zeppelin university

bridging
business culture politics

LEIZ CASE STUDY #2

Challenges of Optimising Large Project Management through Global Resource Allocation

Lukas Belser

Matthias Niedenführ

Jessica Geraldo Schwengber

LEIZ · Leadership Excellence Institute Zeppelin
Initiated and supported by the Karl Schlecht Foundation KSG

LEIZ CASE STUDY #2
Challenges of Optimising Large Project Management
through Global Resource Allocation

DOI: 10.48586/zu/01218
https://doi.org/10.48586/zu/01218

Lukas Belser MA
ORCID-ID: 0009-0006-6586-491X

Dr. Matthias Niedenführ
ORCID-ID: 0000-0001-8998-0487

Dr. Jessica Geraldo Schwengber
ORCID-ID: 0009-0000-8468-8022

2024

LEIZ CASE STUDY SERIES

Relational Economics in Practice. An Introduction and User Guide

Josef Wieland
Julika Baumann Montecinos

The research program of relational economics constitutes the core of the Leadership Excellence Institute Zeppelin | LEIZ. Building on the publications of the Springer series "Relational Economics and Organization Governance" and the annual conferences of the emerging relational economic community, a theory is developing and establishing itself that represents a paradigm shift in the field of economics: the unit of analysis is no longer the actor or the market, but the relational transaction in its complex, polyvalent, uncertain, context- and time-dependent constitution. The aim behind this is to come closer to an understanding of the real conditions and consequences of economic action. For this reason, and in view of the fact that the corresponding conceptual description tools are now available, it seems highly plausible and expedient to focus even more on examples of application. If relational economics has the declared aim of depicting economic realities as precisely as possible, then such an undertaking of practical application should not only be productive in terms of concrete recommendations for decisions, but should also, in turn, further confirm the relevance of the theoretical concept.

The series of case studies presented here aims to offer nothing more and nothing less: We invite students, practitioners and colleagues to join us in trying out what relational economics has to offer in its application to real case studies. The analytical tools available for this purpose are briefly presented below in order to provide our readers with a kind of instruction manual without implying that real-world complexity can be dealt with in a one-size-fits-all manner. Rather, the analytical steps proposed here are intended to help describe a relational transaction as a basis for then working out more context-and time-specific options for action. This is carried out using the stakeholder model as the basic analytical structure, which is complemented in the respective cases by further case-specific methods derived from the toolbox of relational economics.

The attitude of a thorough and competent detective is required if one really wants to capture and describe a relational transaction appropriately: identifying and analysing the stakeholders involved, their resources and interests, and above all their mutual interaction, which, in turn, changes them, play a central role before further theoretical building blocks of relational economics can be applied. Accordingly, this analysis step also forms the common denominator with which the analysis of all the case studies collected here finds its starting point. For this reason, the stakeholder model is placed in the foreground in this user guide and is now briefly explained - other models are then introduced in the individual case studies and discussed in the application of these cases.

Stakeholder Model of Relational Decision Making

The theory of relational economics defines a firm as a nexus of stakeholder interests and invested stakeholder resources and corporate action via relational transactions that combine, in a cooperative and productive manner, the interests and resources of the stakeholders involved. The fact that, in particular, this takes place across cultural and sectoral boundaries is emphasised here and is related to the claim to take the real complexity and uncertainty of economic activity into account – thinking, for example, of global value creation networks or of the requirements from the ESG discussion.

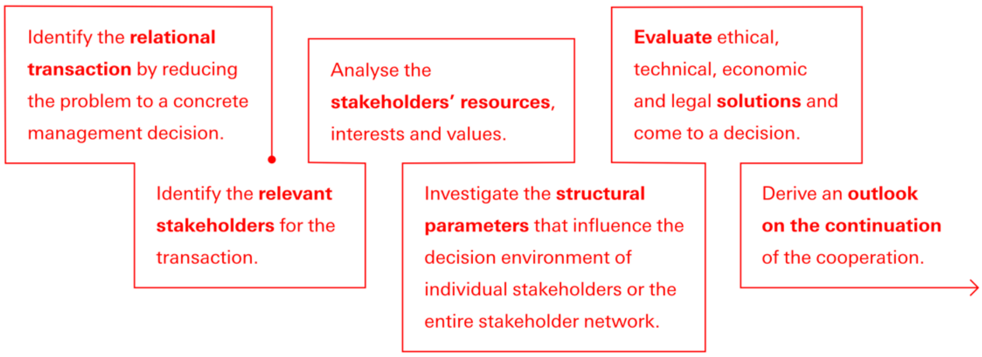
In order to derive a management decision in a specific constellation – for example, in the situations depicted in the LEIZ case studies – the stakeholder model provides the basic framework (Wieland 2020: 97ff.) and is presented here in a condensed form for the given purpose. The application of this model reveals the time- and context-specific microstructures of the relational processes and structures. It comprises six steps:

