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For Katelin

May all your dreams come true!

What is the architect doing?
He is by the riverside
What is he thinking out there?
He is committing egocide
Now isn't that a strange thing?
Well, to him it feels just
Oh we guess a person's gotta do
What a person feels he must
He said:
"I won't throw myself from the pier
I'm gonna go home and shut up for a year
And when the year is over I'll reappear
And have a solution"
I've reason to believe that what I find
Is gonna change the face of humankind
And all these years before, well I was blind
That's my conclusion
Cause I'm the architect

The Architect, dEUS
Song from the album Vantage Point (2008)

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Summary

Architectural firms can be regarded as creative professional service firms. As such, architects need to navigate creative, professional and commercial goals, while simultaneously attempting to fulfil client, user and societal needs. This complex process is becoming increasingly difficult, as the historically established role of architects has become more blurred, contested and heterogeneous. While attempting to reclaim their role or to take on new roles in collaborations with other actors, architectural firms are challenged to develop business models that are financially viable and professionally satisfactory. These business models need to facilitate firms in capturing both financial and professional value in co-creation processes, and they must also suit the project-based structure of the firm.

This research contributes insights into how firms might capture multiple dimensions of value in project-based work. It generates new perspectives on processes of organizational value capture and business model design, and provides concrete, practical insights into the difficulties of and opportunities involved in value capture by creative professional service firms.

Context and approach of the research

This research adopts a project-specific business model perspective (Kujala et al., 2010; Wikström et al., 2010) and multidimensional perspective on value to investigate the value capture strategies of architectural firms. While paying attention to the unique project contexts in which firms operate and the multiple dimensions of value they aim to capture, the purpose is to generate a better understanding of how firms attempt to capture value in order to attain their strategic goals. The research also aims to facilitate architectural firms and other organizations in dealing with the value capture challenges they face in practice. To reach these two objectives, two main research questions are addressed:

1 **How do architectural firms capture value in construction projects?**
2 **How can architectural firms be supported in developing strategies for value capture?**

Drawing on 40 case-based interviews with architects and clients from 24 recently completed construction projects, as well as observational data from 17 project-oriented strategy meetings, the value capture strategies of architectural firms are examined both in retrospect and as they unfolded in practice. The empirical insights were synthesized in a toolkit that can be used by firms to engage in projects and

manage their value capture activities in these projects with greater awareness. Through the adoption of an engaged scholarship approach (Van de Ven, 2007), the researcher's background and continued involvement in architectural practice helped to assure the scientific and practical relevance of the research.

Findings

Three types of project-specific value capture strategies were identified:

- Strategies to negotiate one's role in a project
- Strategies to capture value in the project-based interaction with a client
- Strategies to attain firm goals in a project

Strategies to negotiate one's role in a project

By negotiating a certain role in a project, architectural firms attempt to shape the conditions for value capture in it. Different roles are associated with different opportunities to capture value, as certain activities or responsibilities may or may not allow firms to appropriate monetary or professional value.

A boundary work lens (Gieryn, 1983; Gieryn, 1999) was used to investigate role negotiation strategies. The analysis indicates that architects use different strategies to negotiate the boundaries of their professional role, as they have different perceptions of what their professional expertise means when collaborating with other project actors. It was found that firms attempted to reinstate their role boundaries and return to the established situation when they felt that their professional expertise was not being valued. In addition, architects were found to bend their role boundaries to take on activities and responsibilities which were tailored to project demands when they considered their expertise to be constantly changing. Firms were also found to pioneer role boundaries and pursue an active break with the established situation when they considered their expertise as more broadly applicable.

This shows that *professional expertise* plays a key part in firms' role negotiation strategies and influences the value capture opportunities that firms might create in projects. These findings suggest that firms can improve their role negotiation strategies and how they capture value in a project by considering the expertise they have and wish to employ in the project, and by determining whether or not this expertise fits the specific project context and needs of the client.

Strategies to capture value in the project-based interaction with a client

Investigation of architectural firms' project-based interactions with clients with regard to 'use value', 'exchange value' (Bowman and Ambrosini, 2000; Vargo et al., 2008) and 'professional value' showed that architectural firms tend to prioritize the capture of professional values over exchange value and sometimes even use value. It was found that to attain their professional goals, such as maintaining or enhancing their reputation, work pleasure and continued development, firms spent more time on activities than they were paid for, provided certain activities for free, or refrained from renegotiating the fee, thereby trading off monetary value for professional value. By delivering additional quality, which was of no value to the client, firms traded off the realization of use value for the client for professional value. This shows how architectural firms were willing to sacrifice their own capture of monetary value or the use value for the client when they recognized that their professional goals might possibly become endangered. It also emphasizes the importance of professional value in architectural firms' value capture.

The trade-offs between different value dimensions demonstrate how the *hierarchy in value capture goals* plays a crucial part in the value capture strategies of architectural firms. While enabling firms to capture one dimension of value, it will constrain them in the capture of another value dimension. This suggests that firms may benefit from working towards value capture strategies that are able to generate a better balance between different values in a project.

Strategies to attain firm goals in a project

The understanding of the value capture process of architectural firms was further supplemented by providing insights into the dynamics occurring between a project and the firm. Three kinds of value capture strategies were identified at the intersection between project and firm:

- Postponing financial revenues in a project (referred to as the postponing strategy)
- Compensating for loss of financial revenue across projects (referred to as the compensating strategy)
- Rejecting a project (referred to as the rejecting strategy)

Examination of the strategies on the basis of the interaction of use value, exchange value and professional value revealed that firms adopted three types of value slippage responses in their projects:

- Taking the risk of financial value slippage
- Accepting financial value slippage
- Counteracting professional value slippage

With the postponing and compensating strategies, firms risked or accepted the slippage of financial value in a project. This means that firms engaged in projects that required an initial investment, or even remained unprofitable, and created more use value than they were paid for in these projects. The slippage of financial value that resulted from this decision was often considered beneficial, as it allowed the enhanced attainment of professional goals in the longer term. While firms sometimes considered financial value slippage as potentially beneficial, professional value slippage was always prevented by firms. With the rejecting strategy, firms counteracted the slippage of professional value in projects and avoided creating use value that could not be captured as professional value or that could even harm the firm's professional resources.

The strategies and associated value slippage responses highlight that value capture is largely influenced by a firm's *willingness to take financial and professional risks* in a project. The findings also indicate that firms do not necessarily aim for optimally balanced value capture in each project, but regularly accept or pursue 'off-balance' projects to attain higher end goals at the organizational level and over the longer term.

Business model strategizing

The business model strategizing process that architectural firms employ was studied to determine how firms arrive at their project-specific value capture strategies. Observations of 17 strategy meetings at architectural firms demonstrated that firm members developed their value capture strategies around professional values, thereby strengthening organizational identity but constraining innovation in their business models. Although actors jointly considered strategic alternatives in the strategy process, they often feared that these alternatives might be at odds with their professional values and beliefs. This typically triggered them to remain loyal to proven value capture strategies.

These findings reveal how the three aspects of expertise, goals and risks, which influence firm role negotiation and value capture strategies, are strongly related to professional identity, thereby emphasizing the importance of *professional identity* in the development of value capture strategies by architectural firms. This suggests that greater awareness of the most salient aspects of professional identity may help firms to reject projects that are fundamentally not aligned with their values and to develop value capture strategies that respect professional values for the projects in which they do engage.

Value capture toolkit

The empirical findings on how firms attempt to capture multiple dimensions of value in projects were translated into a toolkit for value capture in projects. The toolkit was specifically designed to ensure the well-balanced *integration of professional identity, expertise, goals and risks* in a project. A well-balanced integration facilitates firms in selecting projects on the basis of a role that is in line with their identity. It also helps firms to capture both financial and professional value on the basis of firm expertise and risks, and thereby attain their organizational goals. The value capture toolkit consists of four main components:

1. An overview of four generic professional role identities of architectural firms to specify the project and professional context in which one is involved.
2. A board game with cards to develop comprehensive and balanced value capture strategies for projects by answering questions around eight core aspects involved.
3. An overview of role identity-specific value capture challenges and recommendations to identify common pitfalls and opportunities for the type of role identity one has in a project.
4. Example projects for each of the four generic role identities to inspire practitioners and support the generation of well thought through strategies.

The toolkit can be used by architectural firms and other actors to analyse, monitor and improve their value capture strategies in projects. It supports actors to substantiate different strategic decisions in relation to one another in a structured fashion. This helps firms to arrive at more consciously developed and encompassing value capture strategies that can be better managed over the course of a project. The toolkit stimulates joint discussion and deliberation, which may provide firms with productive settings to develop new strategies while safeguarding the professional values and standards that are at stake.

Conclusions and implications

The investigation of architectural firms' strategies and strategy making for project-based value capture showed that capturing multiple dimensions of value in projects is a highly complex process that is shaped by responses to tensions originating in the different contexts in which the firm is embedded. While the inter-organizational project context may give rise to tensions between a firm's desired and actual role in a collaboration with other actors, the professional context generates tensions in the balance of different value dimensions within and across projects. The threefold theoretical implications of the research are outlined below.

