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UNRAVELLING THE WORK OF KNOWLEDGE PROFESSIONALS: A NEO-INSTITUTIONAL EXPLORATION OF KNOWLEDGE TRANSFER IN THE CONSTRUCTION INDUSTRY

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It is well recognised that knowledge transfer in the construction industry, characterised by its intricate project organising, poses significant challenges. This has attracted plentiful attention by construction scholars and studied in such volumes that it now qualifies as a ‘traditional research question’. To honour this year’s conference theme, this paper revisits this traditional question with a contemporary focus. We report from an empirical case of a large Scandinavian construction company’s recent attempts to address more efficient knowledge transfer through a dedicated expert unit. Few prior studies address the activities of actors affected by multiple competing professional logics. Drawing on 16 interviews, we zoom in on this units’ work as it unfolds at the nexus between organisation, projects, and clients and view it through a neo-institutional lens. The paper concludes that a key for more efficient knowledge transfer to manifest is the establishment of a new professional logic. This contemporary focus reminds us that knowledge transfer is not merely an organising problem but enmeshed in multiple dimensions of professional work including legitimacy, identity, and knowledge.

Keywords: Neo-Institutionalism, professional logic, knowledge transfer, strategic change

INTRODUCTION

The construction industry has often been described as the “epitome of a project-based industry” (e.g., Dainty *et al.*, 2007) where temporary organisations and complex supply networks are formed for each new building project. Much interest has been paid to how these specific conditions impedes knowledge transfer and learning (e.g., Drejer and Vinding 2006; Styhre 2009; Forcada *et al.*, 2013) and the lack of strategic exploitation of knowledge generated in construction projects (Eriksson 2013) is considered as substantial untapped value for the various actors operating in the industry (Tan *et al.*, 2015). Therefore, the interest in knowledge management in construction has blossomed during the past two decades (Yu and Yang 2018), and construction scholars have explored it from a variety of perspectives, including ICT-uses, processes, constructability, organisational design, and team-level collaboration (Arriagada and Alarcón 2014). At micro-levels, the structural characteristic of construction is subjecting knowledge sharing to complex informal affairs unfolding as interaction between the multiple different specialised professions that partake in

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building projects (Styhre *et al.*, 2004). The dominant perspectives are thus to explore how the various institutionalised professions better can share knowledge within and across professional boundaries (Styhre 2009; Karrbom Gustavsson and Gohary 2012). Summarising these perspectives the converging conclusion is thus that knowledge management in construction can be improved if current institutionalised professions can find ways for more efficient knowledge sharing practices (Arriagda and Alarcón 2014). However, exploring if knowledge management in a complex project context requires a fundamental shift in professional logic has not been given much attention. Therefore, the purpose of this paper is to revisit and explore "knowledge management" as a distinct professional role and logic to mediate more efficient knowledge sharing in construction. Following this, an institutional lens is used to explore an ongoing attempt to establish a dedicated knowledge sharing unit in a large construction company in Sweden. By zooming in on the ongoing tensions between various professional logics at play, we introduce and critically discuss the idea that "knowledge managers" need to be established as a distinct institutionalised profession before construction companies can strategically exploit all their untapped knowledge.

Theoretical Frame

Professional logics in construction: towards an institutional work perspective
Neo-institutional theory has been portrayed as one of the most prominent theoretical lenses for organisational studies (Alvesson and Spicer 2019), offering a nuanced understanding of the multi-layered complexity underlying all sorts of change and transformation phenomena (Chan 2018). Institutional logics are the underlying mechanisms that influence actions by affecting thought patterns, norms, values, and regulatory frameworks (Thornton and Ocasio 2008). Institutional logics can be viewed as the contextual structures that guide individuals on how things 'should be done' and thus influence how individuals, groups, and organisations view themselves, their values, assumptions, goals, and interests (*ibid*). During episodes of change, areas of friction between various institutional logics can surface. An institutional lens may therefore support more detailed insights of how change occurs and how it is resisted.

Institutional work is a subset within institutional theory that focuses on how agency is enacted through the purposive actions of individuals and organisations, variously seeking to create, maintain and disrupt the institutions which they are part of (Lawrence and Suddaby 2006). It should be stressed here that various organisational logics seldom are fully harmonised, especially during episodes of change, and that organisational actors thus neither fully rationalise their actions nor seamlessly follow the 'institutionalised scripts'. Rather, actors combine and generate new practices to satisfy multiple demands, and they do so in interaction with others (Binder 2007). Højgaard Christiansen and Lounsbury (2013) assert that the complex internal organisational dynamics of handling and integrating various institutional logics are not well understood.

