries and sources falling
137 outside the specified date range were all excluded. The review does not assert that it provides
138 a complete bibliometric coverage; rather, its aim is to carry out a critical synthesis of a
139 defined, recent and verifiable body of evidence.

140 The analysis was carried out in four stages. In the first stage each study's context, unit of
141 analysis, main governance problem and reported mechanism were identified. The second
142 stage involved coding the mechanisms that occurred repeatedly in the areas of strategy,
143 infrastructure interdependence, decision rights, stakeholder coordination, project controls,
144 sustainability and digital information as well as benefits. The third stage compared the
145 mechanisms in the Saudi studies with those in the non-Saudi studies in order to tell the
146 difference between features that were specific to a given context and principles of governance
147 that could be transferred. In the fourth stage, the themes that had been derived were turned
148 into a working framework by posing three questions for each theme: who should make the
149 decision, what information should support that decision, and how should performance be
150 demonstrated over the lifecycle.

151 Quality was ensured by means of checking source relevance, verifying the DOIs, carrying out
152 comparisons between different studies, and clearly distinguishing between evidence that is
153 contextual and that which involves inference based on a framework. It was never the case that
154 one study alone was considered to be adequate as evidence for the model in question. A
155 proposition was kept only if it was supported by a number of different sources or if a case
156 from Saudi Arabia offered a plausible contextual reason for adapting a general governance
157 principle. This method is in line with the aim of the paper: to create a review framework that

158 is both theoretically coherent and practically useful without making any causal claims that the
 159 existing literature does not support.

160

161 **Table 1. Evidence clusters in the 2020-2025 review corpus and their programme-**
 162 **governance implications.**

Evidence cluster	Representative studies	Recurrent issue	Programme-governance implication
Saudi tourism and destination governance	Chalastani et al. (2020); Iswan et al. (2021); Filippi & Mazzetto (2024); Alharthi (2025); Abid et al. (2025); Elshaer et al. (2024)	Destination value depends on conservation, heritage, community and enterprise outcomes.	Govern benefits, constraints and place-based trade-offs at portfolio level.
Urban and regional systems	Zaki & Hegazy (2023); Alhubashi et al. (2024); Alamoudi et al. (2024); Hegazy et al. (2024); Helmi et al. (2021); Alarabi & Alasmari (2023); Alismail et al. (2025); Klingmann (2023); Bahreldin et al. (2025)	Mobility, utilities, land use, digital capability and sustainability interact across jurisdictions.	Use common demand assumptions, capacity envelopes and regional evidence.
Saudi project delivery	AlMunifi & Almutairi (2021); Alotaibi et al. (2025); Alsulami (2025)	Weak pre-construction coordination, controls and change processes propagate delay and rework.	Create programme-level controls for shared milestones, changes and lessons.
Governance and stakeholders	Khan et al. (2021); Brunet (2021); Ma & Fu (2022); Xue et al. (2020a, 2020b); Lu et	Authority, stakeholder concerns and governance	Define decision rights, interface ownership, escalation and independent

	al. (2020); Ma & Liu (2025); Farid et al. (2025)	tensions evolve through the lifecycle.	assurance.
Delivery under uncertainty	Narum & Debnath (2025); Ibrahim et al. (2025)	Uncertainty, fragmentation and hand-off failure weaken reliable delivery.	Protect cross-project readiness through stage gates and flow-oriented coordination.
Institutionalisation and assessment	Reichenbach & Fleischer (2023); Sharifi (2021)	Technical solutions fail when routines, indicators and institutions do not mature together.	Treat data, learning and outcome measurement as enduring programme capabilities.

163

164 4. Findings

165 4.1 Strategic congruence needs portfolio governance, not just project compliance.

166 The available literature suggests that strategic congruence is undermined if national
167 ambitions are turned directly into project mandates without first going through a regional
168 portfolio stage. Studies of Saudi destinations indicate that their development goals include
169 economic diversification, the activation of heritage, environmental protection and enhancing
170 place competitiveness, all of which are often found in the same area (Filippi & Mazzetto,
171 2024; Elshaer et al., 2024; Abid et al., 2025). Research regarding urban strategy also stresses
172 the importance of linking national objectives to the specific planning abilities of cities and to
173 the local conditions for development rather than using the same model everywhere
174 (Alarabi & Alasmari, 2023; Alismail et al., 2025). As a result, the requirement is that
175 programmes should have an explicit benefits map showing how national outcomes relate to
176 regional capabilities, project outputs and measurable intermediate results.