First, this research extends the existing literature on organizational value capture (Bowman and Ambrosini, 2000; Lepak et al., 2007; Pitelis, 2009), more specifically by project-based firms (Laursen and Svejvig, 2016) by uncovering how dynamics between different values influence the value capture strategies of firms. While the existing literature on organizational value capture has solely focused on the capture and slippage of financial value, this research demonstrates that to study the value capture of firms with multiple strategic goals, value capture and value slippage theories need to be developed around multiple value dimensions.

Second, the research contributes to the literature on the management of architectural firms (Winch and Schneider, 1993) and other project-based, creative professional service firms by providing an integrative understanding of the tensions involved in the value capture of these firms and how these are dealt with. The insights gained underline the importance of developing project or solution-specific business models (Kujala et al., 2010; Wikström et al., 2010) and suggest that research on the management of creative professional service firms may benefit from additional project-specific insights into how firms co-create and capture value on a day-to-day basis.

Third, the research contributes insights into how firm members jointly design business models in a project context and are influenced by the project and professional context in which they are embedded. The research shows that although actors consider innovations in their business models, professional norms and values constrain innovation. The identification of three key aspects – goals, expertise, and risks – that shape project-specific or solution-specific business model designs, from both the perspective of the project and the perspective of the firm, adds new insights to previous studies concerned with the design of business models (Zott and Amit, 2010) and the existing literature on project-specific business models (Kujala et al., 2010; Kujala et al., 2011; Wikström et al., 2010). Thorough consideration and continuous adaptation of the goals, expertise and risks in relation to organizational identity and project conditions help strengthen the power of the business model with respect to attaining intended goals.

For architectural firms and other creative and/or professional service firms, the insights from this research and the toolkit developed will provide new means to develop and adopt more value-oriented and business-minded approaches in their projects. By facilitating the iterative development of project-specific value capture strategies, they allow firms to assess the benefits and risks of potential projects and jointly improve the conditions for value capture in these projects. Insights into the value capture process and trade-offs that practising architects must confront can also help architecture students to become successful professionals and entrepreneurs. Thus, by providing a better understanding of project-based value capture and fostering a desire to

improve this process, this research facilitates creative professionals in developing and maintaining sustainable organizations that support the realization of unique, creative visions for advancing our society.

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Samenvatting

Architectenbureaus moeten continu een goede balans zoeken tussen het realiseren van hun creatieve, professionele en commerciële doelen enerzijds en het tegemoet komen aan de wensen van opdrachtgever, eindgebruikers en samenleving anderzijds. Doordat de traditionele rol van de architect onder druk is komen te staan, wordt dit complexe proces steeds moeilijker. Terwijl architectenbureaus proberen hun traditionele rol te behouden of proactief nieuwe rollen op zich nemen in de samenwerking met andere partijen, worden ze uitgedaagd om bedrijfsmodellen te ontwikkelen die niet alleen financieel rendabel zijn, maar ook nog eens voldoening geven op professioneel vlak en passen bij de projectmatige werkwijze van bureaus.

Dit onderzoek geeft inzicht in hoe architectenbureaus verschillende waarden toe-eigenen in de projecten waarbij ze betrokken zijn. Daarmee genereert het onderzoek nieuwe wetenschappelijke perspectieven op de wijze waarop bedrijven waarde toe-eigenen en op de ontwikkeling van project-specifieke bedrijfsmodellen door creatieve ondernemingen. Daarnaast brengt het onderzoek concrete, praktische inzichten naar voren met betrekking tot de uitdagingen en kansen voor waarde toe-eigening bij de verschillende rolidentiteiten die bureaus in projecten kunnen hebben. Een wetenschappelijke ontwerpgids met bijbehorend spelbord helpen om daar zelf vorm aan te geven.

Onderzoekaanpak

Het onderzoek is uitgevoerd vanuit het perspectief van het bedrijfsmodel dat een architectenbureau hanteert in een project. In tegenstelling tot het overgrote deel aan literatuur over bedrijfsmodellen en waarde toe-eigening door bedrijven, waarin puur gefocust wordt op monetaire waarde, is in dit onderzoek aandacht gegeven aan de verschillende waarden die een rol spelen in het bedrijfsmodel van architectenbureaus. Het onderzoek had twee hoofddoelstellingen. Het eerste doel was om een beter begrip te krijgen van de manieren waarop architectenbureaus waarden proberen toe te eigenen in projecten en daarmee hun strategische doelen proberen te bereiken. Het tweede doel bestond uit het ondersteunen van architectenbureaus en andere organisaties in het omgaan met de uitdagingen van waarde toe-eigening waar ze in de dagelijkse praktijk mee te maken hebben. Om de twee doelstellingen te bereiken, lagen er twee onderzoeksvragen ten grondslag aan dit onderzoek:

1 **Hoe eigenen architectenbureaus zichzelf waarde toe in bouwprojecten?**
2 **Hoe kunnen architectenbureaus ondersteund worden in de ontwikkeling van strategieën voor waarde toe-eigening?**

Deze vragen hebben ertoe geleid dat de waarde toe-eigeningsstrategieën van architectenbureaus zowel retrospectief als tijdens de daadwerkelijke ontwikkeling zijn bestudeerd. Er is gebruik gemaakt van 40 interviews met architecten en opdrachtgevers vanuit 24 recent afgeronde projecten en van observaties tijdens 17 strategiesessies bij verschillende architectenbureaus. In deze sessies stond een recent geacquireerd project of een te acquireren project centraal. De empirische inzichten die uit de interviews en observaties voortkwamen zijn verwerkt in een ontwerpgids voor waarde toe-eigening die bureaus kunnen gebruiken om hun inbreng in projecten bewuster af te wegen en te managen. De 'engaged scholarship approach' is toegepast om de wetenschappelijke en praktische relevantie van het onderzoek te versterken. Mijn eerder opgedane praktijkervaring als architect en nauwe betrokkenheid met architecten en opdrachtgevers tijdens het onderzoek waren hierbij essentieel.

Resultaten

Drie soorten waarde toe-eigeningsstrategieën zijn geïdentificeerd:

- Strategieën om de rol in een project te onderhandelen
- Strategieën om waarde toe te eigenen in de samenwerking met een opdrachtgever
- Strategieën om organisatiedoelen te bereiken in een project

Strategieën om de rol in een project te onderhandelen

Door een bepaalde rol in een project te onderhandelen proberen architectenbureaus zelf de condities voor waarde toe-eigening in het project vorm te geven. Verschillende rollen hangen samen met verschillende mogelijkheden tot waarde toe-eigening, omdat bepaalde werkzaamheden of verantwoordelijkheden het juist wel of niet mogelijk kunnen maken om financiële of professionele waarde toe te eigenen.

De rol-onderhandelingsstrategieën van architectenbureaus zijn onderzocht met behulp van een 'boundary work lens'. Deze analyse toont aan dat architecten verschillende strategieën gebruiken om te onderhandelen over de grenzen van hun rol, omdat ze verschillende opvattingen hebben over wat hun professionele expertise waard is in de onderlinge samenwerking met andere partijen. Architecten die het gevoel hadden dat hun professionele expertise ondergewaardeerd werd, probeerden de grenzen van hun rol te herwinnen en daarmee terug te keren naar de traditionele rol met bijbehorende activiteiten en verantwoordelijkheden. Andere architecten bewogen

mee met veranderingen in de begrenzing van hun rol. Zij namen nieuwe activiteiten en verantwoordelijkheden op zich of waren bereid bestaande taken af te stoten, wanneer dat gewenst was vanuit een project. Tenslotte pionierden bureaus met nieuwe rollen als ze het gevoel hadden dat hun professionele expertise breder inzetbaar was. Deze bureaus joegen zelf een verandering in de bestaande situatie na.

Deze bevindingen laten zien dat *professionele expertise* een belangrijke invloed heeft op de rol-onderhandelingsstrategieën van architectenbureaus en daarmee de mogelijkheden tot potentiële waarde toe-eigening in projecten. Dit suggereert dat bureaus hun rol onderhandelingsstrategieën en waarde toe-eigening in een project kunnen verbeteren door stil te staan bij de expertise die ze in huis hebben en willen toepassen in het project, en door te bepalen of deze expertise voldoende aansluit op de specifieke projectcontext en wensen van de opdrachtgever.

Strategieën om waarde toe te eigenen in de samenwerking met een opdrachtgever

Een analyse van hoe gebruikswaarde, financiële waarde en professionele waarde elkaar beïnvloedden in de communicatie tussen architectenbureaus en hun opdrachtgevers, laat zien dat bureaus snel geneigd zijn om financiële waarde en soms zelfs gebruikswaarde in te wisselen voor professionele waarde in een project. Bureaus kozen ervoor om hun professionele doelen, zoals het behouden of versterken van hun reputatie, werkplezier en verdere ontwikkeling, te behalen ten koste van financiële waarde, door meer tijd te besteden aan bepaalde activiteiten dan waarvoor ze betaald werden, bepaalde diensten gratis te verlenen of af te zien van een heronderhandeling van het honorarium. Door ongewenste additionele kwaliteit te leveren, wisselden bureaus af en toe ook gebruikswaarde voor de klant in voor professionele waarde. Dit laat zien dat architectenbureaus bereid waren om hun eigen financiële waarde of de gebruikswaarde voor de klant op te offeren, zodra ze het gevoel hadden dat hun professionele doelen in gevaar konden komen. Daarnaast legt het de nadruk op het belang van professionele waarde in het waarde toe-eigeningsproces van architectenbureaus.