In construction research, there has recently been an upsurge in studies applying an institutional work lens to explore the (strenuous) establishment of various new professional roles. In a recent study on sustainability professionals in construction, Gluch and Hellsvik (2023) elucidate the complexity at play when navigating multiple active institutional logics and conclude that the ability to adapt is essential for actors trying to establish legitimacy for new kinds of professional work. In the more technical domains, Bosch-Sitjsema *et al.* (2019) use an institutional work lens to zoom in on a "people perspective" of the professionalisation of BIM actors. They conclude

that BIM actors view their own role as requiring soft, interpersonal skills whereas others view them as a purely technical craft, and altogether highlighting the tensions enmeshed in the institutionalisation of increased digitalisation. The effects from the introduction of novel concepts related to employment requirements were studied by Troje and Gluch (2020). Their study concluded that roles and identities are shaped by altered practices stemming from the novel concepts. Further they found that effective diffusion was reliant upon a few engaged actors and that professionalisation was hindered by competing institutional logics. Svensson and Löwstedt's (2021) study on change in public facility management concluded that the ability to navigate complex institutional landscapes is a core skill for all professionals seeking to gain increased legitimacy in the construction industry. Altogether, these studies have highlighted how the diffusion of new roles and work practices in the construction industry can be understood as complex dynamics unfolding amongst multiple nested layers of institutional logics.

METHOD

This paper draws on data from an explorative case study focusing on "how" "knowledge workers" are seeking legitimacy for new types of professional work and "why" they are struggling (Eisenhardt 1989). A more open explorative approach was chosen to align with some of the key premises of an institutional work frame, most notable that institutional systems are not fixed entities, but varies across different professional groups (Thornton and Ocasio 2008). Considering the establishment of new professional roles and practices this study was designed to map out the most significant institutional logics at play from the perspective of these new knowledge professionals, rather the relying on any preconceived model.

The object for this case study is a single organisational unit (in this paper referred to as the 'Strategy Unit' (SU)) in a large construction firm (in this paper referred to as "Augusta"). Augusta has approximately 15.000 employees with an annual turnover of 60 billion SEK. The SU is positioned above projects and the operational departments, reporting to the business area management. For the last eight years this unit has supported Augusta in Sweden within one product segment. The segment is characterised by complex public client organisations and very large projects. The SU unit has no formal authority in projects and no responsibility for profit and loss.

The primary task of the SU is to support, build and transfer knowledge to and between projects. In 2016 the SU was assigned by the head of BA to operationalise and implement a new stakeholder focused strategy. The SU created three process-based concepts to integrate knowledge while still being flexible to cater for various project requirements. The concepts are value-based sales, stakeholder management during design and lastly how to handle the complex handover process. These concepts can be seen as boundary objects (Carlile 2004) with a function to bridge between and combine different knowledge bases. Bridging enables knowledge transfer and by combining, new knowledge can be created. For instance, the design concept bridges stakeholder needs and the knowledge of construction professionals including cost estimates for informed decision making.

This paper draws on the results from 16 semi-structured interviews. Initially, interviewees were selected primarily from within the formal organisational structure. However, the focus shifted toward identifying individuals who could provide the most informed perspectives. They held positions such as design-, project-, site-, department- and sales managers, all with a professional relationship to the SU. In

addition, interviews with managers for the SU and senior managers were conducted. Interviews were semi-structured, lasted for 90 minutes and were conducted both in-person and digitally. Two follow-up interviews were conducted with a duration of 60 minutes. Interviews started with questions about professional and educational background of the interviewee, overall experience from collaboration with the SU and with clients. The interviews continued with in depth questions about what knowledge and the specifics of knowledge in the segment are, about knowledge transfer and to end what challenges this dynamic. In the next section the results will be presented in structured in three main interactions between the SU and project professionals, senior managers in Augusta and with client representatives.

