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Dimensions and Mechanisms of Stakeholder Integration in Urban Development Projects

Juha-Antti Rankinen
Department of Industrial Engineering and Management, University of Oulu, Finland
juha-antti.rankinen@oulu.fi

Harri Haapasalo
Department of Industrial Engineering and Management, University of Oulu, Finland
harri.haapasalo@oulu.fi

Sari Hirvonen-Kantola
School of Architecture, University of Oulu, Finland
sari.hirvonen-kantola@oulu.fi

Mikko Holm
Department of Industrial Engineering and Management, University of Oulu, Finland

Purpose: This research aims to expand stakeholder integration in urban development projects by identifying key integration mechanisms and activities required for productive stakeholder collaboration.

Study design/methodology/approach: The study follows a theory elaboration approach and a multiple-case study method. The case projects are three urban development projects located across Finland.

Findings: The findings include six key integration mechanisms, their respective challenges, and the conceptualisation of three integration dimensions.

Originality/value: The findings offer practical implications regarding stakeholder integration in complex project settings. In addition, the three-dimensional model offers a novel conceptualisation of the collaboration process.

Introduction

Modest productivity development in the construction industry (Pekuri et al., 2011) has led researchers and practitioners to come up with new project delivery models and concepts, such as project alliancing (Hietajärvi et al., 2017; Lahdenperä, 2012) and other collaborative methods (Tampio & Haapasalo, 2024). The central objective of inter-organisational collaboration is to unify the whole project group—originally from different permanent organisations—to work toward common objectives and synergise their competencies to produce better solutions and create more value jointly (McGahan, 2021). Increased collaboration has shown improvements during the project and in the project's output (Tampio et al., 2023).

Urban development projects are typically large urban undertakings with the potential to support sustainable urban development and objectives defined therein, with an internal rate of returns which may not be sufficient to attract financing on a purely commercial basis (Law Insider, n.d.). As such, they combine a diverse set of stakeholders—any groups or individuals who can affect or are affected by achieving a project's objectives or purpose (Freeman, 1984)—raising additional interdependencies and uncertainty. Consequently, effective management of inter-organisational integration, that is, integration between organisations, teams, and individuals to achieve a state where project organisations work as a unified entity (Turkulainen et al., 2017), is central to the success of urban development projects (Burt et al., 2021).

In complex project settings, integration mechanisms are used to implement and facilitate inter-organisational collaboration (Tampio et al., 2023). Still, achieving an efficient and successful

collaborative state remains a challenge in practice. It goes beyond simple deployment of integration mechanisms, especially when the main stakeholders are not closely familiar with each other (Rankinen et al., 2022). This study aims to identify mechanisms urban development projects deploy to advance inter-organisational integration and how this deployment should be managed. As such, we formulated the following research questions:

RQ1: What are the main integration mechanisms and their respective challenges in the selected urban development projects?

RQ2: What dimensions and activities are needed to manage key stakeholders' integration in the front end of urban development projects?

We employed multiple case studies (Eisenhardt, 1989) and theory elaboration methods (Fisher & Aguinis, 2017). We studied three urban development projects in Northern Europe to identify the key mechanisms enabling stakeholder integration—and, thereby, collaboration—and investigate the challenges within these mechanisms to identify and describe how the stakeholder approach fosters project integration. We aimed not to generate a new approach to urban development or design a new planning process but to improve project stakeholder management.

The study identified six key integration mechanisms for urban development projects: participatory detailed urban planning, integrative contracts, inter-organisational organisation, encouragement of co-creation, transparent inter-organisational communication, and technological integration in participatory urban planning. We identified three key integration challenges in urban development projects: ambiguity about whether urban development projects should be approached as a project instead of a process, emphasis on holistic integration management and governance, and utilisation of objective-sensitive integration mechanisms. Finally, we elaborated on how three integration dimensions—enabling collaboration, project-specific collaborative activities, and integration planning and governance—are all present and required for managing stakeholder integration in urban development projects.

Literature background

Stakeholder management and integration

Project stakeholders are those individuals and entities that may affect or be affected by a project (Freeman, 1984). The stakeholder approach aims to enhance management's capabilities to understand the stakeholder environment (Aaltonen & Kujala, 2016), make informed strategic decisions (Tampio & Haapasalo, 2024), align stakeholders' interests (Hietajärvi et al., 2017), and minimise the negative impacts certain stakeholders may have upon the project (Bourne & Walker, 2005). Managing stakeholders efficiently is one of the key areas of project management today, as projects are highly embedded in inter-organisational environments (Tampio et al., 2022). Since project organisations have various relationships with diverse groups of stakeholders, stakeholder management is essentially creating and managing these relationships by considering and balancing their relevant interests (Lin & Lee, 2011). In stakeholder management, the fundamental issue arises from the question of who the stakeholders are that the project has and should be interacting with (Freeman, 1994), as limited project resources make managing all stakeholders equally unfavourable (Greenley et al., 2004).