Het onderling inwisselen van verschillende waarden laat zien dat de *hiërarchie in waarde toe-eigeningsdoelen* van architectenbureaus een belangrijke invloed heeft op de waarde toe-eigeningsstrategieën die ze gebruiken. Hoewel deze hiërarchie de toe-eigening van waarde A (vaak een bepaalde vorm van professionele waarde) voor bureaus vergemakkelijkt, bemoeilijkt het de toe-eigening van waarde B (vaak financiële waarde). Hieruit kan worden afgeleid dat architectenbureaus profijt kunnen hebben van het toewerken naar waarde toe-eigeningsstrategieën die een betere balans tussen de verschillende waarden in een project mogelijk maken.

Strategieën om organisatiedoelen te bereiken in een project

De inzichten in het waarde toe-eigeningsproces van architectenbureaus zijn verder aangevuld met een analyse van de dynamiek tussen een project en een bureau. Dit heeft geleid tot de identificatie van drie soorten waarde toe-eigeningsstrategieën op het grensvlak tussen project en organisatie:

- Uitstellen van financiële opbrengsten in een project
- Compenseren van een gebrek aan financiële opbrengsten in een project met andere projecten
- Afwijzen van een project

Bestudering van het samenspel tussen gebruikswaarde, financiële waarde en professionele waarde in deze strategieën bracht aan het licht dat architectenbureaus op drie manieren reageerden op het potentieel wegsijpelen van waarde in een project:

- Risico lopen op het wegsijpelen van financiële waarde
- Het wegsijpelen van financiële waarde accepteren
- Het wegsijpelen van professionele waarde tegengaan

Met de strategieën 'uitstellen' en 'compenseren' liepen bureaus het risico op het wegsijpelen van financiële waarde in een project of accepteerden ze dat dit zou gebeuren. Dit houdt in dat bureaus er bewust voor kozen om betrokken te zijn in een project waarin ze moesten voor-investeren of dat zelfs nooit winstgevend zou worden. In dit soort situaties creëerden architectenbureaus meer gebruikswaarde dan waarvoor ze betaald werden. Het wegsijpelen van financiële waarde dat hiermee gepaard ging, werd door veel bureaus als voordelig gezien, omdat dit het mogelijk maakte om op lange termijn bepaalde professionele doelen te bereiken. Terwijl het wegsijpelen van financiële waarde dus soms als gunstig werd gezien, werd het potentieel wegsijpelen van professionele waarde altijd tegengegaan door bureaus. Met de strategie 'afwijzen' werkten bureaus het wegsijpelen van professionele waarde in een project bewust tegen. Ze voorkwamen hiermee dat ze gebruikswaarde creëerden die ze niet (deels) zelf konden toe-eigenen in de vorm van professionele waarde of die zelfs de professionele middelen van het bureau zou kunnen beschadigen.

De strategieën en bijbehorende reacties op het potentieel wegsijpelen van waarde onderstrepen het feit dat waarde toe-eigening door bedrijven voor een groot deel wordt bepaald door *de bereidheid om financiële en professionele risico's te nemen* in een project. Deze resultaten laten tevens zien dat bedrijven in een project niet noodzakelijk een optimale balans tussen verschillende waarden proberen te creëren, maar ook geregeld een project accepteren of zelfs actief najagen dat uit balans is, om daarmee hogere einddoelen voor de gehele organisatie en op de langere termijn te kunnen realiseren.

Strategievorming rondom project-specifieke bedrijfsmodellen

Om meer inzicht te genereren in hoe bureaus nu eigenlijk tot hun project-specifieke waarde toe-eigeningsstrategieën komen, zijn deelnemers van 17 architectenbureaus geobserveerd tijdens het ontwerpen van een bedrijfsmodel. De observaties van de 17 strategiesessies lieten zien dat deelnemers hun strategieën in gezamenlijk overleg ontwikkelden rondom hun eigen professionele waarden. De strategieën droegen daardoor bij aan het versterken van de identiteit van het bureau, maar beperkten de innovatie in het bedrijfsmodel. Ondanks dat de deelnemers gezamenlijk strategische alternatieven overwogen tijdens het proces, waren ze vaak bang dat deze alternatieven teveel op gespannen voet zouden komen te staan met hun professionele idealen.

De bevindingen onthullen dat de drie aspecten expertise, doelen en risico's, die de rol onderhandelingsstrategieën en waarde toe-eigeningsstrategieën van bureaus beïnvloeden, nauw samenhangen met professionele identiteit. Dit onderstreept het belang van *professionele identiteit* in de ontwikkeling van waarde toe-eigeningsstrategieën door architectenbureaus. Het suggereert dat een groter bewustzijn met betrekking tot de meest cruciale aspecten van professionele identiteit bureaus kan helpen om projecten af te wijzen die niet voldoende aansluiten bij de eigen idealen, en om goede strategieën te ontwikkelen voor de projecten die wel worden aangegaan.

Ontwerpgids voor waarde toe-eigening

De empirische bevindingen met betrekking tot hoe bureaus verschillende waarden toe-eigenen in projecten zijn vertaald in een ontwerpgids voor waarde toe-eigening in projecten. De ontwerpgids is speciaal ontworpen om een evenwichtige *integratie van professionele identiteit, expertise, doelen en risico's* in een project tot stand te brengen. Deze integratie ondersteunt bureaus in het selecteren van projecten op basis van een rol die past bij de eigen identiteit. Het helpt daarnaast om zowel financiële als professionele waarde toe te eigenen op basis van de eigen expertise en gewenste risico's en daarmee de beoogde doelen van het bureau te bereiken. De ontwerpgids bestaat uit vier hoofdonderdelen:

1. Een overzicht van vier generieke professionele rolidentiteiten om de van toepassing zijnde project context en professionele context te specificeren.
2. Een bordspel met kaartjes om een uitgebreide en evenwichtige waarde toe-eigeningsstrategie voor een project te ontwikkelen door vragen rondom acht kernaspecten te beantwoorden.
3. Een overzicht met specifieke uitdagingen en aanbevelingen voor de vier rolidentiteiten om de gebruikelijke valkuilen en mogelijkheden in een project te identificeren.
4. Voorbeeldprojecten voor de vier rolidentiteiten ter inspiratie en om de totstandkoming van goed doordachte strategieën te bevorderen.

De ontwerpgids kan door architectenbureaus en andere partijen gebruikt worden om de eigen waarde toe-eigeningsstrategieën voor een project te analyseren, te bewaken en te verbeteren. Het helpt gebruikers om op een gestructureerde wijze verschillende strategische beslissingen in een project in relatie tot elkaar te beschouwen en te onderbouwen. Dit helpt om te komen tot goed doordachte waarde toe-eigeningsstrategieën die beter gemanaged kunnen worden tijdens de looptijd van een project. De ontwerpgids stimuleert onderlinge discussie en overleg, wat ten grondslag kan liggen aan de totstandkoming van een productieve omgeving voor de ontwikkeling van nieuwe strategieën met behoud van bestaande professionele idealen en standaarden.

Conclusies en implicaties

Dit onderzoek naar waarde toe-eigeningsstrategieën en strategievorming van architectenbureaus toont aan dat het toe-eigenen van meerdere waarden in projecten een complex proces is dat gevormd wordt door spanningen die ontstaan vanuit de verschillende contexten waarin een bureau opereert. Terwijl de project context spanningen teweeg kan brengen tussen de gewenste en daadwerkelijke rol van een bureau in de samenwerking met andere partijen, kan de professionele context spanningen doen ontstaan in de afweging van verschillende waarden in en tussen projecten. De drie belangrijkste theoretische contributies van het onderzoek worden hieronder kort belicht:

Ten eerste draagt het onderzoek bij aan de bestaande literatuur over waarde toe-eigening door organisaties en door projectmatige organisaties in het bijzonder. Het laat zien hoe de dynamiek tussen verschillende soorten waarden de waarde toe-eigeningsstrategieën van architectenbureaus beïnvloeden. Terwijl de bestaande literatuur alleen focust op de toe-eigening en het wegsijpelen van financiële waarde, laat dit onderzoek zien dat theorieën omtrent de toe-eigening en het wegsijpelen van waarde meerdere soorten waarden in ogenschouw moeten nemen om de waarde toe-eigening van organisaties met meerdere strategische doelen goed te kunnen bestuderen.

Ten tweede draagt het onderzoek bij aan de literatuur over het management van architectenbureaus en dat van andere projectmatige, creatieve en professionele bedrijven, door een beter begrip te vormen van de spanningen die gepaard gaan met de toe-eigening van waarde door dit soort organisaties en inzicht te geven in hoe bedrijven daarmee omgaan. De bevindingen onderstrepen het belang om per project of geboden oplossing een specifiek bedrijfsmodel te ontwikkelen. Ze suggereren ook dat onderzoek naar het management van creatieve, professionele bedrijven baat kan hebben bij meer project-specifieke inzichten in hoe bedrijven in hun dagelijkse praktijk waarde co-creëren en toe-eigenen.

Tenslotte draagt het onderzoek bij aan de literatuur over de ontwikkeling van project-specifieke bedrijfsmodellen. Het inzicht in hoe de drie sleutel-aspecten doelen, expertise en risico's, die in belangrijke mate vorm geven aan de waarde toe-eigeningsstrategieën van bureaus vanuit het perspectief van het project en het bedrijf, samenhangen met professionele identiteit, brengt naar voren dat identiteit een belangrijke rol zou moeten spelen in toekomstig onderzoek naar de ontwikkeling van bedrijfsmodellen.