FINDINGS AND DISCUSSION

Interactions with Project Professionals

The formal role of the SU is to offer support and expert knowledge to project professionals such as design-, project-, and site managers. This knowledge is derived from practical experience and aggregated through a feedback loop between project operations and the unit. To offer support and expert knowledge, the unit is relying on access, openness, and collaboration with key project members in project operations. However, our data show that the SU unit face significant challenges. One clear pattern in the data is that their work was heavily skewed towards adopting to short-term project needs, rather than engaging in strategic work. As a manager of the SU expresses this: *She had to support projects by operational work, and this took away valuable time from the more strategic work.* It was clear that the members of the strategy unit felt compelled to downplay their commissioned role as “knowledge experts”, succumbing to act as an additional operational support for the benefits of the project managers. From the project managers’ perspective, this was only natural: *Well, in projects we put pride in knowing what is best for our project. Outsiders should adapt to our way of thinking.* Altogether, this is indicative of a major disconnect between the formal legitimacy that the role implied, and the more informal legitimacy enacted in daily practice. At the boundary between the formal and the more informal legitimacy friction occurred. However, this friction was only experienced on the side of the SU while for the project professionals, it was business as usual: *He participated (in the discussion) but without any decision power, he was just a source of knowledge if I may call him that.*

Therefore, the differentiation between formal and informal legitimacy within project organisations appears to be a valuable lens through which to comprehend the difficulties faced by ‘knowledge professionals’. Alternatively, this distinction sheds light on the reasons behind the sluggish progress of new organisational endeavours aimed at strategic knowledge utilisation. Moreover, another distinction emerges, as the strategy units seem to cater to a different set of stakeholders compared to project professionals: *To tender, we meet clients that tells us that when we (the SU) say that it is not a construction project, rather it should be seen as a business development project. Then some clients say, we usually look the other way around. We do not want any inclusion of stakeholders from operations.*

This emphasis on stakeholders could serve as an early indicator, highlighting the contrasting viewpoints regarding perspective on what a project constitutes. While project team members may regard their work as a straightforward construction endeavour, the SU perceives it as an initiative for organisational development. Rather than merely optimising within current project parameters, the unit embraces a life

cycle cost approach, aiming to provide greater societal value through exemplary execution and outcomes that surpass the initially defined project scope. A project scope that actors of the SU has had experience being able to expand.

Dynamics with Corporate Management Logic

The SU received directives from the higher-ups to spearhead a strategic overhaul through the development of concepts centred on customers and end-users. This responsibility was an addition to their existing duties of enriching projects with knowledge and providing operational support. However, senior management did not bestow any official power to the SU for the execution of this new task. The decision to adopt these concepts was left to the discretion of individual projects. The SU was inclined to prioritise end-users and strategic renewal, yet the senior management's interest in these areas was comparatively muted. A manager's remark on the senior management's level of interest reflects this sentiment: *Well, he is not extremely interested to learn our segment, he trusts that I and my group has the knowledge. On the other hand, he is interested in progress in customer dialogues and tender processes, and the current projects in our portfolio.* Senior management showed reluctance to invest either interest, time, or resources in what the SU saw as instrumental for the strategic renewal.

The tools that were collaboratively developed and tailored for the segment did not receive adequate financial support. Members of the SU expressed that strategic innovation is challenging without directives, resources, or formal authority. Periods of self-doubt and wavering motivation among SU members, which were partly attributed to the senior management's apparent disinterest and reluctance to commit resources and legitimacy to the SU. This self-doubt was particularly pronounced during difficult times, such as when experiencing a series of unsuccessful bids. One member shared her insights on this experience: *The thing was, we had just lost a very important tender. We had lost yet another tender and we were thinking for ourselves...do we have any raison d'être if we do not win the next tender? What do we have our SU for? We are clearly not winning... what do you guys bring to the tender? I had a giant lack of confidence, or how to express it, entering the next large tender. What should I say, what do you think? Clearly, my suggestions haven't been worth crap so far.* During such times, the SU unit's members seek greater recognition and backing from the upper management to affirm their worth to Augusta. While lost legitimacy from losing a tender might reflect on the SU's performance, loss of leadership does not. The decision by the top management on two occasions to reassign managers from the SU to line management roles has led to doubts among the SU members about their own significance. This is perceived by the unit members as a leadership disconnect that impacts their perceived legitimacy. In an organisation where margins are slim and stable performance is paramount, there's an inclination to prioritise short-term gains and provide operational support to projects. This focus is apparent throughout Augusta, with the Business Area Head explicitly expressing a strong preference for performance outcomes: *This is a document I always carry with me. It is a scorecard for operational performance and continuous improvements.* By prioritising performance in his communication, the Head of the Business Area subtly undermines the importance of strategic renewal. The SU regularly encounters situations that reveal the benefits of a focus on stakeholders, which could be the key to not only fulfilling project objectives but also contribute to a more efficient use of societal resources. Despite this, there seems to be a reluctance from senior management to embrace the unit's stakeholder-centric perspective. A senior manager

even expressed a degree of astonishment regarding the contributions the unit makes: *When her and her colleagues sits down and describes all this, then our clients get misty-eyed. They (clients) take notice on our ability to really understand their problem.*