Construction projects have suffered from poor project performance, which is partially caused by the inability of project participants to work effectively together (Baiden et al., 2006). In project environments, organisations tend to encounter a variety of sources of uncertainty and interdependence (Artto et al., 2008), requiring them to form linkages with their constituents to manage tasks efficiently (Liu et al., 2021). These relationships occur not only as dyadic ties but

also as multilateral contracts within networks of stakeholders (Ali & Haapasalo, 2023). Integration aims to facilitate these inter-organisational linkages, and it can be regarded as a process whereby various organisations and other stakeholders are united to work collaboratively toward common project objectives (Hietajärvi et al., 2017). Efficient management of integration should match the degree of integration with the prevailing complexity, requirements, and demands of a project (Turkulainen et al., 2017).

Integration mechanisms are the means, tools, and methods employed to enable and foster stakeholder integration (Nikulina et al., 2022). These mechanisms can be formal or informal (Bygballe et al., 2015). Formal mechanisms are financial incentives, contracts, rules, and workshops that are formed to foster integration. Informal mechanisms consist of shared values of project organisation and a common understanding of the project goals and objectives. Individual mechanisms typically have a specific primary purpose but also indirectly enhance integration (Tampio & Haapasalo, 2024). Mitropoulos and Tatum (2000) further divide integration mechanisms into contractual, organisational, and technological mechanisms. Contractual mechanisms are formal integration mechanisms that establish an administrative foundation for the project and guide the project in the desired direction (Tampio & Haapasalo, 2024). Organisational mechanisms involve different methods and management systems to foster inter-organisational cooperation and elevate team effectiveness (Mitropoulos & Tatum, 2000). Technological mechanisms typically involve leveraging information technologies to aid collaboration (Tampio & Haapasalo, 2024).

To support the efficient delivery of urban development projects, a central activity enabling inter-organisational integration is the early involvement of relevant stakeholders, be they organisations or citizens. Early involvement refers to incorporating stakeholders into the project from the earliest moments to formulate project objectives together and determine how these objectives will be reached (Aapaoja et al., 2013). As late revisions to a project are usually more complicated to implement and bear higher costs (Engwall, 2002), the opportunities to influence project goals, plans, and decisions are of utmost during the project's front end. Furthermore, shortcomings have been identified in citizen engagement in urban development projects where inter-organisational integration occurs (Diamond & Liddle, 2005; Majamaa, 2008). Urban initiatives have often been contests over how power in decision-making is exercised, and progress on joint planning or commissioning has not resulted in a discernible shift in resources or responsibilities (Diamond & Liddle, 2005). Understanding the predispositions of stakeholders and their influences on a project is a prerequisite for integrating critical stakeholders and their capabilities (Aapaoja & Haapasalo, 2014), and involving stakeholders enables informed decision-making regarding who should be integrated and what degree they should be integrated to (Turkulainen et al., 2017).

Stakeholder Integration in Urban Change-making Approaches

Urban development is a complex and time-consuming process viewed from policymaking perspectives (Healey, 1991) and project development (Majamaa, 2008). Integrative and collaborative practices are nothing new in urban planning. The basic premise of collaborative urban planning is to incorporate stakeholders, such as contractors and designers, who are already in the zoning phase (Healey, 1998). In this line, Public-Private-Partnership-based real estate service delivery projects have been distinguished (Majamaa, 2008), whereas in the context of urban regeneration 'joining up' practices, holistic government and multi-agency partnerships have been applied (Diamond & Liddle, 2005). In parallel, there has been a development towards considering the feasibility of the plan (e.g., Friedmann, 2003), such as the policy context and resources, and partnerships as informal institutional arrangements

binding principal stakeholders in a coalition working on an agreed agenda, have been utilised (McCarthy, 2007).

Considering 'designing as making sense together' (Forester, 1989, pp. 119–133), it has been criticised that the stakeholders included in planning can have a corporatist interest to exclude emerging interests (Sager, 1994). In practice, it has been concluded that decision-making follows political and economic control and bargaining. The planner tries to cope with the complexities of power relations, pressure, collegial duties, and resources (Flyvbjerg, 1998; McGuirk, 2001). These challenges imply multiple managerial, strategic, and operational requirements (Diamond & Liddle, 2005). Managerial requirements include coping with ambiguity and complexity, understanding diverse sectors and organisational styles, policy learning between the public and private agencies, interaction and facilitation skills, trust building, adaptability, risk-taking, and proactivity. Strategic requirements include objective setting, joint strategising, exploration and experimentation, networking and managing stakeholder relationships. Operational requirements include identifying and including disadvantaged groups, accessing funding regimes, public relations and promotion of an area, and workload planning. In terms of team integration, this includes gaining commitment, pooling resources, achieving a common agenda and shared direction, listening, negotiating, bargaining, conflict resolution, managing tensions, identification of vested interests, and achieving transparency (Diamond & Liddle, 2005; Hietajärvi et al., 2017).

While we recognise that urban planning has been subject to examinations of democratisation (e.g., Friedmann, 1987) and 'partisan mutual adjustment' (e.g., Sager, 1994), incorporation of stakeholders into the planning process enables a more comprehensive understanding of implementation-related issues during the project but also project-output-related desires of citizens and other end users (El-Gohary et al., 2006; Koontz, 2005). As such, integration and involvement can help bridge the gap between urban planning and project implementation, which are often regarded as separate processes (Väyrynen, 2007). Urban planning is referred "to the process of envisioning alternative futures for an urban area, setting goals and objectives, and formulating implementing strategies to reach the alternative future. Urban planning is the process that results in urban plans" (Caves, 2005, p. 479). Literature in urban planning, integrative urban development and urban regeneration refers to processes. Whereas a process is defined as a series of actions to achieve a certain type of generic result, usually implying a formal or set order of doing things, a project is typically an individually dedicated set of tasks that must be completed to arrive at a particular goal or outcome. A process is more loosely coupled, and the project is a more tightly defined set of activities. Combining the two domains of urban planning and project-based urban design, Urban Design Management has been introduced, aiming at integrative development by mediating a mutually beneficial search for development opportunities in real estate development, place-making, and urban planning (Edelman, 2007). Elevated managerial intention and project-based focus enable a holistic but productive approach to urban development projects, including preparation for decision-making as well as implementation (Väyrynen, 2007).