177 Programme boards must therefore treat the portfolio as a system of dependencies and check
178 that the projects together remain sufficient, necessary and in the correct sequence for the
179 desired destination outcome. It is possible for a project to be considered 'on plan' even if the
180 programme drifts strategically should external dependencies change, complementary assets
181 be delayed or the assumptions about demand differ. According to Brunet (2021) megaproject
182 governance consists of seeking an equilibrium among competing control requirements rather

than relying on a fixed hierarchy; Ma and Liu (2025) also stress the importance of top-level governance in transport megaprojects. When it comes to tourism infrastructure, strategic management calls for regular portfolio revalidation, not just for the purpose of producing annual reports relative to the original business cases.

4.2 Regional infrastructure and utilities are common program resources.

Since the infrastructure needed for tourism has broad effects on a regional level, this is because the various facilities such as roads, water, power, waste disposal, digital networks, and public spaces are used by multiple developments. Research into city issues in Saudi Arabia has shown the interdependence between mobility, environmental quality, and the decisions relating to urban development in Jeddah and Makkah (Helmi et al., 2021; Zaki & Hegazy, 2023; Hegazy et al., 2024). Further research on intelligent transport systems indicates that digital and physical mobility systems should be planned together when it is anticipated that cities will have to meet rapidly changing demand (Alamoudi et al., 2024). It follows that an approach which deals with projects one at a time can result in unnoticed conflicts over capacity: although each individual development may seem feasible on its own, the total demand when all of them are taken together will go beyond the regional infrastructure or environmental limits.

The Red Sea example is particularly helpful since marine spatial planning was applied in order to bring about a settlement between growth and conservation before the area had been completely developed (Chalastani et al., 2020). This illustrates a more general principle of governance because shared constraints need to be established at the programme level before each individual project improves its own design. The programme should keep common demand scenarios, capacity limits and interface agreements for transport, utilities, logistics, digital services and environmental constraints. These controls do not mean that all technical decisions are centralised; rather, they set the boundaries within which project autonomy can safely operate.

4.3 The speed of execution is determined by the decision-making authorities and the interfaces with stakeholders.

Complex programmes are usually not hindered more by a lack of expertise than by the fact that it is unclear who has the authority to settle cross-boundary issues. Research into the

stakeholders of megainfrastructure indicates that concerns and conflicts develop over time, which means that dynamic rather than static engagement models are required (Xue et al., 2020a, 2020b). Lu et al. (2020) likewise stress the importance of organisational behaviour in the governance of megaprojects, and Khan et al. (2021) connect stakeholder management and governance to performance regarding public infrastructure. It therefore follows that stakeholder registers on their own are not sufficient; programmes have to have a decision architecture which defines ownership, the procedures for escalation, the rights to consultation and the evidence requirements for repeated interface decisions.

In the tourism areas of Saudi Arabia, the relevant parties can comprise national ministries, development companies, municipalities, utility suppliers, transport authorities, heritage organisations, environmental regulators, operators, investors, contractors and local businesses. The problem in terms of governance is to prevent both fragmentation and excessive centralisation; authority at the programme level is appropriate when decisions affect shared capacity, regional outcomes, common standards or cumulative risk, while project teams should be given the authority to make decisions regarding bounded execution. This principle can be put into practice by means of a decision-rights matrix associated with interface categories, including time limits for escalation and a permanent record of the assumptions and the reasons for the decisions. The outcome is that issues are resolved more quickly and accountability is clearer.

4.4 Delivery control should extend from the progress of the package to the overall unity of the programme.

Studies into construction in Saudi Arabia show that there are ongoing worries about the knowledge acquired, the controls put in place, and changes made. AlMunifi and Almutairi (2021) advocate for systematic learning in order to improve the way construction projects are carried out, Alotaibi et al. (2025) examine the effectiveness of project-control systems, and Alsulami (2025) demonstrates how change orders can lead to a series of further effects in public construction. These results are very relevant to tourism programmes since changes at the interface can have an effect that spreads through multiple projects; for example, a change in the road alignment could impact the utility corridors, the landscape packages, the land acquisition, the visitor flows and the opening sequences, while a revision of hotel capacity might alter the demand for water, power, waste and labour.