1. **Reducing the problem to a concrete management decision**. This concrete management decision ideally is a clearly narrowed down yes/no/alternative decision. This decision is the relational transaction that is to be analysed in the subsequent steps.
2. **Identifying the relevant stakeholders with reference to the transaction**. This includes the identification and prioritisation of the involved individual or collective stakeholders. Depending on the transaction, the stakeholders can be, for example, employees, management, customers, suppliers, investors, competitors, NGOs, political institutions or the public.
3. **Analysing the respective stakeholder resources, interests and values**. This entails a thorough look at the polyvalent constitution and motivation of each stakeholder. Such resources and interests could be, for example, economic, political, moral or professional, and the values can be, for example, performance values, communication values, cooperation values or moral values, that need to be combined and balanced.
4. **Investigating the problem along the structure of the decision environment**. This requires checking the relational transaction in-depth via the following eight structural parameters (Wieland 2020: 99):
    - I. Decision-making stress (for example, due to political or media pressure)
    - II. Intrapersonal values conflicts (for example, conflicting values arising from role-based expectations)
    - III. Inter-organisational values conflicts (for example, ideals held by the collective actors that are non-negotiable for them)
    - IV. Intercultural values conflicts (for example, differences in the moral doctrines of different groups)
    - V. Information deficits (for example, regarding the scope and consequences of an assigned task)
    - VI. Communication deficits (for example, resulting from the type of communication between the network partners)
    - VII. Responsibility diffusion (for example, who is responsible for creating and solving a given problem and on what grounds)
    - VIII. Rules deficits (for example, resulting from the lack of private or state regulation, or from its unenforceability).

5. **Evaluating ethical, technical, economic and legal solutions and reaching a decision**. In most cases, this decision combines ethical, technical, economic and legal approaches by evaluating the transaction-specific advantages and disadvantages of the available decision logics and considering their interdependency.
6. **Deriving an outlook concerning the continuation of the cooperation.** The question here is what new commonalities have been formed and to what extent the stakeholders involved have changed as a result of the transaction (Baumann Montecinos 2022).

FIGURE 0

An outline of what such an analysis could look like in general terms



Source: own illustration.

Thus, the foundations have been laid for working on the LEIZ case studies. We will be delighted if this material is used to promote learning and exploration of relational economics, particularly in its strength of practical application. Feedback from and exchanges between lecturers would be more than welcome.

Literature

Baumann Montecinos, J. (2022). Transcultural Cooperation in Global Networks. A Contribution to the Research Program of Relational Economics. In: L. Biggiero et al. (eds.). The Relational View of Economics (pp. 193-212). Springer.

Wieland, J. (2020). Relational Economics. A Political Economy. Springer.

LEIZ CASE STUDY #2

Challenges of Optimising Large Project Management through Global Resource Allocation

Lukas Belser
Matthias Niedenführ
Jessica Schwengber

Introduction

In project management, managing globally distributed resources poses several challenges. This case study highlights obstacles encountered when attempting to establish a consistent customer experience across different geographical locations. These challenges involve gaining approval from local decision-makers, selecting suitable employees for different work packages, and dealing with the intricate communication challenges arising from cultural differences in communication preferences and collaboration tools.

Case Description

Thomas Theurer is Chief Operating Officer (COO) at The Plant & Machine Engineering Company. As COO, he is responsible for overseeing all industry projects executed by the company and he works closely with the CEO. The management team believes the company needs to combine resources from different subsidiaries to tackle labour shortages and meet the demands of fluctuating project sizes. To achieve this goal, Thomas Theurer is responsible for defining the issues, finding solutions, and devising an execution approach.