Notably, in project-oriented businesses, transactions are implemented as projects. The distinct cost, time, quality constraints, and defined stages make the entirety more manageable. Furthermore, early project definition phases determine the end product's characteristics and the pathway to reach it. In urban planning, the practice has remained around the process, loosening these boundary conditions and resulting in less control over the efficient project delivery. This entails urban development being considered rigid and suffering from poor project performance, especially in relation to time (Zou et al., 2014). As the projects become more complex and the number of stakeholders rises, the project organisation may become fragmented and the project may last longer. Consequently, this fragmentation leads individual organisations to focus on

their contractual deliverables and self-interests, limiting innovation and overshadowing the common objectives of a project (Forgues & Koskela, 2009). This may cause various drawbacks, such as long lead times, unintended reorientation of project goals, and unsatisfactory solutions.

Projects, in general, could pursue higher levels of inter-organisational collaboration to remedy these persistent problems. Collaborative delivery models have shown advancements in large construction (Saukko et al., 2020) and gained popularity among urban development projects (Hietajärvi et al., 2017; Koontz, 2005). Inter-organisational integration and early involvement provide meaningful opportunities for these projects to serve a broad set of stakeholders better and deliver more value (Tampio & Haapasalo, 2024). Furthermore, they aid in aligning project objectives and enable the whole project organisation to work together effectively (Baiden et al., 2006). Early involvement enables organisations to merge the competencies of the project consortium early, thus seeking more comprehensive and feasible project deliverables (Lahdenperä, 2012). On the other hand, inclusive planning entails short-term costs and is time-consuming. Thus, collaboration needs to be approached to allow the public and other stakeholders to gain additional value (Faehnle & Tyrväinen, 2013).

Methodology

Research method

This research follows the theory elaboration approach (Fisher & Aguinis, 2017; Ketokivi & Choi, 2014) and the multiple-case study method (Eisenhardt, 1989). In theory elaboration, the empirical data further illustrate an existing conceptual or theoretical framework in a specific context (Fisher & Aguinis, 2017). Our theory elaboration is based on the intersection of stakeholder management, integration, early involvement, and urban development and examining the data collected with a qualitative multiple-case study. A multiple-case study was chosen for its suitability to identify phenomena in a real-world context to uncover detailed insights (Eisenhardt, 1989) and is a feasible approach for theory elaboration research (Ketokivi & Choi, 2014).

From prior literature, we build upon our view that increased inter-organisational integration, when successfully executed, is desirable from the project management perspective due to the increase in value co-creation. The case studies validate this presumption and identify details of the phenomena in an urban development context. Through identified concepts of the literature review and analysed mechanisms and challenges from the case studies, our research elaborates on how stakeholder approach and organisational integration can and should be leveraged to provide value and opportunities for improved project performance in urban development projects. In doing so, we illustrate the three integration dimensions that are necessary for the holistic management of stakeholder integration.

Data collection and analysis

This research began with a literature review on stakeholder integration in the context of urban development projects. The aim was to explore and identify the stakeholder integration mechanisms and related challenges in urban development projects. Following our literature review, we analysed three large-scale urban development projects near three cities in Finland to inductively identify stakeholder integration mechanisms based on contractual, organisational, and technological categorisation (Mitropoulos & Tatum, 2000). Through the cases (Table 1), we analysed the main mechanisms and respective challenges in key stakeholders' integration. All three selected case study projects illustrated an advanced level of collaboration. However, none followed a strict alliance contract model. The cases were selected based on their relevancy to the study, positive approach to overall development, access to their

public materials, positive response to research activities, and profound access to data and direct contacts of informants. Furthermore, we selected projects favouring the collaborative approach to support literal replication logic (Yin, 2015).

Table 1. Data sources in analysed case projects

Material	Content and Perspective
Case A: Hiukkavaara Center	
City's project website	Neighbourhood development objectives and descriptions of the development project progress
INURDECO project report and other related reports	Comprehensive description of development goals and collaboration methods in practice
City of Oulu policies and zoning documents	Zoning practices and details in Hiukkavaara Center
Semi-structured interview: Specialist from the City of Oulu	A comprehensive description of development objectives and project progress of Hiukkavaara Center
Case B: Kalasatama	
City's project website	Development goals and description of the project
Fiksu Kalasatama project website	Collaborative development implementation in different sub-projects
Forum Virium website	The organisation of development activity
City of Helsinki policies	Policies related to plot lease and conveyance and innovative public procurement
Semi-structured interview: Specialist from Forum Virium Helsinki	Project's organisational foundation and collaborative implementation in practice
Case C: Leinelä 1	
City of Vantaa archive	Neighbourhood development objectives and organisation and schedule of the project in different stages
Semi-structured interview: Specialist from the City of Vantaa	Description of development project objectives, progress, and used collaborative methods