Het onderzoek heeft ook implicaties voor de dagelijkse praktijk van architectenbureaus en het architectuuronderwijs. De opgedane inzichten en ontwikkelde ontwerpgids bieden bureaus mogelijkheden om een meer waarde-georiënteerd en zakelijk perspectief te ontwikkelen en aan te nemen in projecten. Ze helpen bureaus om hun waarde toe-eigeningsstrategieën beter af te stemmen op een specifiek project, daarbij een goede inschatting te maken van de mogelijke kansen en risico's van het project en op die manier in gezamenlijk overleg de condities voor waarde toe-eigening te verbeteren. De inzichten in het waarde toe-eigeningsproces van architectenbureaus en de strategische afwegingen waarmee ze geconfronteerd worden kan ook architectuurstudenten helpen succesvolle professionals en ondernemers te worden. Doordat het onderzoek een beter begrip van de toe-eigening van meerdere waarden in projecten geeft, en de wil om dat proces te verbeteren aanwakkert, ondersteunt het onderzoek creatieve professionele bedrijven niet alleen om te overleven in de uiterst competitieve wereld van vandaag de dag, maar ook om hun unieke, creatieve ideeën die onze maatschappij verder kunnen brengen te kunnen blijven realiseren.

TOC

1 Introduction

Driven by their desire to contribute to the quality of the built environment and wider society, architectural firms collaborate with other actors in heterogeneous inter-organizational projects to provide products and services that solve complex spatial challenges. Due to ongoing developments in society and the construction industry, the professional roles that firms perform within these projects have become increasingly diverse, blurred and contested (Ahuja et al., 2017). While the role of architectural firms historically was clearly defined (Burr and Jones, 2010; Jones and Lichtenstein, 2008), they now cover a broad spectrum of activities and responsibilities, ranging from 'full-service' providers to specialist advisors for a certain discipline or phase (Duffy and Rabeneck, 2013; Van Doorn, 2014). The diversity in, and ongoing pressure on, roles often leads to firms experiencing difficulties when co-creating or capturing value in projects. For example, firms are not always able to realize the level of quality that they pursue, or fail to make a decent living out of their service delivery. While attempting to reconcile the demands of the many stakeholders that are involved in projects, architectural firms struggle to realize their professional and commercial goals.

Research in the field of management has shown that the simultaneous use of multiple business models helps firms to deal with different demands and opportunities when operating in diverse contexts (Aversa et al., 2015; Kujala et al., 2010; Sabatier et al., 2010). Constant innovation of these business models further contributes to the resilience of organizations (Chesbrough, 2010). Although business model theory has significantly contributed to the understanding of organizations and their collaboration in the value chain, existing theories have been largely developed on the basis of insights from traditional, entrepreneurial firms (Zott et al., 2011). As a result, business model theory primarily addresses how organizations generate financial revenues from the value that they co-create. Considering that organizations' single-minded pursuit of profits is increasingly constrained by other important goals, such as social responsibility (Thompson and MacMillan, 2010), more insight is needed into how organizations might capture multiple dimensions of value through their business models. Businesses that by nature pursue multiple strategic goals, such as architectural firms or other creative and/or professional service firms, represent an interesting empirical context for such investigations.

This research aims to generate insight into the value capture process of architectural firms: 1) to contribute to the understanding of how firms capture multiple dimensions of value in project contexts in order to realize their strategic goals; and 2) to support architectural firms in dealing with the value capture challenges they face in practice.

The following two main research questions are used to address the aims of the research:

1 **How do architectural firms capture value in construction projects?**
2 **How can architectural firms be supported in developing strategies for value capture?**

I chose to focus specifically on firms' value capture *in projects* to gain detailed, context-specific insights into the challenges and opportunities that firms encounter when attempting to balance multiple strategic goals. Multiple construction projects were studied to reveal overarching patterns in the value capture strategies of different architectural firms, across different project settings. The research draws on 25 interviews with architects and 15 interviews with clients from 24 recently completed construction projects, as well as observational data from 17 project-oriented strategy meetings to examine architectural firms' value capture strategies both in retrospect and as they unfold in practice.

Based on an engaged scholarship approach (Van de Ven, 2007), I used my own background and continued involvement in architectural practice to conduct my research. The empirical insights gained were further developed into a value capture toolkit that can be used by architectural firms to engage in projects and manage their value capture activities in these projects with greater awareness. The empirical research findings and toolkit were validated on a regular basis in conferences, discussion groups and co-organized workshops with different academic and professional communities.

In the remainder of this introduction, I will first present and discuss the theoretical background, which combines a project-oriented perspective on business and a multidimensional perspective on value. The research's scientific, practical and societal relevance will then be discussed. Subsequently, I will present the research context, paying specific attention to the roles of architectural firms in construction projects, which served as an empirical setting, and the overarching research project, futurA, in which the research is embedded. Following this, the methodological approach is discussed, with a particular focus on why a combination of empirical and design-oriented research is useful to increase our understanding of value capture by architectural firms and other creative and/or professional service firms. The introduction concludes with an overview of the remaining chapters and how they are related.

§ 1.1 Theoretical background

§ 1.1.1 A project-specific business model perspective

Projects form the core of the organizational activities of architectural firms and are the dominant means for delivering customized products and services to clients (Hobday, 2000; Turner and Keegan, 2000). Similar to other project-based firms, architectural firms largely depend on their projects to generate revenues (Arvidsson, 2009). As such, projects represent the key focus of their business strategies and can be conceptualized as 'business vehicles' (Artto and Kujala, 2008).

As projects are unique value co-creation endeavours undertaken by heterogeneous actors (Winter et al., 2006; Winter and Szczepanek, 2008), they present architectural firms with diverse business opportunities and challenges. Therefore, projects play different roles in firms' overall business strategies. While some projects are primarily aimed at generating profit, others are intended to attract new customers or are pursued to enter new markets. The diversity of projects makes it important to manage their mutual interdependences at the firm portfolio level (Martinsuo et al., 2014), but also to understand how the firm's overall business shapes and is shaped by the individual projects that are carried out (Mutka and Aaltonen, 2013).

Research on project-based firms has highlighted that the business model concept can be particularly useful for studying business at the project level (Kujala et al., 2010; Wikström et al., 2010). A business model is commonly defined as a simplified representation of how a firm does business and generates revenues (e.g. Massa et al., 2017; Zott et al., 2011). Although scholars have predominantly investigated business models at the level of the firm, the concept is also used to gain an understanding of business-related phenomena occurring at different levels of analysis, such as the individual level (Svejenova et al., 2010) or ecosystem level (Wieland et al., 2017; Zott and Amit, 2013).

Project-based firms have business models focused at the level of projects (Kujala et al., 2010), which may be derived top down from the firm's overarching business model or developed bottom-up and thereby influence the firm's overall business model (Mutka and Aaltonen, 2013). Kujala et al. (2010) distinguish between solution-specific and project-specific business models. Solution-specific business models are tailored towards the delivery of a certain solution and can be identically repeated, with the same

solution delivered again. Project-specific business models are tailored to a specific project. They are likely to change, even if only slightly, when a new project is begun.

Considering the importance of projects in the work of architectural firms, and based on the idea that architectural firms engage in business through their projects, I chose to adopt a project-specific business model perspective (Kujala et al., 2010; Wikström et al., 2010) to investigate the value capture of these firms at the level of the individual project.

§ 1.1.2 A multidimensional perspective on value

The theoretical construct of 'value' has multiple meanings. It is not only used to refer to the 'worth' of things (Gond et al., 2015), but also expresses abstract ideals and beliefs about what is good and right (Martinsuo et al., 2017). In this research, I adopt a 'value as worth' perspective and particularly connect with value-related studies in the fields of strategic management (e.g. Bowman and Ambrosini, 2000; Lepak et al., 2007; Massa et al., 2017) and project management (e.g. Artto and Kujala, 2008; Wikström et al., 2010). Scholars who study 'value as worth' have different and often competing views on value.

In the field of economics, value is largely conceptualized as a stable quality that is embedded in goods or services (Vargo et al., 2008). This view is consistent with Goods-Dominant (G-D) logic in marketing, which conceptualizes value creation as a series of activities that are carried out by a goods-producing organization in order to be exchanged for money (or other goods) in the market (Vargo and Lusch, 2004). According to G-D logic, value is created by a single firm and determined 'in-exchange' (Vargo et al., 2008).

In service-dominant (S-D) logic (Vargo, 2013; Vargo et al., 2008) and service logic (Grönroos, 2008; Grönroos and Voima, 2013), value is conceptualized as being dependent on individual perceptions. Value is only created when a firm's products and/or services are *perceive*d worthy by the client, users or other stakeholders involved (Vargo and Akaka, 2009; Vargo et al., 2008). This view emphasizes that value creation cannot be accomplished by one single actor, but always involves a series of interactions between multiple, heterogeneous actors from both the supply and demand sides. To emphasize the social dimension of value creation and the key role that value recipients play in it, many scholars have adopted the terms 'value co-creation' (Smyth et al., 2017; Vargo et al., 2008) and 'value co-destruction' (Plé and Cáceres, 2010).