Programme controls must therefore combine schedule, cost, scope, risk and interfaces at a higher level than that of individual contracts. This does not mean that project controls should be replaced by a single master schedule containing unmanageably detailed information. Instead, what is needed is a programme control spine which includes key milestones, shared dependencies, decision dates, capacity assumptions and benefit-critical interfaces. Research into lean megaprojects shows the advantages of reducing fragmentation and improving flow, and studies concerning uncertainty in major design-build projects illustrate the importance of having an early view of interdependence (Ibrahim et al., 2025; Narum & Debnath, 2025). Programme assurance should concentrate on the small number of cross-project conditions which can invalidate an otherwise successful package delivery.

4.5 Sustainability, heritage, and community value are both constraints and benefits in the context of governance.

The value of tourism in Saudi Arabia is closely linked to its natural and cultural resources. Research carried out in AlUla indicates that heritage, entrepreneurship, community attachment and visitor behaviour are not minor social issues but rather form part of the destination's viability (Alharthi, 2025; Elshaer et al., 2024). Filippi and Mazzetto (2024) have also examined sustainability strategies in various major destination developments, and Chalastani et al. (2020) show how ecological protection can be incorporated into spatial planning. These studies point to a change in governance from complying with rules after design to defining environmental and heritage constraints at an early stage in the programme.

When approving projects, sustainability governance ought to set up cumulative thresholds and benefit indicators. A project might be found to comply with environmental requirements yet the overall programme could still exert unacceptable pressure on water, mobility, habitats or cultural landscapes. According to Sharifi (2021) the importance and complexity of assessing urban sustainability are such that indicator systems should be chosen on the basis of their usefulness for decision-making rather than on the basis of their number. The programme dashboard should therefore include both delivery indicators and outcome measures such as the condition of protected habitats, modal accessibility, participation by local companies, the status of heritage conservation, resource intensity and improvements to resident-facing services. The aim is not to reduce regional development to a scorecard but to make sure those strategic trade-offs are visible before they become irreversible.

4.6 Digital coordination is an institutional capability and not the result of buying software.

Saudi research into the development of smart cities points out the opportunities brought about by advanced digital technologies but also stresses the importance of having strategic routes, governance and institutional capacity (Bahreldin et al., 2025). This applies equally to the delivery of programmes. If organisations adopt different definitions, keep their own baselines or fail to provide information that is relevant to decisions, then a common data environment will not be able to overcome the problem of fragmented authority. Digital integration must therefore be guided by common data standards, rules on ownership, version control and jointly agreed performance definitions.

Research into institutionalisation indicates that implementation gaps tend to continue even when technical solutions are on hand since routines, roles, and regulatory structures do not change at the same speed (Reichenbach & Fleischer, 2023). The practical implication for tourism programmes is that digital coordination should be regarded as part of the operating model; shared geospatial data, interface models, schedule milestones, capacity forecasts and benefits indicators should all be treated as programme assets. Governance bodies can then use the same evidence base when making stage-gate decisions, thus avoiding disagreements about which dataset is definitive and allowing cumulative risk to be detected earlier.

5. Framework for the Governance of the Integrated Programme

The synthesis presents an Integrated Programme Governance Framework which is based on six related capabilities: strategic synchronisation, regional systems integration, decision rights, delivery assurance, sustainability and heritage stewardship, and benefits intelligence.

At the top, the Strategic Outcomes Board establishes the case for the regional benefits and approves the portfolio logic. Its function is not to manage the construction work but to determine whether the entire programme still provides a credible route to achievements in the areas of tourism, economic development, spatial planning and the environment. Below it, the Programme Integration Office keeps track of the common assumptions, the dependency maps, the regional capacity models and the benefit-critical milestones. The office serves as the point of integration between the various project organisations and the cross-cutting authorities. Although the project owners remain responsible for delivery, any differences that

affect shared systems or regional outcomes are forwarded for consideration once certain thresholds have been reached.

The third capability is known as interface governance. Every major cross-project dependency should have a named owner, an agreed decision date and clear acceptance criteria which are measurable. In this way, interfaces are transformed from informal coordination issues into governed deliverables. The fourth capability is lifecycle assurance. Evidence obtained from the Saudi construction delivery programme and from broader megaproject research shows that reporting quality, the capability of the owner and the design of the governance structure all have a significant effect on the effectiveness of decisions (Alotaibi et al., 2025; Farid et al., 2025). Stage gates should therefore assess strategic fit, capacity readiness, interface closure, operability, environmental conditions and benefits confidence, not just the maturity of the design or approval of the expenditure.