The first case project is the Hiukkavaara Center development in Oulu. This greenfield project aims to create housing and services for some 20,000 residents. The second case project is the Kalasatama district development in the capital, Helsinki. This brownfield project is built upon an existing harbour. The area covers 170 hectares and will offer housing to over 25,000 residents and employ over 10,000 citizens. The third case project covers Leinelä 1 district development in Vantaa. It covers 33 hectares of greenfield development, housing, and services built for 2,600 residents. All three projects include detailed urban planning that regulates development by the definition of building rights, efficiencies, dimensions, and functions in detail, attached to landowning information. The municipalities initiated and led all these projects, but they developed into public-private-people partnerships.

We employed two methods of data collection. The primary method was the gathering and compilation of publicly available project materials. The data collection began with gathering project materials and documents and reading project websites, reports, and news articles. Semi-structured interviews were held with specialists from each case project as a secondary method. The interviews were open-ended discussions that aimed to fill in information gaps to, together with publicly gathered materials, provide a profound understanding of the integration mechanisms used in the case projects. In addition, the interviews sought to validate the publicly available reports, news, and other documentation gathered a priori. Each interview followed the same thematic approach based on contractual, organisational, and technological classification (Mitropoulos & Tatum, 2000). Depending on contextual differences, detailed questions were asked to gain a deeper understanding of the cases and uncover intricate insights.

The analysis began with detailed case descriptions to understand the main events, project stages, stakeholders, and challenges of the case projects. Next, project documentation and interview findings were synthesised and analysed and identified integration mechanisms were

categorised. The case projects were analysed within cases as well as cross-cases. Finally, the activities and dimensions required to tackle the identified challenges were elaborated based on both the literature covered and the data collected.

Case descriptions

In Finland, detailed plans can be initiated and paid for by both landowners and municipalities. However, landowners' right to choose whether to develop their property is exceptionally well protected by the Land Use and Building Act. The municipality chooses the scale of the planned area and a delivery model for the urban development project based on its strategic goals. The developer-contractors depend on sharing the municipality's aims as it holds a planning monopoly. On the other hand, the local government is motivated to reach an agreement for financial contribution. Key objectives are hereafter jointly set to guide the project toward completion. Notably, from a project management perspective, changes have occurred in the planning process regarding project initiation and termination. However, when launching the preparation of a new plan, a Participation and Assessment Scheme must be drawn up and publicised. This scheme enlists key stakeholders and covers participation and interaction procedures as well as processes for assessing the plan's impacts. Whereas the national spatial planning system frames urban development projects process-wise at the macro-level, stakeholder integration practices can be developed on a local and project basis.

Hiukkavaara Center: The City of Oulu sought beyond-traditional levels of collaboration in the area's development. This was partly because of the involvement of an integrative urban development concept (INURDECO) framework for gathering key project partners into a collaborative project entity, including both innovations in a detailed planning process. The city opted out of the traditional tender process to find suitable project partners and developers and invited developers based on negotiations. The key project partners selected were contracted under a multiparty agreement that mandated sub-areas and plots for each developer and defined schedules for the construction of the allocated plot.

Stakeholder integration began before detailed planning initiation. The city wanted to integrate the developers into the zoning process and co-develop the detailed plan to ensure mutual satisfaction. The zoning was carried out as a flexible process. Objectives were co-created by developing a winter city strategy, a vision and an unofficial policy for the neighbourhood. Process-wise, a tentative detailed plan draft was prepared and exposed for stakeholder participation, allowing an extra feedback loop. The district centre was designated as a 'centre', allowing flexible development for services, office buildings, governance facilities, and apartments, rather than specifying these in the detailed plan. Furthermore, broader interaction with other actors and citizens was established to evaluate and integrate their opinions into planning and development. For this, the project created an online forum for all interested parties and leveraged the use of social media platforms. Physical meetings and various workshops were also held, welcoming any interested parties to co-development. The project relied on interaction as a key to achieving satisfying outcomes, and successful interaction hastened the zoning process by reducing appeals to the introduced plan. Limited involvement in collaborative activities was a challenge, though, due to delayed political decisions regarding nearby public infrastructure and location in the greenfield zone.

In monthly meetings, progress status was checked, topical questions were discussed, and upcoming workshops were planned. In these meetings, partners could share their ideas. Many distinct workshops were held with various themes. Attendees consisted of relevant project partners and external advisors. The methods used in workshops varied widely depending on the subject and attendees. For instance, a cave automatic virtual environment visualised the plans.

Kalasatama: The Fiksu Kalasatama (Smart Kalasatama) project was initiated to develop the City of Helsinki's strategic objectives, expecting smart solutions and regenerating new economic activity. The project was a backbone for the district's development and an integrating platform for all stakeholders. The umbrella project coordinated the development and progress of the area's sub-projects, facilitated innovation activity, and spread awareness about the project. The city managed the project on a strategic level and by a city-owned innovation agency on an operative level. The key focus was collaborative development with the area's residents, the companies involved, and pilots in a real city environment.