The focus on short-term results and performance is not unique to Augusta. In fact, strategic planning is often overlooked in construction firms, as noted by Löwstedt *et al.* (2018), due to a lack of attention and insufficient management skills. Senior managers tend to regard projects merely as financial components of a broader portfolio. However, the strategic team sees these projects through a different lens, considering them as opportunities for client-driven change. This discrepancy in viewpoints, coupled with senior management's emphasis on performance and their disengagement from strategic innovation, poses a challenge for the strategic team's legitimacy. Lacking the necessary formal or informal authority to make decisions or to act, the strategic team finds itself caught in a web of conflicting professional logics. What informal or even formal legitimacy does the strategy carry, when senior management seem so reluctant to invest in it?

Client Representatives

The SU, Augusta's local department, and the client's group of representatives often hold their first meeting several years prior to the formal solicitation for bids. The nature and outcomes of these early dialogues shift with the varying experiences and focuses of those in attendance. Interviews portray these sessions as a delicate exercise for the SU, tasked with imparting its deep-seated expertise to clients who may possess divergent experiences. The educational and professional backgrounds of the project's delegates significantly influence the project's configuration. This dynamic was notably illustrated when a project's leadership was handed over: *It has been a long journey (for the project) before we enter and the client and their (new) representative that is from the HVAC industry tells us "But they are not mature, they are not ready for partnering, what can they add? We think you (Augusta) should do the design".*

Drawing on his expertise, the client's representative wields informal influence over decisions that are typically beyond his formal legitimacy. Such large and intricate projects are often executed using a collaborative delivery approach, where areas not covered by the contract are more prevalent. The SU members have observed that this informal authority can be leveraged to sway decisions within this model. This dynamic presents an opportunity for both clients and contractors to exert influence. Yet, in this project, the contractual framework was altered from the anticipated two-phase- to multiple contracts. This is assumed to alter the power balance and preconditions for collaboration: *In practice, they tendered for one contract for phase one, four contracts for phase two and four contracts for phase three, so in fact nine different contracts... with almost endless possibilities for them to cancel the deal. They have now arranged for them to have the opportunity to depart and not giving us the whole deal at an early stage. We are not supposed to just sit and feel super-confident.* This contractual structure increases the formal legitimacy of the client representative. Even though it is widely recognised that it is costly for a client to switch contractors mid-project, interviews suggest that Augusta's project professionals have adopted a more lenient attitude in the cooperative relationship with the Client.

While only interviewing employees of Augusta is limited, one finding from these interviews is that client representatives vary in their outlook. Some representatives

possess a more limited perspective on projects and show hesitance in involving stakeholders in the project’s progression, whereas others adopt a more holistic perspective, focusing on the project’s entire lifecycle. Locally rooted client representatives with longer operational experience tends to share the long-term perspective of the SU on the project. Being locally rooted makes the definition of a successful project something that is long term functional beyond project objectives.

	Project logic	Corporate management logic	Client representative logic	New professional logic
Formal legitimacy	Contract	Hierarchy	Contract	None
Informal legitimacy	Experience	Credibility	Experience	Value delivered
Immediate Stakeholder	Client	CEO	Politicians	Client stakeholders
Key Competence	Construction	General management	Construction/ Real estate	Construction and client operations
Project as a:	Construction project	Part of a portfolio	Construction/ Real estate project	Business development project

Table 1: An overview of the various professional logics that surfaced from the inter-professional interactions highlighted in the previous section

This research explores the influence of various professional and institutional logics on the activities of a group of knowledge professionals, trying to establish new kinds of work practices within a specialised unit (SU) in a large construction company. Although the original initiation of the SU was sanctioned by top-level management, our results show the substantial tensions that underly its ongoing attempts to integrate with Augusta's current operations. Viewing these tensions through an institutional work lens (e.g., Lawrence and Suddaby 2006) highlights new perspectives of knowledge transfer in construction. The results show that the SUs work is shaped not primarily by the formal assignment, but by socially mediated institutional logics (Thornton and Ocasio 2008) that govern the knowledge base and informal systems of practices and legitimacy (see Table 1, for an overview).