The fifth capability is adaptive contracting as well as collaboration. As Ma and Fu (2022) point out, sustainable megaproject delivery relies on the interaction between contractual arrangements and broader organisational behaviour. In order to achieve this, contracts must support the desired programme outcomes by including interface obligations, shared milestones, transparent procedures for handling changes and requirements for data. When the commercial boundaries lead to a situation where packages are optimised at the cost of the programme, then governance should create mechanisms for the early resolution of problems and for the fair distribution of changes that affect multiple projects.

The sixth capability is benefits intelligence. Tourism infrastructure should be governed through a chain from outputs to capabilities to regional benefits. Completion of an airport terminal is an output; increased accessible capacity is a capability; improved destination connectivity and visitor distribution are benefits. Completion of a restored heritage asset is an output; conserved and usable cultural space is a capability; enterprise activity, resident value and visitor spending are possible benefits. This distinction prevents asset completion from being treated as proof of strategic success. The proposed architecture, as shown in Figure 1, illustrates a flow going from strategic outcomes via programme integration and governed project interfaces to regional benefits. Figure 2 converts this architecture into lifecycle gates incorporating continuous feedback. Taken together, the two figures stress the fact that governance is cyclical in that evidence obtained from delivery and operations should be able to modify the portfolio's assumptions. In areas that are developing rapidly, this feedback

function is essential since demand, market conditions, technological knowledge and environmental knowledge can change more quickly than the existing master plans.

Integrated programme-governance architecture

From national intent to connected regional outcomes



Figure 1. Integrated programme-governance architecture linking Vision 2030 outcomes, portfolio decisions, programme integration and regional benefits.

Table 2. Proposed operating model for integrated program governance.

Governance layer	Reserved decision rights	Core mechanisms	Evidence / indicators	Failure signal
Strategic Outcomes Board	Portfolio entry, pause, resequencing and benefit trade-offs	Benefits map; portfolio reviews; cross-regional escalation	Benefit confidence; demand assumptions; cumulative risk	Projects remain on plan while regional value case deteriorates
Programme Integration Office	Standards, interfaces and thresholds that cross project	Dependency map; common data; integrated milestones; change	Interface ageing; decision latency; capacity headroom	Conflicting baselines or unresolved dependencies

	boundaries	impact		persist
Regional system authorities	Capacity, corridor, environmental and statutory approvals	Service agreements; reservations; modelling; lifecycle constraints	Mobility, utilities, environment and approval readiness	Asset completion outruns enabling services
Project owners / delivery partners	Bounded design, procurement and construction execution	Package controls; interface agreements; commissioning readiness	Cost, schedule, quality, risk and hand-off status	Local optimisation transfers risk to other packages
Independent assurance / benefits owners	Gate challenge, outcome verification and post-opening learning	Evidence review; readiness tests; benefit tracking; lessons	Operational readiness; realised outcomes; corrective actions	Handover closes without evidence of sustained regional benefit

347

Lifecycle stage-gate and adaptive feedback model

Govern cross-project readiness at the points where assumptions become costly to reverse



348

349

350

Figure 2. Lifecycle stage-gate model showing the evidence points at which cross-project assumptions, interfaces, readiness and benefits should be challenged.

351

352 **6. Discussion**

353 The review points out the significance of this distinction because tourism programmes create
354 value through complementarities by redefining the primary governance issue not as 'how to
355 control very large projects' but as 'how to maintain regional value within a changing system
356 of projects'. Even though a transport asset, a resort, a heritage site, a public realm project and
357 a utility upgrade might each have positive individual business cases, the programme as a
358 whole could still end up performing poorly if their capacities, opening dates or operating
359 models are not properly co-ordinated. Programme governance must therefore address the
360 relationships between assets in the same way that project governance addresses scope, cost
361 and schedule.