From the project's initiation, the area was to be co-developed with local actors but without strict early-binding contracts. Light collaborative contracts were tried but eventually left out as they were perceived to complicate the development. Distinct contracts were made for plot leasing and conveyance, with specific caveats such as requirements for showcasing innovative solutions for sustainable construction and smart building service technology solutions.

One of the core aspirations of the project was the incitement of innovation. Workshops and gatherings were held to hear the claims and proposals of stakeholders, including citizens. An innovation club was formed within the project that gathered interested parties at the same table to bolster innovation and inspire experimentation. Collaboration opportunities were enhanced by establishing a physical co-creation space for the area's developers. It was a pathway to showcase different proposals for the area and propositions for smart city solutions. Feedback for this space was positive, and the concept will be replicated in the city's future projects.

External communication from the project was conducted via project websites, city websites, and social media. Sub-projects used technological platforms and tools depending on their needs and customary habits. A 3D city model was used to conceptualise the whole project area and gather data from sub-projects under the same platform, enabling the development, planning, and showcasing of smart city solutions on a virtual model. The model was open for any interested parties to foster inclusion and ideation. Additionally, a cave automatic virtual environment was used to visualise the plans. A multipurpose online portal was launched for the district to enhance collaboration between the area's actors and enable online interaction for residents via discussion forums, marketplaces, and polling features. The platform further enhanced the rapid development, deployment, and piloting of new ideas and innovations.

Leinelä 1: From the initiation, the City of Vantaa developed the neighbourhood in collaboration with its developers and constructors as a Public-Private-People-Partnership. To call for contractors, an architectural competition was launched and assessed based on both qualitative and quantitative criteria. The project's contractual premise was built upon a multiparty contract, including the city, five selected developer partners, and a development company established by these five companies. The objective of the contract was to agree on zoning, townscape, and urban design. The contract defined the allocation of plots to be built in segments and shared equally among the developers. It was decided that plot leasing and conveyance would happen only after the detailed planning process. Since the developers did not know their designated plots beforehand, it fostered the commitment to collaborative design and planning for the whole area.

The contracts dictated the schedule. The site leasehold agreement defined that the developers needed to start construction on their designated plots, or else the city could withdraw from selling further plots for the partner. This limited the chance of unfavourable areas falling behind their development schedule. The city perceived this as a good approach. Furthermore, the contract defined stakeholders' responsibilities regarding the area's marketing. The development company and city-owned marketing company were responsible for providing and maintaining

parking facilities and marketing the whole area. In contrast, the marketing of single properties was each plot owner's responsibility.

The core project partners were selected based on design proposals, interviews, and prior references. Key measures in the selection were capability, expertise for the set objectives, motivation, and commitment to the project. The formation of a core team was vital for the project, as the five partners brought in expertise and resources the city otherwise lacked. Even though the collaboration's foundation was in the multiparty contract, mutual trust played a key role. The collaborative detailed planning work began before signing the contract. This trust and good spirit were not taken for granted; the municipality wanted to enhance and maintain them as it progressed. A shared vision and common objectives were seen as vital for the project organisation. In practice, this was done with so-called key imagery to focus on a joint vision. It was further instilled with various events and activities, such as seminars, workshops, and excursions. The key challenge regarding the inter-organisational integration was personnel turnover during the long project. As the personnel change, so do the set objectives and vision. To tackle this, the city's dedicated multi-body steering group ensured long-term strategy alignment.

Another group was established to intensify collaboration between the municipality and its key partners. The group oversaw the project's progress and subprojects and set yearly objectives and schedules. All project partners were required to attend monthly meetings. Various additional meetings and working groups were established. The development company formed by the core partners was seen as an opportunity for the project partners to freely discuss the project and development without the municipality, which was the leader in other meetings.

Email was the main method of communication and information sharing besides physical meetings. The project leveraged a 3D city model, a valuable tool for conceptualising unbuilt plans. It was used both in internal development and external communication and marketing. The city's websites were the main tools for marketing and communication of the project. As the project progressed and new avenues of communication gained popularity, project websites transitioned into social media pages.

		Integration mechanisms in selected case projects		
		Contractual mechanisms	**Organizational mechanisms**	**Technological mechanisms**
Hiukkavaara	Mandatory Participation and Assessment Scheme	• INURDECO-framework • Collaboration contracts with key project partners • Neighborhood's construction guided by PPPP-based detailed planning, flexible detailed plans, and purpose-led site leasehold agreement	• Project partners meet regularly • Various collaboration enhancing methods used • Open design competition • Involvement of research activity	• Use of smart 3D city model • Project bank for documents • Use of cave automatic virtual environment (CAVE) • Involvement of residents and users via social media, internet forums, and UBI-screens
Kalasatama		• Fiksu Kalasatama project established to develop the area and coordinate its sub-projects • Construction guided by PPPP-based & purpose-led site leasehold agreement • Established a development company for the district	• Collaboration implemented through experiments and events • Stakeholders of the area organized and met regularly • Collaborative development space for area's developers	• Use of teamwork applications • Residents involved and informed via websites, emails, social media and resident portal • Smart 3D city model available to use for all participants
Leinelä		• Multiparty contract between the city and its five partners • PPPP-based detailed planning, and defined terms for plot lease and conveyance • A development company formed by the five partners	• Long term strategy alignment ensured by a dedicated multi-body steering group • Prior relations, references, and design competition key part of the partner selection • Unified vision	• Email used as a main internal communication tool for messaging and document sharing • 3D city model used to demonstrate plans and designs • The use of a so-called key imagery to focus on a joint vision.