Value capture and business model research by strategic management scholars also builds on the conceptualization of value as perception (Pitelis, 2009). In this research, I follow Pitelis (2009, p. 1118), who defines value as '[the] perceived worthiness of a subject matter to a socio-economic agent that is exposed to and/or can make use of the subject matter in question'.

In the strategic management literature, value capture is commonly defined as the difference between an organization's revenues and costs (Bowman and Ambrosini, 2000). Although existing literature on value capture (e.g. Bowman and Ambrosini, 2000; Lepak et al., 2007; Pitelis, 2009) and business models (e.g. Zott and Amit, 2007) provides important insights into when and how organizations capture parts of the value that they co-create with other actors, it has, thus far, only addressed the generation of profit. For example, scholars have provided insights into mechanisms that enable or support firms' financial performance, such as resource management (i.e. the structuring, bundling and leveraging of resources) (Sirmon et al., 2007; Sirmon et al., 2011) and revenue models (Amit and Zott, 2012; Zott et al., 2011).

In contrast to profit-driven production and service by firms that have been studied in the strategic management literature, architectural firms and other professional service firms pursue both commercial and professional goals (Maister, 2012). In addition to the fact that firms need a certain level of profit to remain viable, they depend largely on the capture of non-monetary value dimensions to run and sustain their business. Client relationships and the ability of firms to form and maintain these relationships are crucial for the long-term sustainability of firms (Broschak, 2015). Furthermore, with the knowledge and expertise of employees representing their most important resource with which to generate income (Greenwood and Empson, 2003), architectural firms must attract and retain people with unique knowledge, skills and motivation to secure firm performance (Canavan et al., 2013). Swart et al. (2015) argue that, as a consequence, the performance of professional service firms, such as architectural firms, is thus not only defined in terms of financial output, but may also be based on aspects such as the achievement of individual targets, new business growth or the value of a firm's reputational capital that is expressed in its brand (Swart et al., 2015).

To consider both monetary and non-monetary value dimensions in architectural firms' value capture, I chose to adopt a multidimensional perspective on value. I draw on the classic distinction between 'use value' and 'exchange value' (Bowman and Ambrosini, 2000; Vargo et al., 2008) and extend it with 'professional value'. While use value refers to an actor's subjective perception of the qualities or utility of activities, products or services, exchange value is the price that is paid for these activities, products or services at the moment of exchange (Bowman and Ambrosini, 2000). I define professional value as the perceived worthiness of the qualities or utility of activities, products or

services in attaining professional goals. While goods-producing firms directly capture value and generate profit when they exchange their goods for money (Bowman and Ambrosini, 2000), architectural firms and other service firms capture value over the entire lifecycle of the products and/or services that they deliver, as value continues to be created 'in-use' (Vargo et al., 2008).

§ 1.2 Relevance of the research

§ 1.2.1 Scientific relevance

This research investigates the complex and highly dynamic process of value capture in the context of architectural service delivery. Architectural firms and other creative and/or professional service firms have often been studied because of the paradoxes that they incorporate (Andriopoulos, 2003; DeFillippi et al., 2007; Gaim, 2017; Manzoni and Volker, 2017). However, very little is known about how these paradoxes, such as the duality between creative and commercial goals (DeFillippi et al., 2007; Townley and Beech, 2010), influence the value capture of these businesses.

To date, value capture has been predominantly studied in the fields of economics and strategic management. Focusing on the operations of functional, line-management organizations, existing value capture theories address the capture of monetary value at the moment when a good or service is exchanged (e.g. Bowman and Ambrosini, 2000; Lepak et al., 2007; Pitelis, 2009). Although these theories provide very useful concepts to study value capture, they do not take into account the social nature of the value co-creation and capture process (Vargo et al., 2008); the temporal, heterogeneous and inter-organizational nature of the project context (Sydow and Braun, 2018); or the multiple dimensions of value that are at stake (Smith et al., 2010; Thompson and MacMillan, 2010).

This research is both relevant and topical, as it develops in-depth insights into the project-based value capture of architectural firms. Recent calls for more research on value capture in the area of project business (Laursen and Svejvig, 2016; Martinsuo et al., 2017) specifically support the scientific relevance of this work. The insights developed generate new perspectives on organizational value capture that account for

the multiple dimensions of value that firms capture in the collaborative, temporary settings in which they are engaged. As such, they are of value to different academic disciplines, including value capture, the management of creative and/or professional service firms, in particular architectural firms, and the management of projects.

§ 1.2.2 Practical relevance

Practical relevance lies in the fact that this research investigates a topic about which many practitioners lack knowledge. Generally, architects and other creative professionals are not formally trained in business studies (Arditi and Davis, 1988). They may even have a certain distain for business-related or managerial activities, or consider them a distraction from their core line of work (Winch and Schneider, 1993).

Nevertheless, recent contextual developments, such as the ongoing marketization of professional services (Reay et al., 2017) and the devaluation of the exclusive knowledge bases of professionals (Ahuja et al., 2017; Vough et al., 2013), challenge them to engage in more entrepreneurial and managerial activities and move beyond existing models of professionalism (Noordegraaf, 2015; Reihlen and Werr, 2015). As the ideals of a stable and protected knowledge base have increasingly lost significance, these activities may be crucial to attract work and satisfy clients and other stakeholders involved.

Failure to understand the process of value capture and to address the challenges that it entails can lead to ill-defined business models which, especially in today's rapidly changing and highly competitive business environment, can seriously threaten organizational continuity. Detailed insights into the process and associated challenges related to project-based value capture by architectural firms may provide architects and other creative professionals with some useful insights to better manage the co-creation and capture of value in the projects in which they engage.

§ 1.2.3 Societal relevance

The societal relevance of this research lies in its focus on uncovering how architectural firms can perform their relevant work in financially viable and professionally satisfactory ways. Detailed insights into the project-based value capture of architectural firms

improve our understanding of how certain value capture strategies and specific project conditions may or may not lead to desired results. This enhances firms' individual and collective abilities to attain their socially driven goals and enables them to contribute to the built environment and wider society.

A better understanding of the value capture of architectural firms not only facilitates firms in improving their viability and competitive advantage, it also contributes to the sustainability of the architectural profession. If architects are better able to identify and specify their 'added value' to a project, and understand how they can realize this value in professionally satisfactory and financially viable ways, they will be able to develop successful business models and thereby improve their earning power. This will increase the market value of architects and ensure they remain relevant as markets and fields continue to shift.

§ 1.3 Research context

§ 1.3.1 Roles of architectural firms in construction projects

Over recent years, the service delivery of architectural firms has undergone significant changes (Burr and Jones, 2010). An increased use of alternative governance forms, such as integrated project delivery (Lahdenperä, 2012), has resulted in more diverse, often marginalized, roles for architectural firms involved in projects. Established role structures (Jones and Lichtenstein, 2008) in which architectural firms were responsible for the design and engineering of a project and expected to oversee and coordinate the project's construction, have been replaced by alternative forms of collaboration, with increased responsibilities for contractors or consortia of large organizations that are able to offer clients all-inclusive service delivery (Burr and Jones, 2010). Within these structures, architectural firms are often one of many specialist advisors, which typically decreases their authority and makes it more difficult to co-create and capture value according to their own mission and goals.

New technologies, such as Building Information Modelling (BIM) and 3D-printing, have also disrupted historically established role structures in the field. They have fundamentally altered processes of design, building and communication in the

global construction sector and consequently changed the activities, responsibilities and value chains that accompany these processes (e.g. Azhar, 2011; Bryde et al., 2013). Currently, many architectural firms attempt to take up new positions in the collaboration with other actors, such as BIM integrators or product designers of 3D facades (Jia et al., 2017; Van Doorn, 2014). However, they experience fierce competition from other organizations that also attempt to claim these new areas of work resulting from technological developments. Architectural firms also witness that aspects of their traditional roles are disappearing because they have become redundant or can be performed by other actors. For example, detailed engineering work is now often performed by product suppliers and coordinated by the general contractor, leading to a decrease in the role of architectural firms in this respect.

Furthermore, the roles of architectural firms have also changed due to other more general contextual developments. Similar to other professional service firms, architectural firms face pressures from ongoing marketization, commodification and a devaluation of their work (Reay et al., 2017; Vough et al., 2013). The competition for architectural work has significantly increased, with other actors, such as engineering firms, contractors or clients, becoming better equipped to take on certain activities or responsibilities. This has led to a decrease in architects' professional autonomy in projects and resulted in many architects feeling undervalued and marginalized (Ahuja et al., 2017).

To respond to these ongoing developments and to maintain their value in the field, architectural firms are increasingly challenged to reconsider the services that they deliver and the ways in which they deliver them (e.g. Duffy and Rabeneck, 2013; Jamieson, 2012; Schoorl, 2011; Van Doorn, 2014). Some architectural firms are proactively taking on new activities and/or responsibilities. For example, some firms are becoming involved in the front-end or back-end of projects to better assist their clients, to enlarge or strengthen their role in projects, and to increase the opportunities for future commissions (Jia et al., 2017). Other architectural firms continue to believe in the strength of their 'traditional' role and are attempting to reclaim this role in the projects in which they are involved.