362 The argument makes use of the equilibrium approach in relation to the governance of
363 megaprojects (Brunet, 2021). The equilibrium referred to here extends beyond the balance
364 between control and flexibility within a project organisation to include the balance between
365 national ambition, regional carrying capacity, project autonomy and stakeholder legitimacy.
366 Even though high-level governance strategies can accelerate the decision-making process,
367 excessive centralisation might cause local information and operational experience to be
368 suppressed (Ma & Liu, 2025). Conversely, decentralised projects are capable of adapting
369 quickly but may end up setting up incompatible standards or result in duplicated
370 infrastructure. The framework proposed addresses this issue by centralising the assumptions,
371 the interfaces, the thresholds and the benefits, while at the same time decentralising the
372 bounded execution.

373 The Saudi case has three particular features. The first is that destination development
374 generally proceeds with such speed that it leaves no room for planning, design, construction
375 and for the setting up of institutions. The second point is that the tourism value is largely
376 dependent on environmental and cultural resources, and if these are harmed the damage could
377 be irreversible. The third aspect is that the results in various regions rely on the local capacity
378 and on the development of local enterprises, not merely on the number of visitors. In view of
379 these factors, it is all the more essential to establish early limits, clearly define the various
380 trade-offs and get feedback from operational activities. Moreover, research carried out on
381 small cities in Saudi Arabia also shows that the development opportunities and constraints

vary from one area to another, and this supports the idea of differentiated regional governance rather than adopting a one-size-fits-all approach (Alarabi&Alasmari, 2023).

The framework also shows just what role project controls have. Although it is necessary, it is not sufficient for project controls to monitor only contractual progress; at the programme level their purpose is to detect emerging misalignments. A milestone should be regarded as strategic in so far as its delay affects the feasibility of another project, the regional opening logic or the expected benefits. A change should be seen as programme-significant if it has an effect on common capacity, standards, environmental thresholds or on several business cases. On this interpretation, project controls become a governance information system rather than simply a reporting function.

Ultimately, the evidence shows that the maturity of governance should be assessed according to the quality of the decisions it makes rather than the number of procedures it follows. A fully developed programme must be able to explain at each level which decisions are retained, which data are regarded as authoritative, how conflicting objectives are resolved, when independent assurance is required, and how benefits are measured after the assets have been handed over. This is consistent with other research which indicates that governance effectiveness depends on owner capability, stakeholder integration and institutionalisation rather than merely on formal structures (Khan et al., 2021; Reichenbach & Fleischer, 2023).

7. What this means for managers and public policy

For the organisations that are sponsoring the programme, the key issue is to establish a system of governance relating to regional outcomes prior to introducing project controls. The first practical thing to do is to construct a single benefits framework that connects the objectives of the destination with the enabling infrastructure, the operating capabilities and the measurable regional outcomes. The next step is to create a regional dependency model which illustrates the capacities and the sequence of relationships between mobility, utilities, digital systems, the public realm, heritage, the environment and hospitality. The third step consists in preparing a decision-rights map which distinguishes between project authority and programme authority.

Development companies and their delivery partners must regard responsibility for interfaces as a contractual and managerial obligation. For significant interfaces, the names of the owners, the due dates, the acceptance criteria and the escalation thresholds all have to be clearly visible throughout the programme. Change control procedures should assess the cumulative effects in each region and not just consider the impact on cost and schedule of the original package. Furthermore, lessons-learned systems should cover all projects so that recurring causes of change, delays in procurement, failures during commissioning or conflicts among stakeholders can be turned into preventive actions at the portfolio level, using the learning focus identified in the Saudi construction research (AlMunifi& Almutairi, 2021).

Public authorities should ensure that programme assurance includes evidence relating to economic, spatial, environmental and service-readiness aspects. Research into urban sustainability shows that development performance is multidimensional, and evidence from Saudi destinations suggests that environmental and heritage features are central to tourism value (Sharifi, 2021; Filippi & Mazzetto, 2024). Approval gates must therefore verify that the shared systems are ready and that the cumulative impacts stay within the agreed limits. This is especially important in cases where several projects are given approval at different times but make use of the same regional resources.

Digital leaders should focus on data governance not on the number of platforms they introduce. In order to reconcile data from various systems, a common programme ontology must specify the locations, assets, interfaces, milestones, capacities, risks and benefits. The smart-city research carried out in Saudi Arabia shows that digital transformation requires strategic pathways and institutional arrangements, not just technology (Bahreldin et al., 2025). A programme data office can help achieve this by keeping authoritative baselines and making sure that decisions taken by the board can be traced back to the current evidence.