Figure 1. Integration mechanisms in analysed case projects.

Main integration mechanisms and respective challenges

All three case projects showcased multiple integration mechanisms (Figure 1). Contractual mechanisms formed the basis for collaboration, but they remained limited in terms of building mutual trust among stakeholders. They largely impacted the initial integration, how the partners were chosen, at what stage they were involved in the planning and project development, and the delivery model chosen. Organisational mechanisms were crucial in building and maintaining collaboration and trust in daily operations across the project life cycle. Technological mechanisms were mainly tools used to jointly envision the future project area and enhance collaboration across all stakeholders.

We identified six key stakeholder integration mechanisms, two in each category. The key contractual mechanisms were 1) participatory detailed urban planning and 2) integrative contracts. Involving key stakeholders in detailed urban planning enables more comprehensive plans that consider broader stakeholder requirements and claims and encourages collaboration. To enable this, project governance and contractual structure must support and aim for stakeholder involvement during the front end. The key organisational mechanisms were 3) inter-organisational organisation and 4) encouragement of co-creation. The project consortium must share a vision to work collaboratively toward common goals. In addition, distinct opportunities for co-creation should be enabled, whether through project consortium-wide co-creation workshops or other means. Key technological mechanisms should 5) enable transparent and frictionless inter-organisational communication and information sharing and 6) leverage available technologies in participatory urban planning and stakeholder interaction.

Due to the number and variability of stakeholders involved, stakeholders may lack prior collaboration experiences, invoking uncertainty and inefficiencies in the project environment. As the number of integration mechanisms and efforts increase, the key challenge is the comprehensive management of stakeholder integration. Without coordination and ownership of the integration, the collaboration landscape becomes scattered as numerous means to foster integration are implemented. Furthermore, simply adding integration mechanisms does not equal a high degree of collaboration—they need to be adequately implemented by all stakeholders and be accordingly utilised to provide value. Thus, the key challenges in stakeholder integration can be summarised as 1) ambiguity whether the Urban Development Project is approached as a process or project, 2) holistic management and ownership of stakeholder integration and 3) efficient, objective- and context-sensitive utilisation of implemented integration mechanisms.

Managing stakeholder integration in urban development projects

Certain preconditions are required to effectively manage integration in urban development projects and overcome the identified integration challenges. First, whether there is a planning process or project at hand should be clarified. Urban development projects should naturally be conceived as projects, as a more intentional managerial grasp enables achieving the objectives more efficiently than a more loosely coupled process. From a project management perspective, clear project initiation and termination should be defined.

Second, adaptation of the stakeholder approach is the prerequisite for holistic management of urban development projects. Project stakeholders must first be identified to understand the stakeholder landscape and project environment. From an efficient project stakeholder management perspective, we suggest a potential further development of the Participation and Assessment Scheme practice, which is mandatory at the start of urban planning processes in Finland. More detailed stakeholder analysis and prioritisation support identifying the

stakeholders with the utmost influence over the project, enhancing resource allocation and the project's executability.

The project front-end begins when the idea for a project is presented and ends when the final decision to execute the project is made. However, multiple urban planning processes precede an urban development project, and the project start necessitates a formal decision. The front end is the critical stage for laying the foundation for project success, as opportunities to influence project outcomes are paramount. Additionally, this is the phase when stakeholder integration should begin or be reassessed. Key objectives during the front-end include defining the main goals, requirements, use-value, and constraints of the project and developing the strategies to attain these goals. A project consortium with the key partners enabling the project needs to be established. The selection of the key partners can be done in multiple ways. The project background and context, set objectives, necessary resources, and required competencies influence the selection and formation of the core project team. In addition, the need for updates may emerge during the participatory planning process.

In line with these findings, we conceive and describe three dimensions of managing objective-oriented integration in urban development projects: 1) collaborative project environment to enable inter-organisational collaboration, 2) project-specific collaborative activities that jointly create additional value, and 3) stakeholder integration planning and governance to manage the interplay between enabling the collaboration and implementation of value creation activities. These dimensions emerge in the project front-end and evolve as the project progresses.