Whether firms attempt to conquer new ground or reclaim lost territory, the ongoing changes in the roles of architectural firms in projects have important implications for their businesses. Marginalized positions in projects complicate the co-creation and capture of value, as firms cannot always perform the activities that they consider necessary and/or do not generate sufficient income to cover their expenses. New roles in projects may lead to difficulties, because they have not yet gained legitimacy in the field (Lieftink et al., 2018) and the associated business models typically entail a trial-and-error approach (Chesbrough, 2010; Morris et al., 2005). Thus, within the

context of ongoing societal and field level developments, architectural firms must carefully rethink their business models to remain valuable professionals and retain viable businesses.

§ 1.3.2 FuturA research project: future value chains of architectural services

This research was conducted in the Netherlands as part of futurA, a four-year research project on new governance and business models for architectural services (www.future-architect.nl). The futurA project was funded by the Netherlands Organisation for Scientific Research (NWO) as part of the CLICKNL, Built Environment programme. It is a collaboration between researchers from Delft University of Technology (Department of Management in the Built Environment), Radboud University Nijmegen (Institute for Management Research) and a consortium of partners from industry. Within the industry consortium, the Royal Institute of Dutch Architects (BNA), five Dutch architectural firms and three Dutch client organizations are represented.

FuturA consists of two interlinked PhD projects that each have their own focus, while both take the role of architectural firms in construction projects as their points of departure. Bente Lieftink is a doctoral candidate at Radboud University Nijmegen. Her research focuses on inter-organizational collaboration in construction projects, how architects can pursue new roles in this collaboration, and how they legitimize these within the field. My research focuses on how architectural firms capture value in construction projects and how this process is influenced by and influences the role of firms within these projects. The combination of our doctoral research projects fits tightly within the overall scope of futurA. Bente Lieftink and I have closely collaborated during the entire research process: we collected and analysed some of the empirical data together; we wrote a joint paper on the role of architects in projects, which is included in Chapter 2 of both our theses; and we drew on the findings of the entire futurA project for our doctoral dissertations and the value capture toolkit. Figure 1.1 presents an overview of the futurA research project.

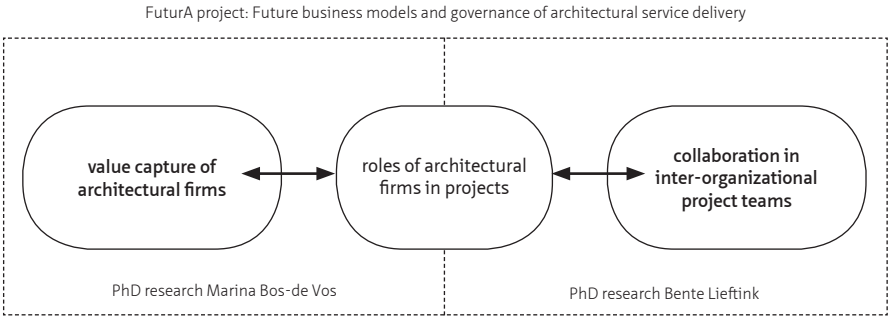

FIGURE 1.1 Thematic overview of the futurA research project

§ 1.4 Research methodology

This research aims to generate insights that add to the understanding of value capture by architectural firms and which are relevant to academia and practice. To address this aim, I chose to conduct both qualitative empirical research and design-oriented research. The empirical research (Part 1: Chapters 2–5), contributes to the academic literature by focusing on obtaining a fine-grained understanding of the value capture process of architectural firms. The design-oriented research (Part 2: Chapter 6), aims to translate these important research findings into a toolkit that practitioners can use to deal with the complexities of value capture in their everyday work. During the research, I repeatedly alternated between the empirical research and the design-oriented research, which enabled me to construct my empirical research around themes that seemed particularly relevant for the design of the toolkit; thus developing the toolkit on the basis of the latest empirical findings and using the preliminary versions of the toolkit components in subsequent stages of the data collection process. Figure 1.2 presents an overview of my research design.

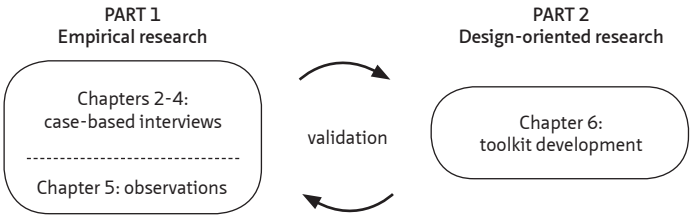

FIGURE 1.2 Research design

The research was designed, conducted and validated with the help of practitioners to build theory from practice (Schultz and Hatch, 2005). My own form of engaged scholarship (Van de Ven, 2007), with over seven years work experience as a practising architect and through continued involvement in the field during the entire research project, further contributed to developing a strong practice-based research approach. My own background in the field allowed me to delve into the empirical research as soon as the project started and helped me to see overarching relationships, as well as allowing me to continuously reflect on the value of the empirical findings. Frequent interaction with practitioners was also crucial to acknowledge and address my own practice-based biases.

Validation of my methods and findings took place on a regular basis throughout the entire four-year research programme. The validation process occurred over multiple events, including a series of ten co-organized 'Living Lab' workshops (Mulder and Stappers, 2009) with the futurA consortium partners and occasionally a larger group of practitioners, as well as conferences, symposia and discussion groups with different academic and practitioner communities. These events also helped to continue the alternation between empirical research and design-oriented research and to ensure productive interaction between research and practice.

§ 1.4.1 The empirical research

To answer the first research question: *How do architectural firms capture value in construction projects?*, I chose to adopt a qualitative approach (Denzin and Lincoln, 1994; Van Maanen, 1979). Qualitative research is particularly useful for building theory around processes of which little is known and, therefore, it is a highly appropriate approach to the study of value capture from a project-oriented and multidimensional perspective, which, thus far, has been largely absent from the existing value capture literature.

As discussed in § 1.2, I chose to investigate the value capture of architectural firms in the context of specific projects. Construction projects offer representations of how architectural firms do business (Turner and Keegan, 2000), and because of their temporary nature, they are able to provide comprehensive insights into the mechanisms that underlie the value capture process of architectural firms. Such comprehensive insights are more difficult to obtain when investigating an entire firm.

To ensure good representation of the Dutch architectural field and to allow different perspectives to appear, I used the purposeful sampling technique of 'maximum variation' (Patton, 2005). I selected architectural firms with diverse strategic orientations (cf. Coxe et al., 2005), ages and sizes (cf. European Commission, 2005). The projects in which these firms were involved differed in typology (residential buildings, hospitals and care facilities, offices, educational buildings, sports facility, railway station, etc.), geographical location, governance form (traditional and integrated project delivery) and involved different types of client organizations (public, semi-public and private).

Semi-structured interviews (Brinkman and Kvale, 2015) were chosen as the primary method of data collection to investigate the project-based value capture of architectural firms in retrospect (Chapters 2, 3, 4). Focusing each interview on a specific case allowed me to gain rich information on the value capture of architectural firms in specific projects, while encouraging the respondents to contrast their experiences in the project to other projects. The interviews conducted concerned 24 diverse construction projects that had been ongoing for at least one year or had been realized no longer than a year before the date of the interview to ensure that respondents were able to readily reflect on the process. In total, I conducted 25 interviews with architects who were or had been involved in the respective project and 15 interviews with the clients that the architects had collaborated with in the project. In addition, firm-specific and project-specific archival documents were collected to limit common method bias (Podsakoff et al., 2003) and for triangulation purposes (Ravitch and Carl, 2015). The data gathered were used to generate insights into the strategies that firms use to negotiate their roles in construction projects (Chapter 2), the strategies that firms use to capture value in the interaction with the client (Chapter 3), and the strategies that firms use to attain organizational goals in a project (Chapter 4). Table 1.1 provides an overview of the data collected and the sub-questions that were addressed.

To investigate the value capture strategies of architectural firms as they unfold in practice (Chapter 5), I organized strategy meetings with 17 architectural firms. Observation (Patton, 2005) was chosen as the main method of data collection. The meetings were structured around the use of a preliminary version of the value capture framework that was being developed in the design-oriented part of the research

project. The framework offered an outline which allowed a structured discussion of a number of value capture related topics (project choice, value proposition, goals, activities, risks, resources, partners, costs, revenue model and agreements) in relation to a new or recently started project and thereby served as a cognitive map (Ambrosini and Bowman, 2001). The meetings lasted approximately three hours and were all moderated by the same external researcher to ensure robustness. I had a participatory observer role and kept track of the process, decisions and outcomes of the session in an event log. The groups of participants ranged between 2 and 7 people, who were, in line with my request, selected by the management of each firm to ensure that the sessions would be similar to the firms' regular strategic meetings. The meetings were entirely video-recorded and further documented with photographs. Firm-specific and project-specific information was also gathered by means of firm websites for triangulation purposes. The data collected were used to develop insights into how architectural firms develop strategies for project-based value capture and how their strategizing is influenced by identity-strategy tensions (Chapter 5) (see Table 1.1 for the data collected and sub-question).