On a general level, the different professional groups had distinctly different perspectives on the purpose of the SU, its knowledge transfer work, and ultimately the institutionalised logics that govern any given construction project. Project professionals conditioned by various project logics ask if a project is on time, at the right cost and with the right quality; that is, they prioritise adherence to constraints as stipulated in the contract. A representative for the client who is guided by an administrative logic ask instead if the project is on time and if the key stakeholders are pleased enough with cost control mechanisms. Senior managers who operate under a corporate business-oriented logic and with a scale driven mindset, enquire about the current EBIT. These disparities highlight how institutionalised logics are enacted in different ways by the various professions engaged in project work, which altogether also influence the interprofessional dynamics through their respective priorities and objectives. While traditional roles in construction are deeply institutionalised (Kadefors 1995), the viewpoints of the SU actors are distinct and new. They view the project as a transformative operation for the client, that need to satisfy new kinds of stakeholder needs and achieve efficient life cycle performance, delivered timely and cost-effective. Such a viewpoint introduces a dynamic interplay between the SU and varying professional logics, impacting the SU’s role in strategic transformation.

Conversations with SU members disclose a deep-seated uncertainty about their value and rightful place in spearheading strategic change. These uncertainties become even

more apparent in difficult situations, like when a bid is unsuccessful, but also in routine operations. Project professionals assert their decision-making power over the project through authoritative language, relegating the SU to an advisory role without formal legitimacy, thereby asserting their own standing (Lawrence and Suddaby 2006) and highlighting a "hierarchical gap" with the SU personnel. Lacking formal power, SU members must cultivate informal influence, which necessitates forming alliances with project professionals and gradually trying to earn trust for their expertise and their focus on broader stakeholder values. During their struggles for legitimacy, SU actors are relegated to performing operational duties that are time-consuming and underutilise their specialised knowledge. These experiences echo results from other studies of how new professional groups feel marginalised in construction companies, including strategy experts (Löwstedt and Räisänen 2014), sustainability experts (Gluch and Hellsvik 2023), BIM experts (Bosch-Sijtsema *et al.*, 2019), and procurement experts (Troje and Gluch 2020). The findings of this study therefore highlight how the diffusion of new 'knowledge management' practices in construction companies can be viewed from a similar perspective; that is, as the institutionalisation process of new professional logics and roles.

Viewed through an institutional lens, the various dimensions outlined in Table 1 can be understood as components of different kinds of professional logics; reflecting differences in "thought patterns", norms, and values (Thornton and Ocasio 2008) which altogether become enacted as the forms of ongoing tensions captured in the result section. While multiple institutional logics often co-exists in organisations (Besharov and Smith 2014), our study reminds that struggles and tensions related to organisational change initiatives also could be understood as misalignments between various logics. Zooming in on the micro-levels of logics embedded in professional work thus highlights the multi-layered complexity that underlies change and transformation (Chan 2018), in our case related to a re-organisation towards strategic knowledge transfer and exploitation. The results in this study highlight the multiple entangled layers that co-exists in the development of new forms of professional work and how the "knowledge professionals" are trying to navigate the interplays between expertise (what they know), practice (what they do), and identity (how they see themselves). These entangled and mutually constitutive dimensions could thus be seen as central mechanisms for the ongoing institutionalisation of new kinds of professional work (Löwstedt and Sandberg 2020) and thus offer clues for both researchers and practitioners for how to "purposefully" support changes in institutionalised systems (Lawrence and Suddaby 2006).

Furthermore, the concepts that actors of the SU are working to implement has an important role as boundary objects (Carlile 2004) for efficient transfer by supporting translation of new knowledge to the next project. While we can see how the actors are able to work and bargain with different professional logics this comes at a cost that would be mitigated if a new professional logic would be created and maintained. A new professional logic with a new set of knowledge, new way of working and with a role of bridging the cost focused and goal-oriented project logic and the stakeholders of the client, represented by client representatives. With the construction industry dependent on institutionalised roles this professionalisation becomes more important.

CONCLUSIONS

In this study, an institutional work lens is employed to reexamine the conventional research question regarding knowledge transfer in the construction industry. A

practical lens provides a close-up view of the practical yet influential actions of actors within the organisation. The paper demonstrates how a selected group of actors can serve as the catalyst for broader change—specifically, they could have an central part in the establishment of a new professional role dedicated to knowledge transfer. To successfully introduce this new role, senior management should not solely focus on operational targets but also consider existing and emerging professional logics that can support the transformation.

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