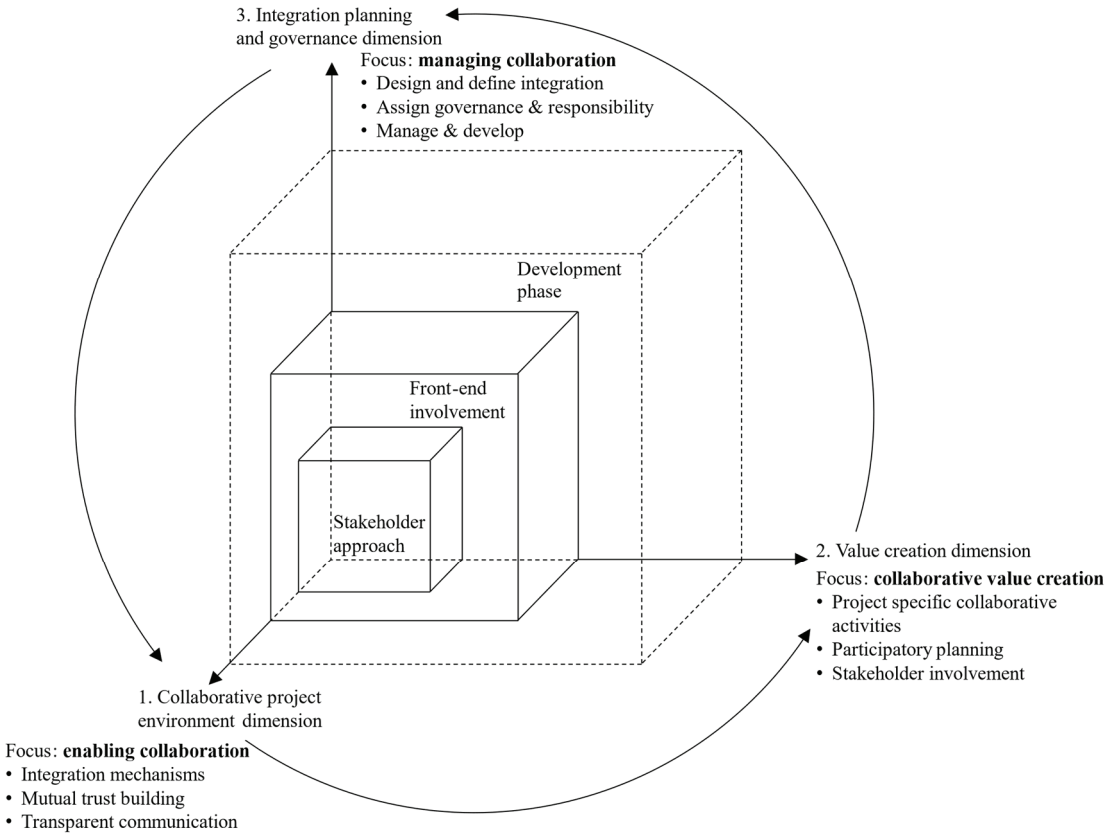

Figure 2. Three dimensions of stakeholder integration in urban development projects.

First dimension: collaborative project environment

Urban development projects are complex undertakings requiring broad planning and implementation expertise. To fully exploit the large array of actors and their competencies, a

collaborative project environment must be established. Stakeholder integration aims to unite all key project stakeholders to work together toward common project goals. For common project goals to be attainable, project members' objectives and motives must be aligned. Project status, shared vision, mutual trust, and transparent communication are key building blocks forming a collaborative project environment.

Interpersonal relations play a crucial part in enabling transparent and efficient collaboration. Inter-organisational project settings summon together a diverse set of actors with various methods of operation, challenging cooperation. Depending on the degree of previous collaboration between the project parties, efforts should be made to form a collaborative atmosphere. Key project members should get acquainted early in the initial stages, whether it is through workshops, meetings, or other activities. Mutual trust fosters open communication and is vital for successful collaborative efforts. Regular interaction and meetings act as a backbone for building lasting mutual trust and fostering collaboration. In addition, setting and clearly articulating common project objectives serves to promote the best-for-the-project mindset across the project organisation.

Contractual, organisational, and technological integration mechanisms can be utilised to foster the collaboration capabilities of the project organisation. The selection of mechanisms should consider and cater to project-specific requirements, that is, in the context of urban development projects, (1) the macro-level urban planning approaches and objectives, (2) the variety and types of stakeholders involved, (3) necessary viewpoints of assessment, and (4) the degree of integration required. In addition, various types of mechanisms are needed to attain comprehensive collaboration. Together, the mechanisms should enable integration in the first place, enhance integration as the project progresses, and consider internal and external stakeholders.

Second dimension: value creation

Stakeholder integration is not the goal but the means to achieve better value co-creation. In tandem with integrating and creating a collaborative atmosphere, project-specific means and methods that derive results and value must be defined and implemented. These project-specific means and methods characterise the degree of stakeholder integration and collaboration required in the project. In urban development projects, key collaborative value-adding activities include consideration of the nature of the planning case at hand, thorough stakeholder analysis for the Participation and Assessment Scheme, participatory detailed urban planning, public-private partnerships, and involvement of citizens in the co-creation of solutions.

The Land Use and Building Act aims to 'ensure that everyone has the right to participate in the preparation process that planning is high quality and interactive that expertise is comprehensive and that there is the open provision of information on matters being processed'. However, detailed planning was carried out before the construction project as a separate process. Public-private-people partnerships enable a more holistic approach, where detailed implementation requirements and project objectives can be considered during the planning process.

Urban development projects aim to cater to multiple urban functions according to set objectives, but in the end, success is defined by its users and residents. To better cater to their demands, involvement in the planning and design processes is essential. Recent approaches leverage the use of diverse technological platforms for citizen engagement. Interaction should be a regular flow of information and ideas between developers and end-users. The Kalasatama project had identified four levels of residents involved: bystanders, who are passive but interested in the progression; informants, who are eager to provide information via polls and other means; testers, who eagerly partake in pilot programs; and co-developers, who offer their own expertise

and participate in the collaborative development. Extensive involvement should offer opportunities for involvement for all levels of interested residents and users.