	TOPIC & RESEARCH QUESTION	METHOD & DATA COLLECTED	PUBLICATIONS & PRESENTATIONS
PART 1	**Scientific insights into value capture of architectural firms** *How do architectural firms capture value in construction projects?*		
Chapter 2	**Strategies to negotiate one's role in a project** *How do professionals negotiate the boundaries of their roles in an inter-organizational project setting to respond to threats of marginalization?*	**Interview study** – 33 in-depth, case-based interviews with architects of 31 diverse construction projects – 18 in-depth, case-based interviews with clients of the same projects – Archival materials of the cases	*Journal paper:* Under review at *Journal of Professions and Organization* *Conference paper & presentation:* – SSE/Said Business School Conference on Professional Service Firms 2017 *Presentation:* – FuturA Living Lab #2, 2014
Chapter 3	**Strategies to capture value in the project-based interaction with a client** *How do architectural firms capture value for organizational purposes in the project-based interaction with their client?*	**Interview study** – 10 in-depth, case-based interviews with architects of 9 large housing projects[1] – 10 in-depth, case-based interviews with clients of the same projects[1] – Archival materials of the cases[1]	*Journal paper:* Published in *Construction Management and Economics* *Conference paper & presentation:* – 31st European Group of Organizational Studies (EGOS) Colloquium 2015 – 31st Association of Researchers in Construction Management (ARCOM) Conference 2015 *Presentations:* – FuturA Living Lab #6, 2015 – 1st Creative Industries Research Seminar on business and management-related questions, organized by Rotterdam School of Management 2015
Chapter 4	**Strategies to attain firm goals in a project** *How do architectural firms capture multiple dimensions of value from their projects and how do their project-based approaches relate to the overarching goals of the firm?*	**Interview study** – 25 in-depth, case-based interviews with architects from 24 diverse construction projects[1] – 15 in-depth, case-based interviews with clients of the same projects[1] – Archival materials of the cases[1]	*Journal paper:* Under review at *International Journal of Project Management* *Conference paper & presentation:* – Engineering Project Organization Conference (EPOC) 2014 – 30th ARCOM Conference 2014 – EPOC 2016 – 32nd ARCOM Conference 2016
Chapter 5	**Business model strategizing** *How do members of architectural firms negotiate identity-strategy tensions in their business model designs, and how do their business models impact on existing identity claims?*	**Observational study** – Observations of 17 strategy workshops with architectural firms – 17 filled-in strategy frameworks – Accounts of firms' websites	*Journal paper:* Draft version *Conference paper & presentation:* – Society for Advancement of Management Studies (SAMS) Creative Industries Early Career Paper Development Workshop 2017 – 33rd EGOS Colloquium 2017 – 33rd ARCOM Conference 2017

[1] *This data is part of that listed for Chapter 2 above*

TABLE 1.1 Overview of the empirical research

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§ 1.4.2 The design-oriented research

To answer the second research question: *How can architectural firms be supported in developing strategies for value capture?*, I used a design-thinking approach (Dorst, 2011) to work towards the design of simple integrated frameworks that are able to convey the mechanisms behind the complexities of value capture and can also function as practical tools (Schultz and Hatch, 2005). The design-thinking approach is particularly helpful in dealing with the open, complex problems associated with the development of practical tools (Dorst, 2011). Due to my background as a practising architect, I was not only formally trained in using this approach, but also gained valuable experience using it in diverse, multidisciplinary project settings.

The value capture toolkit (Chapter 6) was developed in the design-oriented research though a multi-step, iterative process, in which insights gained from the literature and my own empirical research were combined. Frequent meetings with the futurA research team, the consortium partners and other practitioners played a key role in this process. They were instrumental for both the development and validation of the toolkit. A preliminary version of one of the components of the toolkit was used in the strategy meetings at architectural firms, which resulted in valuable feedback for the toolkit's further development. Table 1.2 provides an overview of the design-oriented research.

	TOPIC & RESEARCH QUESTION	METHOD & DATA COLLECTED	PUBLICATIONS & PRESENTATIONS
PART 2	**Value capture toolkit for architectural firms** *How can architectural firms be supported in developing strategies for value capture?*		
Chapter 6	**Toolkit for developing project-specific value capture strategies**	**Design-thinking approach** – 33 in-depth, case-based interviews with architects[1] – 18 in-depth, case-based interviews with clients[1] – Archival materials of the cases[1] – Observations of 17 strategy workshops[2] – 32 filled-in strategy frameworks[2]	*Journal paper:* Draft version *Conference paper & presentation:* – Professional Practices in the Built Environment Conference 2017 *Presentation:* – Two discussion groups organized by the Royal Institute of Dutch Architects 2016 & 2017 – FuturA Living Lab #8, 2016 & #9, 2017 – Delft University of Technology Research Exhibition 2017 – FuturA Symposium 29 March 2018

[1] *This data is part of that listed for Chapter 2 above*
[2] *This data is part of that listed for Chapter 5 above*

TABLE 1.2 Overview of the design-oriented research

§ 1.5 Structure of this dissertation

The main body of this doctoral dissertation consists of two parts: an empirical part consisting of four free-standing empirical research papers; and a design-oriented part consisting of one chapter about the value capture toolkit that was developed for practice. As the other futurA team members acted as co-authors of the papers, Chapters 2-5 are written using the first-person plural. In the following, I will briefly introduce the chapters of my dissertation and explain how they are related to one another.

Chapter 2 provides a micro-level account of how architects negotiate the boundaries of their professional roles in inter-organizational projects to respond to threats of marginalization. By adopting a 'boundary work lens' (Gieryn, 1983; Gieryn, 1999), we found that architects were reinstating, bending or pioneering new role boundaries. The paper unravels the drivers of and barriers to individual professionals in the pursuit of various roles for their organizations. It shows that *professional expertise* played a key part in negotiations of the role of architects and influenced the value capture opportunities that firms could or could not create in projects.

Chapter 3 focuses on the value capture strategies that firms use in project-based interactions with a client. It unravels organizational drivers of and barriers to value capture in projects. We found that architectural firms pursued capture of professional value to attain their professional goals, such as reputation, work pleasure and development, and often prioritized these value dimensions over the capture of monetary value. This shows how the *hierarchy in different organizational goals* both enables and constrains firms in the capture of value in projects.

The understanding of the value capture process of architectural firms is further supplemented in Chapter 4. In this chapter, we provide insights into the dynamics occurring between a project and the organization that are involved in the value capture of architectural firms. We explain how value capture strategies of postponing financial revenues in a project, compensating for loss of financial revenue across projects, and rejecting a project were used to attain organizational goals. The strategies chosen show that architectural firms risked or accepted the slippage of financial value in projects and counteracted the slippage of professional value to enhance the overall benefits for the firm. This highlights how a firm's *willingness to take financial and professional risks* in a project influences its value capture.

Chapter 5 provides a better understanding of how architectural firms develop value capture strategies for projects and how they deal with identity-strategy tensions

during this process. The 17 strategy meetings organized at architectural firms demonstrated that firm members collaboratively constructed their business models around professional values, thereby strengthening organizational identity, but constraining innovation in their value capture strategies. This reveals the important role of *professional identity* in the development of value capture strategies by architectural firms.

Chapter 6 presents the design-oriented part of the research project. Based on the literature on business models and project governance, as well as empirical insights from the previous chapters and the research of Bente Lieftink, we developed a toolkit for value capture in projects that is specifically designed to ensure the well-balanced *integration of expertise, goals and risks* in a project from the perspective of a firm's role identity in the project. The toolkit consists of an overview of four generic professional role identities of architectural firms, a board game with cards for value capture in projects, an overview of role identity-specific value capture challenges, and examples of projects. The toolkit can be used by architectural firms and other actors to analyse, monitor and improve their value capture strategies in projects. The chapter explains the relevance of the toolkit, how it was developed, the different components of the toolkit, and how these can be used in practice.

Finally, in the discussion chapter (Chapter 7), I provide a summary of the key findings, present the theoretical contributions, reveal the practical implications and reflect on the relevance and limitations of the research approach and findings for academia and practice.

PART 1 Empirical research

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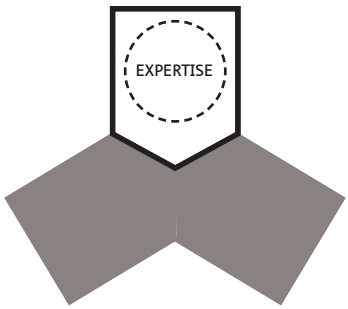
2 How to claim what is mine: Negotiating professional roles in inter-organizational projects



This is a co-authored paper with equal contributions by myself and Bente Lieftink. Currently, the paper is under review at *Journal of Professions and Organization*. Previous versions of this paper were presented at:

– FuturA Living Lab #2, 25 March 2014, Delft, the Netherlands.

– The SSE/Said Business School Conference on Professional Service Firms, 9-11 July 2017, Stockholm, Sweden.

Abstract

Professional roles within inter-organizational projects have become increasingly diverse and contested, yet little is known about how the members of a profession react to the threats of marginalization these collaborative settings entail. Focusing on the architectural profession, in which historically established role boundaries have become particularly blurred, we analyse how professionals address the concept of these boundaries in order to negotiate their roles in inter-organizational projects. Drawing on empirical data from interviews with project architects, we identify and detail three types of boundary work: reinstating role boundaries, bending role boundaries, and pioneering role boundaries. These categories exemplify how professionals may frame the threat of marginalization differently depending upon their preconceptions of what constitutes professional work. This study provides important insights into how professionals reclaim, change, or temporarily adapt their practice domains in inter-organizational projects; how their boundary work practices help to (re)shape role structures; and how these practices may trigger different paths of professional evolution.