8. Areas where further research is needed and potential future research

The review points out four research priorities. The first of these is that there should be empirical studies concerning governance in relation to portfolios of Saudi tourism projects rather than focusing on individual destinations. Although current research offers useful evidence about AlUla, the Red Sea, Riyadh, Jeddah and other areas, it seldom looks at how decisions across projects are made at a regional level. Comparative case studies could be used to examine whether integrated interface governance has the effect of improving the

sequencing of projects, reducing the spread of changes or enhancing the realization of benefits.

Second, further research should create measurable constructs relating to programme coherence. Possible dimensions are the alignment of demand assumptions, the closure of cross-project interfaces, shared-capacity headroom, decision latency, change propagation, operational readiness and benefits confidence. Constructs of this kind would enable governance maturity to be tested rather than just described.

Thirdly, more substantial longitudinal evidence is needed since many of the regional benefits appear after the project has been completed, whereas the environmental and community impacts may vary as the number of visitors increases. The research programmes should extend from the business case through to operations and should differentiate between asset-delivery success and ongoing regional value.

Fourthly, research into digital governance should examine the way in which common data environments, digital twins and geospatial platforms affect decision-making powers and the level of assurance. The issue is not merely whether digital tools enhance visibility, but whether they influence the speed, quality and accountability of decisions that span different organisations. Doing so would link the increasing amount of literature on smart cities in Saudi Arabia with programme-governance theory and offer evidence for the design of data-intensive tourism programmes.

9. Limitations

The review is limited by the period between 2020 and 2025 as well as by the availability of peer-reviewed, DOI-indexed evidence. Although this restriction enhances the recency and verifiability of the review, it means that earlier foundational studies and more recent operational evidence—which may still be awaiting publication in journals—have been excluded. Since research specifically concerning Saudi programme governance is less extensive than that available in the wider megaproject literature, a number of the mechanisms in the proposed framework are instead adaptations to the local context rather than being based on locally established causal relationships. Furthermore, the review includes studies that use different methods and have different units of analysis; as a result, it facilitates conceptual

synthesis rather than allowing for the estimation of effect sizes. These limitations underline the importance of carrying out empirical testing of the framework in a variety of Saudi regions and project portfolios.

10. Conclusion

The tourism infrastructure outlined in Vision 2030 should be viewed as a linked regional initiative rather than as a series of separate projects. As the literature examined in this case shows, strategic objectives can be undermined by fragmented decision-making powers, the lack of management of shared resources, delayed resolution of interfaces, a focus on individual projects, and an inadequate connection between the completion of assets and regional benefits. On the other hand, evidence from Saudi Arabia indicates that considerable efforts have been made to incorporate sustainability, heritage, mobility, digital systems and destination development, thus establishing a solid basis for more advanced programme governance.

In response, the proposed Integrated Programme Governance Framework establishes six capabilities which link strategy to delivery: portfolio alignment, regional systems integration, explicit decision rights, programme assurance, sustainability and heritage stewardship, and benefits intelligence. The main idea behind it is selective integration, whereby project teams keep authority over the aspects of execution that are within their bounds, while programme governance focuses on the decisions that have an impact on shared infrastructure, cumulative risk, interfaces between projects, regional outcomes or long-term public value.

This method alters the way in which success is understood. A tourism programme is not considered successful just because its facilities open on schedule; rather, it is successful to the extent that these facilities work together to produce destinations which are accessible, resilient and environmentally credible and which generate ongoing regional value. Governance is thus the means of maintaining the relationship between investment and results as the circumstances change. In the case of Saudi Arabia, the practical chance is to establish this relationship early on so that rapid development does not lead to fragmented systems. As for research, the next stage should be to test the framework over a long period and to find out

which governance mechanisms explain programme coherence, adaptive capacity and the actual regional benefits most clearly.