Third dimension: Integration planning and governance

Stakeholder integration requires coordination and management to become successful. Rather than simply adding numerous mechanisms to increase integration, a more holistic approach seems superior. Individual mechanisms or activities, while valuable building blocks, are not the essence of integration—the whole sum and combination of them is. An integration strategy must be devised to succeed in forming a collaborative project environment with the aim of value-oriented collaboration. Aspects to consider include effective integration mechanisms, how to implement and utilise the chosen mechanisms effectively, continuity of collaboration, and ownership of integration. Project goals and key value creation activities steer the formulation of an integration plan, and the strategy must focus on supporting these goals and strive toward value creation.

Integration mechanisms need to be designed to respond to the collaborative needs of the project. The selected mechanisms should complement each other and form a comprehensive integration that extends through project phases and key operational functions. Large projects implemented over many years tend to encounter organisational changes as stakeholders change for numerous reasons. The continuation of collaboration must be prepared for and ensured over these transitional periods. Integration implementation should be planned, clearly articulated, and continuously developed during the project to utilise premeditated mechanisms and actions effectively. As such, the process and ownership of integration should be defined to ensure the implementation and utilisation of set actions. Without ownership, the integration efforts remain fragmented and frail.

Discussion

Integrating key stakeholders and their capabilities is essential to succeed in complex project deliveries (Aapaoja et al., 2013; Baiden et al., 2006). The project organisation must work towards common objectives and combine competencies to generate the best possible solutions (Hietajärvi et al., 2017). However, the sheer number of stakeholders, their various backgrounds, and their varied positions toward the project make achieving integration challenging (Aapaoja & Haapasalo, 2014; Rankinen et al., 2022). Our findings corroborate prior research on the emphasis on front-end involvement to achieve a collaborative project environment (e.g. Aapaoja et al., 2013; Lahdenperä, 2012). In addition to the integration initiation in the front end, ongoing and continuous integration and a project environment that enables and allows it are necessary for successful integration that supports project-specific requirements and objectives.

While selecting feasible mechanisms is critical for integration, the strategic approach to integration efforts is significant. Integration mechanisms are cogs in a larger machine, and a holistic approach is needed to achieve comprehensive stakeholder integration. The set of mechanisms should complement each other and aim to support value-creating activities, and management of integration is crucial to ensure better utilisation of selected mechanisms. To start with, it should be clarified whether the case at hand is an urban planning process or an urban development project and which type of partnerships, public-private relations, and collaborations match the specific project context (Diamond & Liddle, 2005).

Theoretical Contributions and Managerial Implications

While project management scholars have focused on the concepts of collaboration, integration, and early involvement, the area of scope has remained mainly split between construction projects and collaborative urban planning. This study contributes by exploring and integrating these concepts and approaches to urban development projects at the intersection of property development, place-making, and urban planning. Moreover, our findings emphasise the holistic nature of managing stakeholder integration in these complex projects.

This study contributes to the stakeholder integration literature in three ways. First, by identifying the key stakeholder integration mechanisms, the study contributes to stakeholder management research in the context of urban development projects. Second, by illustrating the role of integration mechanisms as part of the larger integration process, the study carries forward the understanding of stakeholder integration and how temporary organisations achieve integration that enables inter-organisational collaboration. Third, by bridging integration, collaboration, and value creation, the study conceptualises the relation between these concepts, why an organisation should strive toward a collaborative state (value creation), how it is accomplished (collaboration), and what is required to achieve it (integration).

This study offers implications for managers of urban development projects seeking to improve project performance through stakeholder integration. The study describes and categorises various integration mechanisms that can be leveraged to enhance the planning of integration in future projects. Furthermore, the findings guide how to approach stakeholder integration, decide the extent of integration desired, and define pathways to achieve it. Finally, stakeholder management and an increased understanding of integration promote strategic and more intentional management of the project organisation and its stakeholders.

Limitations and Future Studies

This research has a few limitations. First and foremost, project business and urban development contexts often include context-dependent characteristics. Thus, describing a fit-for-all model is a futile attempt. However, this was not our intention; the goal was to incorporate objective-oriented collaboration practices into the urban development context. Second, the case projects' positive predispositions toward collaborative approaches have the possibility to bias findings. However, we believe the results are reliable and, to a certain degree, extendable across other project contexts. Third, the conceptualised model has not yet been tested. Instead, it aims to expand understanding of value-driven inter-organisational collaboration. Future research opportunities include specifying the integration process in more detail, identifying the preferred mix of integration mechanisms for collaborative urban development projects, and further investigating the applicability of the three-dimensional framework.

Conclusions

This study explored stakeholder integration in three Finnish urban development projects. We identified six key integration mechanisms from the case projects:

(1) Participatory detailed urban planning

(2) Integrative contracts

(3) Inter-organisational organisation

(4) Encouragement of co-creation

(5) Transparent and frictionless inter-organisational communication and information sharing

(6) Leverage available technologies in participatory urban planning and stakeholder interaction

Furthermore, we concluded that the key challenges of integration were ambiguity about whether urban development projects should be approached as projects instead of processes, emphasis on holistic integration management and governance, and utilisation of objective-sensitive integration mechanisms. From these findings, we conceived three dimensions of integration that are needed for collaborative projects: the creation of a collaborative project environment to enable efficient inter-organisational collaboration, project-specific collaborative activities that aim for joint value creation, and integration planning and governance to manage the interplay between enabling collaboration and value co-creation.

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