The Plant & Machine Engineering Company is a German-based company that specialises in the engineering of plants and machines. It was originally founded in a small town in southern Germany in 1900. Despite facing several crises, the company has experienced constant growth over the years. In addition to its market success, the company has also achieved rapid growth thanks to M&A activities, starting in the 1990s. The Plant & Machine Engineering Company has acquired 11 small-sized companies and one medium-sized company in Germany and abroad, which has expanded its product portfolio, customer base, and global presence. The company initially established sales offices in foreign markets, which later sometimes developed into more mature locations with additional capacities besides sales, such as engineering and planning.

The Plant & Machine Engineering Company has a workforce of approximately 1,700 employees and generates an annual turnover of around 300-400 million euros. The company's annual earnings before taxes (EBT) vary between 2 and 7 million euros, depending largely on the volume of project orders. The Plant & Machine Engineering Company boasts 13 subsidiaries spread across four continents, with each subsidiary having 1-5 locations, comprising offices and production sites. Two of the subsidiaries are joint ventures, with the company owning 40% of the shares in one and 51% in the other. The remaining shares in these joint ventures are owned by a state-owned and family-run company, and a local family, respectively. The other 11 subsidiaries are entirely owned by The Plant & Machine Engineering Company.

The Plant & Machine Engineering Company is active in six different industry sectors, namely, polyolefin plants, rubber plants, performance materials plants, food processing plants, recycling plants, and battery mass production plants. The company's value proposition is based on three dimensions, namely, projects, products, and services. The "projects" dimension describes the company's engineering projects that are executed on a global scale. The company engineers complete plants and oversees the construction process of these plants on-site. Each plant is individually engineered to meet customer requirements. Although the plants in one industry sector may be partly similar, there are significant differences in terms of location, size, local restrictions, individual requirements, and other factors. This makes every project unique. In addition to this, the Plant & Machine Engineering Company has a product portfolio that includes different machines, mechanical applications, and a few minor software applications, which are mostly sold alongside the entire plant construction project. The third dimension, "services," includes selling spare parts, as well as the repair and modernisation of existing plants. The "projects" dimension is responsible for 90% of the company's turnover, while "products" and "services" contribute roughly 5% each.

In the dynamic landscape of large-scale project management, effective resource orchestration is of paramount importance. These projects are typically complex and large in scale and are overseen by a project manager. Thomas Theurer is responsible for supervising all principal project managers. Each project manager plays a crucial role in assigning work packages to specialised departments, ensuring that teams with the necessary expertise handle each facet of the project. The departments involved in this process include engineering, plant planning, design, purchasing, production, automation and software, and site management. Each department plays a unique yet interconnected role in the project's lifecycle. The project managers' responsibilities extend beyond mere delegation. They act as a bridge between these departments, ensuring smooth coordination, addressing any inter-departmental and intra-departmental issues, and maintaining a consistent project timeline. Their strategic decision-making is influenced by the project's scope, budgetary constraints, and specific technical requirements.

The engineering sector is currently facing a significant problem of a shortage of skilled labour, which is especially worrying in Germany owing to the country's rapidly changing demographics. To address this issue, the Plant & Machine Engineering Company has decided to leverage its global network. This strategy will not only help to mitigate talent scarcity but will also bring in diverse perspectives and expertise, leading to better project outcomes. By tapping into its expansive reach across various regions, the company can access a pool of specialised skills, thereby facilitating a more holistic approach to project execution. For example, the company is planning to utilise its subsidiary in India to perform tasks related to plant engineering. This decision was made after evaluating the subsidiary's capabilities and the region's rich pool of engineering talent. India is known for its strong educational emphasis on engineering, which has produced a wealth of qualified specialists in the relevant fields. This strategic move should help address the skills gap and capitalise on cost efficiencies and time zone advantages offered by the Indian subsidiary. On the one hand, Indian engineers based in India are to become part of a German-led engineering department based in Germany and, on the other hand, work on work packages in Indian-led engineering departments located in India.

However, this approach comes with some challenges. Cross-border collaboration introduces complexities such as cultural differences, communication barriers, and coordination across different time zones. These challenges necessitate the use of robust communication channels, cultural sensitivity training, and advanced project management tools to ensure a smooth workflow.