References

1. Chalastani, V. I., Manetos, P., Al-Suwailem, A. M., Hale, J. A., Vijayan, A. P., Pagano, J., Williamson, I., Henshaw, S. D., Albaset, R., Butt, F., Brainard, R. E., Coccossis, H., Tsoukala, V. K., & Duarte, C. M. (2020). Reconciling tourism development and conservation outcomes through marine spatial planning for a Saudi giga-project in the Red Sea (The Red Sea Project, Vision 2030). *Frontiers in Marine Science*, 7, 168. <https://doi.org/10.3389/fmars.2020.00168>

2. Iswan, Khan, A., Kadir, F. K. A., Jabor, M. K., Anis, S. N. M., & Zaman, K. (2021). Saudi Arabia's sustainable tourism development model: New empirical insights. *International Social Science Journal*, 71, 109-124. <https://doi.org/10.1111/issj.12261>
3. Filippi, L. D., & Mazzetto, S. (2024). Comparing AlUla and The Red Sea Saudi Arabia's giga projects on tourism towards a sustainable change in destination development. *Sustainability*, 16(5), 2117. <https://doi.org/10.3390/su16052117>
4. Alharthi, G. W. (2025). Tourism and cultural entrepreneurship in Saudi Arabia: The case of family businesses in AlUla. *Journal of Arabian Studies*, 14(1), 28-49. <https://doi.org/10.1080/21534764.2025.2452500>
5. Abid, M. B., Elawady, A., & Shamim, R. (2025). Exploring AlUla, Saudi Arabia: A journey through history, heritage, resources, and tourism. *GeoJournal*, 90, 172. <https://doi.org/10.1007/s10708-025-11423-4>
6. Elshaer, I. A., Alyahya, M., Azazz, A. M. S., & Fayyad, S. (2024). Community attachment to AlUla heritage site and tourists' green consumption: The role of support for green tourism development. *Heritage*, 7(6), 2651-2667. <https://doi.org/10.3390/heritage7060126>
7. Zaki, S. K., & Hegazy, I. R. (2023). Investigating the challenges and opportunities for sustainable waterfront development in Jeddah City. *International Journal of Low-Carbon Technologies*, 18, 809-819. <https://doi.org/10.1093/ijlct/ctad062>
8. Alhubashi, H., Alamoudi, M., Imam, A., Abed, A., & Hegazy, I. (2024). Jeddah strategic approaches to sustainable urban development and Vision 2030 alignment. *International Journal of Low-Carbon Technologies*, 19, 1098-1111. <https://doi.org/10.1093/ijlct/ctae055>
9. Alamoudi, M., Imam, A., Majrashi, A., Osra, O., & Hegazy, I. (2024). Integrating intelligent and sustainable transportation systems in Jeddah: A multidimensional approach for urban mobility enhancement. *International Journal of Low-Carbon Technologies*, 19, 1301-1314. <https://doi.org/10.1093/ijlct/ctae078>
10. Hegazy, I. R., Hammad, H. A., Munshi, A. M., Alqurashi, A. A., & Bahreldin, I. Z. (2024). Pathways to green urbanism: Evaluating Jeddah's environmental sustainability progress and prospects. *International Journal of Low-Carbon Technologies*, 19, 1177-1188. <https://doi.org/10.1093/ijlct/ctae051>
11. Bahreldin, I., Samir, H., Maddah, R., Hammad, H., & Hegazy, I. (2025). Leveraging advanced digital technologies for smart city development in Saudi Arabia:

- Opportunities, challenges, and strategic pathways. *International Journal of Low-Carbon Technologies*, 20, 834-847. <https://doi.org/10.1093/ijlct/ctaf044>
12. Alismail, A. A. A., Alqahtany, A., Alhamoudi, A. M., Aljoaib, S. I., & Almazroua, S. M. (2025). Framework for improvement of national urban strategy model of Saudi Arabia by logical comparison with best practices in the world. *Journal of Sustainability Research*, 7(1), e250006. <https://doi.org/10.20900/jsr20250006>
13. Klingmann, A. (2023). Rescripting Riyadh: How the capital of Saudi Arabia employs urban megaprojects as catalysts to enhance the quality of life within the city's neighborhoods. *Journal of Place Management and Development*, 16(1), 45-72. <https://doi.org/10.1108/JPM-D-2021-0062>
14. Helmi, M., Hegazy, I., Qurnfulah, E., Maddah, R., & Ibrahim, H. S. (2021). Using sustainable development indicators in developing Saudi cities - case study: Makkah city. *International Journal of Low-Carbon Technologies*, 16(4), 1328-1340. <https://doi.org/10.1093/ijlct/ctab053>
15. Alarabi, S., & Alasmari, F. (2023). Challenges and opportunities for small cities in the Kingdom of Saudi Arabia: A study of expert perceptions. *Sustainability*, 15(8), 6960. <https://doi.org/10.3390/su15086960>
16. AlMunifi, A. A., & Almutairi, S. (2021). Lessons learned framework for efficient delivery of construction projects in Saudi Arabia. *Construction Economics and Building*, 21(4), 115-141. <https://doi.org/10.5130/AJCEB.v21i4.7858>
17. Alotaibi, R., Sohail, M., & Soetanto, R. (2025). Modelling project control system effectiveness in Saudi Arabian construction project delivery. *Buildings*, 15(18), 3426. <https://doi.org/10.3390/buildings15183426>
18. Alsulami, B. T. (2025). Change orders and their domino effect: Insights from public construction projects in the Kingdom of Saudi Arabia. *Buildings*, 15(1), 87. <https://doi.org/10.3390/buildings15010087>
19. Khan, A., Waris, M., Panigrahi, S., Sajid, M. R., & Rana, F. (2021). Improving the performance of public sector infrastructure projects: Role of project governance and stakeholder management. *Journal of Management in Engineering*, 37(2). [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0000886](https://doi.org/10.1061/(ASCE)ME.1943-5479.0000886)
20. Brunet, M. (2021). Making sense of a governance framework for megaprojects: The challenge of finding equilibrium. *International Journal of Project Management*, 39(4), 406-416. <https://doi.org/10.1016/j.ijproman.2020.09.001>

21. Ma, L., & Fu, H. (2022). A governance framework for the sustainable delivery of megaprojects: The interaction of megaproject citizenship behavior and contracts. *Journal of Construction Engineering and Management*, 148(4). [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0002251](https://doi.org/10.1061/(ASCE)CO.1943-7862.0002251)
22. Xue, J., Shen, G. Q., Li, Y., Wang, J., & Zafar, I. (2020a). Dynamic stakeholder-associated topic modeling on public concerns in megainfrastructure projects: Case of Hong Kong-Zhuhai-Macao Bridge. *Journal of Management in Engineering*, 36(6), 04020078. [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0000845](https://doi.org/10.1061/(ASCE)ME.1943-5479.0000845)
23. Xue, J., Shen, G. Q., Yang, R. J., Zafar, I., & Ekanayake, E. M. A. C. (2020b). Dynamic network analysis of stakeholder conflicts in megaprojects: Sixteen-year case of Hong Kong-Zhuhai-Macao Bridge. *Journal of Construction Engineering and Management*, 146(9), 04020103. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001895](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001895)
24. Lu, Y., Li, Y., & Cui, Q. (2020). Organizational behavior and governance of megaprojects. *Journal of Management in Engineering*, 36(3). [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0000768](https://doi.org/10.1061/(ASCE)ME.1943-5479.0000768)
25. Ma, T., & Liu, Q. (2025). Building success: Top-level governance strategies for transport megaprojects. *Research in Transportation Business & Management*, 62, 101449. <https://doi.org/10.1016/j.rtbm.2025.101449>
26. Farid, P., Klakegg, O. J., & Bakke, C. (2025). Mega construction projects: Governance challenges for the project owner. *Procedia Computer Science*, 256, 1474-1481. <https://doi.org/10.1016/j.procs.2025.02.281>
27. Narum, K. B., & Debnath, S. (2025). Sustainable megaproject delivery and uncertainty in design-build cable-stayed bridges. *Procedia Computer Science*, 256, 1706-1716. <https://doi.org/10.1016/j.procs.2025.02.309>
28. Ibrahim, A., Zayed, T., & Lafhaj, Z. (2025). Trends and gaps in lean construction practices for construction of megaprojects: A critical review. *Alexandria Engineering Journal*, 118, 174-193. <https://doi.org/10.1016/j.aej.2025.01.046>
29. Reichenbach, M., & Fleischer, T. (2023). From ambition to implementation: Institutionalisation as a key challenge for a sustainable mobility transition in Germany. *Energy, Sustainability and Society*, 13, 14. <https://doi.org/10.1186/s13705-023-00392-6>

30. Sharifi, A. (2021). Urban sustainability assessment: An overview and bibliometric analysis. Ecological Indicators, 121, 107102.
<https://doi.org/10.1016/j.ecolind.2020.107102>

UNDER PEER REVIEW IN IJAR