The Plant & Machine Engineering Company has established intra-organizational project networks to enable global project handling using local resources in headquarters and subsidiaries. A new web-based collaboration tool has been introduced to facilitate team collaboration on documents. Teams can create projects and invite members by email. During meetings, tasks are assigned to specific team members and tracked through the tool, with the person responsible reporting back when the task is completed. The tool also allows for creating meeting minutes, which are automatically generated into a document that follows the company's layout. Changes to documents are approved and versioned using a workflow. Only the parts of a document an employee is working on are locked during editing. The tool requires a license, and costs are incurred for each license.

Challenges

In a global value network, one of the main challenges management faces is involving local decision-makers in the subsidiaries to ensure a seamless customer experience. It is essential to assure them that their resources, including their employees' time, are being utilised without conflicting with local conventions or the interests of the subsidiary leaders. Further communication challenges remain once full support for the new integration strategy is obtained through honest stakeholder dialogue with local decision-makers.

It is crucial to clearly assign suitable employees to tasks within the intra-organizational project network and communicate transparently regarding work progress, ambiguities, and follow-up. A qualification matrix is used to ensure this. The project involves working on approximately 2,500 documents simultaneously, requiring cross-location collaboration with other countries or locations.

Regular project meetings are conducted in Germany or at a single location via MS Teams or on-site. Communication channels include email, phone, various messenger services (WeChat, Line, WhatsApp), and MS Teams' chat function. However, not all subsidiaries have access to these tools, and some are preferred in certain regions (for instance, WeChat has replaced emails in China).

Language barriers, differences in non-verbal communication, and time differences further complicate smooth communication. Communication between work teams is not uniform,

and cultural factors sometimes require detailed and precise communication of tasks and content. In addition, web-based working with the tool on a license basis is unfamiliar to employees and is sometimes not accepted. Here, conflicting communication strategies between the German headquarters and the managers and engineers in India add a level of cultural complexity that may obfuscate hidden reservations and objections that remain unexpressed.

Different computer-assisted design (CAD) tools are available on the market for the development of plants. When it comes to designing the piping for smaller plants, such as a food plant in France, the Plant & Machine Engineering Company designs the entire plant. However, for larger projects, such as a polyolefin plant in China, the company only designs a part of the plant. It has to deal with constraints imposed by numerous interfaces with other contractors responsible for other parts of the project. In such cases, using unified tools for all engineers within the network would result in significant costs.

Lastly, it is worth noting that there is no available comparison, either from the internal experience of the Plant & Machine Engineering Company or from existing management literature, to indicate whether the creation of an international engineering pool – as envisioned by Mr Theuer and the corporate leadership – would be economically viable in terms of cost and benefit.

Questions

1. What are the key features that should be considered to better manage intra-organizational project networks in the future? For each feature, develop or adjust concepts that can be applied. In doing so, please consider the organisation's business model, its operations, and the various markets it operates in.
2. What are the potential causes for the challenges faced by the organisation? Adopt a problem-solving approach to identify these issues in terms of communication and cooperation within the organisation. How can the organisation improve its intra-organizational network (i.e., governance structure) to overcome these obstacles to make it more resilient?
3. What specific cultural challenges, such as language, work culture, and communicative practices, does the organisation face in communicating between its headquarters and engineers from subsidiaries in other countries? Please suggest practical solutions, such as communication formats and team-working methods, that can address these issues while considering the corresponding costs and benefits.

Discussion

The challenges faced by the organisation can be attributed to several potential causes, including the need for more effective communication and cooperation within the organisation. The dispersed nature of the organisation across different geographical locations and the resulting cultural differences create challenges in communication preferences and tools. The lack of a uniform approach to resource allocation and decision-making processes across the subsidiaries also contributes to the challenges faced by the organisation.

When discussing the questions mentioned above, it is helpful to consider the different governance structures that a company can have. These structures include “market”, “hierarchy”, and “network”. Powell (1990) provides an informative overview of these governance structures, highlighting their respective key features such as normative basis, means of communication, methods of conflict resolution, degree of flexibility, amount of commitment, actor preferences, and the mixing of governance structure forms:

FIGURE 1

Comparison of Governance Structures

	Forms		
Key features	**Market**	**Hierarchy**	**Network**
Normative basis	Contract – property rights	Employment relationship	Complementary strengths
Means of communication	Prices	Routines	Relational
Methods of conflict resolution	Haggling – resort to courts for enforcement	Administrative fiat-supervision	Norm of reciprocity – reputational concerns
Degree of flexibility	High	Low	Medium
Amount of commitment among the parties	Low	Medium to high	Medium to high
Tone or climate	Precision and/or suspicion	Formal, bureaucratic	Open-ended, mutual benefits
Actor preferences or choices	Independent	Dependent	Interdependent
Mixing of forms	Repeat transactions (Geertz 1978) Contracts as hierarchical documents (Stinchcombe 1985)	Informal organization (Dalton 1957) Market-like features: profit centers, transfer pricing (Eccles 1985)	Status hierarchies Multiple partners Formal rules

Source: Powell 1990: 300.

To manage the network effectively, a mix of governance structures should be applied, taking into account the various contractual relationships between the company and its subsidiaries. The company has a long history, having been founded in the early 1900s. While this can be an advantage in terms of having a strategic long-term view and the ability to overcome challenges, it can also be a disadvantage when making fundamental changes within the organisation. There are path dependencies in business, such as customer base, development knowledge, leadership styles, and local embeddedness, which can take time to overcome.

One reason for a company’s success and current market share may be its rapid growth through mergers and acquisitions. However, this rapid growth can also lead to challenges during the post-merger integration process. These challenges may include misaligned product portfolios, differing product development standards, varying corporate cultures, and a lack of knowledge exchange.

The case study sheds light on the challenges faced due to a highly complex intra- and inter-organizational environment. The issues might have arisen due to the organisation’s growth without adapting its corporate governance and structure. To improve its intra-organizational network and overcome these obstacles, the organisation may implement several measures. It can establish a more transparent governance structure that defines roles and responsibilities across the different subsidiaries and ensures that they are aligned with the overall goals of the organisation. For instance, implementing a web-based collaboration tool without making it available to everyone is an example of an inconsistent governance structure following expansion. The language and communication barriers were not fully considered during the expansion process, leading to misunderstandings and communication gaps, hampering collaboration. The organisation could establish clear communication channels and protocols that provide a uniform approach to communication across different geographical locations as far as possible.

Cultural sensitivity, transcultural learning, leadership, and governance are essential to achieving success in an organisation, but the case study organisation currently still lacks these characteristics to a degree. The acceptance of the communication tool mentioned above poses problems, which means that the organisation or its leaders may need to be more convincing to the leaders and managers in the subsidiaries in terms of its applicability. This is also reflected in the uncertainty regarding the cost/benefit calculation of the integration strategy, which represents a certain lack of strategic vision at the organisational level.

Transcultural leadership focuses on the commonalities that unite people despite their diversity rather than neglecting their differences. By doing so, employees at all levels feel engaged and connected to the common ground, which can be a specific organisational project. This sense of belonging (to a project, to a team, to the organisation) is based on theoretical concepts such as the contact hypothesis and the theory of shared intentionality, and in practice, it requires interventions aimed at promoting contact and communication, and – as secondary effects – psychological safety, trust, and social capital.

Specifically, communication of the organisation's strategies and the importance of each subsidiary/team in achieving the strategy through the implementation of each project should be clearly conveyed at all levels of the organisation and in all subsidiaries.

The organisation could create a management network that promotes interaction and learning among different subdivisions and departments. This would help to address the challenges and opportunities that arise. Additionally, the organisational culture could be changed to become more inclusive, treating all sub-departments as relevant rather than just cheap labour. By becoming known as a good employer, the company could attract new talent and begin to address the skills shortage. This effectively means that the organisation adopts a relational view of the firm that emphasises the importance of building strong and long-term relationships with stakeholders, including customers, suppliers, and employees. This approach can help the organisation to build trust and enhance cooperation among different subsidiaries, leading to a more resilient organisational network.

The organisation can also invest in employee training and development to ensure employees have the necessary skills and competencies to work in a global environment. For instance, long-term language training could also help to break down language barriers, while cultural training and – where possible – international assignments could promote contact with new cultures. This could be a valuable starting point for establishing personal connections between teams, fostering trust, and improving communication and leadership skills across different cultures in both headquarters and subsidiaries.

Utilising technology and digital tools may help facilitate communication and collaboration across different geographical locations, thereby enabling employees to work together more efficiently. Hence, the creation of a standardised communication tool that is available to all subsidiaries could be considered as a means of improving communication. While the introduction of web-based communication was an essential initial step in this direction, a more consistent roll-out could have enhanced its effectiveness.

In summary, the organisation can improve its intra-organisational network and overcome the challenges it faces by implementing a range of measures, including establishing a more transparent governance structure, defining communication channels and protocols, investing in transcultural employee training and development, adopting a relational view of the firm, and leveraging technology and digital tools.

Literature

Allport, G. W. (1954). The Nature of Prejudice. Addison-Wesley.

Baumann Montecinos, J., Grünfelder, T., & Wieland, J. (2023) (eds.). A Relational View on Cultural Complexity. Springer.

Bennet, M. (2013). Basic Concepts of Intercultural Communication. Intercultural Press.

Dalton, M. (1957). Men who manage. New York: Wiley.

Dyer, J. H., & Singh, H. (1998). The Relational View: Cooperative Strategy and Sources of Interorganizational Competitive Advantage. In: AMR 23 (4), 660–679.

Eccles, R. (1985). The transfer pricing problem: A theory for practice. Lexington, MA: Lexington Books.

Foss, N. J., & Pedersen, T. (2002). Transferring knowledge in MNCs: The role of sources of subsidiary knowledge and organizational context. In: J International Management (8), 49–67.

Geertz. C. (1978). The bazaar economy: Information and search in peasant marketing. American Economic Review, 68(2), 28-32.

Gibson, R. (2021). Bridge the Culture Gaps. Nicolas Brealy.

Gulati, R., Nohria, N., & Zaheer, A. (2000). Strategic Networks. In: Strategic Management Journal 21 (3), 203–215.

Hofstede, G. (2001). Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations. Sage.

Nahapiet, J., & Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the Organizational Advantage. In: Academy of Management Journal 23 (2), 242–266.

Niedenführ, M. (2021). Humanistic Management with a Confucian Twist – The Case of FOTILE. In: E. Von Kimakowitz, C. Diercksmeier, H. Schirovsky, & C. Largacha-Martínez (eds.). Humanistic Management in Practice – Volume II (pp. 217-238). Palgrave Macmillan.

Poppo, L., Zhou, K. Z., & Zenger, T. R. (2008). Examining the Conditional Limits of Relational Governance: Specialized Assets, Performance Ambiguity, and Long-Standing Ties. In: J Management Studies 45 (7), 1195–1216.

Powell, W. W. (1990). Neither Market nor Hierarchy: Network forms of organization. In: Research in Organizational Behavior 12, 295–336.

Schwengber, J. (2024). Organizational Learning as Relational Governance. Springer.

Stinchcombe, A. (1985). Contracts as hierarchical documents. In: A. Stinchcombe & C. Heimer, Organization theory and project management (pp. 121–171). Oslo: Norwegian University Press.

Tomasello, M. (2009). Why We Cooperate. MIT Press.

Wenger, E. (1998). Communities of Practice. Learning, Meaning and Identity. Cambridge University Press.

Wieland, J. (2020). Relational Economics. A Political Economy. Springer.

Keywords

Global project management, intra-organisational networks, network governance, organisational governance, relational view of the firm, transcultural learning, transcultural management, inclusive communication tools.

Picture Credits

Figure 0: Josef Wieland, Julika Baumann Montecinos
Design: Zeppelin University, Philipp N. Hertel, Peter Schmid

Figure 1: Powell 1990: 300
Design: Zeppelin University, Philipp N. Hertel, Peter Schmid

Edit & Setting

Dr. Matthias Niedenführ

Cite as

Belser, L., Niedenführ, M., Geraldo Schwengber, J. (2024). Challenges of Optimising Large Project Management through Global Resource Allocation, LEIZ Case Study 2, https://doi.org/10.48586/zu/01218

Imprint

Zeppelin Universität gemeinnützige GmbH
Am Seemooser Horn 20
88045 Friedrichshafen

Licence

Explore all
our case studies
now.

zu.de/cases