Keywords

Professional role; boundary work; role structures; inter-organizational projects; architects.

§ 2.1 Introduction

When delivering complex services to clients through inter-organizational projects (IOPs), professionals need to work across boundaries and integrate different domains of expertise (Jones et al., 1998). As research in project-based industries, like film and construction, has shown, such collaboration is typically enabled through the establishing of a number of stable structures, such as 'role structures' (Bechky, 2006). Role structures provide professionals with a shared understanding of each other's 'territory' in a project according to which work is allocated. To date, scholars have largely investigated how stability is achieved in an IOP setting and little is known about how collaborating professionals deal with issues of instability and conflict in these contexts (Van Marrewijk et al., 2016). Such insights are relevant since established role structures have become increasingly unstable.

Contextual developments, such as the decline in public confidence in professions and the widening and the broadening of access to a profession's unique knowledge base, have led to misaligned expectations amongst project actors regarding the processes and outcomes which constitute specific professional work (Vough et al., 2013). Concurrently, the ongoing marketization of professional services (Freidson, 2001), increase in consumer control (Wallenburg et al., 2016), and growing competition over professional work, have blurred formerly established role boundaries in IOPs. Increased contestation over professional roles often results in threats of marginalization for certain professionals (e.g. Ahuja et al., 2017). Hence, professionals collaborating in IOP settings are not only challenged to work across boundaries and integrate different domains of work to address project demands; they also need to defend demarcations of a domain of work to retain professional power, status and remuneration.

In this study, we investigate how professionals negotiate the boundaries of their roles in an IOP setting to respond to threats of marginalization. Existing research provides important insights into how professionals respond to contextual changes and possible alterations of their task domains (e.g. Chreim et al., 2007; Noordegraaf, 2015; Reay et al., 2017). However, how professionals shape their responses in interactions with other actors in the complex, dynamic and temporal setting of IOPs has been largely unexplored (Stjerne and Svejenova, 2016). To address our research aim, we adopt a 'boundary work lens' (Gieryn, 1983; Gieryn, 1999). A boundary work lens allows examination of the micro-practices in which professionals engage to create, shape and disrupt boundaries that distinguish their work from the work of others (Fournier, 2002; Gieryn, 1983; Zietsma and Lawrence, 2010).

We selected construction projects as the empirical setting for our study. Until recently, professionals in the construction industry collaborated in traditional project deliveries, in which professional roles were largely institutionalized and professionals were hired by the client for a clearly defined set of activities and responsibilities. Recent developments in the field, such as the introduction of integrated project delivery methods and Building Information Modelling (BIM), a data-driven engineering and communication technology that has been widely adopted in the field (Whyte, 2011), have disrupted previously established demarcations between professional domains. As a result, professional roles are increasingly in flux and under negotiation. In this paper, we focus particularly on the struggles of the architectural community. Architects, who traditionally operated as one of the key actors in construction projects (Cohen et al., 2005), currently often feel undervalued and marginalized (Ahuja et al., 2017) and struggle to compete for work (Manzoni and Volker, 2017).

Building on 33 in-depth interviews with project architects, we investigate boundary work retrospectively to identify overarching patterns in the boundary work of multiple

architects. Our study reveals that architects engaged in three different types of boundary work to deal with threats of marginalization: 1) reinstating role boundaries, 2) bending role boundaries, and 3) pioneering role boundaries. By unravelling the underlying characteristics and mechanisms of these types of boundary work, we show how various perceptions around professional expertise led architects to pursue different roles and to negotiate these roles in different ways.

Our study contributes to research on professions and more specific on professionals working in inter-organizational settings. Firstly, we show how professionals may also choose flexible responses to threats of marginalization instead of merely trying to maintain (Gray et al., 2011) or change (Reay et al., 2006) their practice domains. Secondly, while focussing on the contextual dynamics of IOPs, we present how the boundary work of professionals (re)shapes role structures. Finally, the three types of boundary work highlight that professionals respond to pressures differently according to their perspective on the profession. This suggests the existence of professional subgroups, which may ultimately lead to divergent paths of evolution within the profession.

The paper is structured as follows: we first review the literature on boundary work, boundary work of professionals and role boundaries in IOPs. In the methods section, we describe our empirical setting, how we selected projects and respondents and how the interviews were conducted and analysed. In the results section, we describe the three types of boundary work we identified. We conclude by discussing the theoretical contributions and practical implications of our findings, boundary conditions and directions for future research.

§ 2.2 Theoretical background

§ 2.2.1 Boundaries and boundary work

Boundaries are typically described as borders or demarcation lines that establish categories of objects, people or activities and regulate interactions between them (Gieryn, 1999; Lamont and Molnár, 2002; Stjerne and Svejenova, 2016; Zietsma and Lawrence, 2010). Boundaries are constructed in social interactions and as 'unstable, ambiguous, multi-faceted and composite' elements (Stjerne and Svejenova,

2016, p. 1773) continuously redefined and adapted (Hernes, 2004). Boundaries have been a subject of study in many research disciplines and empirical contexts, whether as symbolic, mental or physical boundaries (Hernes, 2004; Lamont and Molnár, 2002). They can vary from being thin (i.e. open to influence) and integrating aspects of different categories, to thick (i.e. closed to influence) and segmenting between different categories (Ashforth et al., 2000). Thus, boundaries can be clear demarcations between dichotomous or mutually exclusive entities or 'permeable membranes' that allow some demarcation between one's situation and that of others (Marshall, 2003; Patru, 2017).

The notion of 'boundary work' refers to the strategic efforts of actors to create, maintain or change boundaries (Ashforth et al., 2000; Gieryn, 1983; Lamont and Molnár, 2002). Gieryn (1983, 1999) was among the first to coin the term boundary work when he studied how the scientific community sought to protect their professional autonomy in seeking to secure resources and public support to conduct their research activities. In Gieryn's study, scientists rhetorically distinguished 'real' from non-science by using different forms of boundary work, including monopolization, expansion, exclusion and protection of autonomy. Akkerman and Bakker (2011) investigated the literature on boundary crossing, which involves 'enter[ing] onto territory in which we are unfamiliar and to some extent therefore unqualified' (Suchman, 1993, p. 25) and found that boundary crossing should not be seen as a process that results in homogeneity but that it can establish continuity in situations of sociocultural difference. Although boundary work occurs in many domains (Paulsen and Hernes, 2003) professions represent an area in which boundary work is particularly salient (Abbott, 1988; Anteby et al., 2016). In the context of professions, boundary work has been closely linked to struggles over jurisdiction, in which professionals claim authority over the tasks within their domains (Abbott, 1988; Bechky, 2011).

§ 2.2.2 Boundary work of professionals

Contemporary research has shown that the historically established distinction between professions and other occupations can be questioned (Evetts, 2003) and that new boundaries are constantly constructed and (re)negotiated (Montgomery and Oliver, 2007). Within this domain of research, studies have focused on the creation, maintenance and altering of professional boundaries at field level (Abbott, 1988; Bucher et al., 2016; Lawrence, 2004; Suddaby and Greenwood, 2005) and at the level of everyday work practices (Allen, 2000; Barley, 1996; Chreim et al., 2013; Wikström, 2008). Field level studies paid attention to macro-level effects of boundary work by

professionals. For example, the study of Bucher et al. (2016) showed how professional associations responded to a potential change in jurisdictional boundaries. In reaction to a government proposal to strengthen inter-professional collaboration, associations engaged in issue framing, justifying, self-casting and altercasting as forms of discursive boundary work to (re)shape professional boundaries.

At the level of everyday work practices, some studies have focused on micro-level strategies of professionals in order to protect their role boundaries (e.g. Gray et al., 2011). Most of these studies have been conducted in health care, were initiatives such as patient-centred and holistic care gave rise to boundary disputes. In this inter-professional context, different groups deliberately positioned others as unfavourable to maintain existing boundaries. For example, higher status professionals attempted to preserve boundaries in the face of threat from newer occupational groups by referring to 'others' as technicians and positioning their own profession as more holistic (Allen, 2000). Other studies showed how professionals were seeking to expand their role boundaries in other domains (e.g. Reay et al., 2006). These studies focused less on discursive aspects, but looked at practices, such as the performing of each other's tasks, through which role boundaries were continually negotiated (Apesoa-Varano, 2013). This boundary crossing or mitigating was elaborated by Van Bochove et al. (2016) with what they referred to as 'welcoming work'. In their study, volunteers were 'invited' by professionals to enter their domain as the professionals noticed in their daily work that these volunteers possessed skills that they themselves did not have. In this case, roles of actors were actually being transformed. Although these micro-level studies showed different strategies employed by professionals when dealing with blurring boundaries, none of these studies looked at the highly dynamic and temporary context of IOPs, which we turn to now.

§ 2.2.3 Role boundaries in inter-organizational projects

In project-based industries, such as advertising, film and construction, different occupations and professions work together for a limited period of time on the delivery of unique products and services to solve complex customer problems (Jones et al., 1998). This requires groups of actors to work across their professional boundaries in order to integrate the different types of expertise that are needed to serve the client. In these temporary, inter-organizational settings, roles or role structures are used as mechanisms to coordinate the interaction of diverse collaborating professionals (Bechky, 2006; DeFillippi and Sydow, 2016; Whitley, 2006). A role structure can be defined as a shared understanding of actors' roles and their respective expertise

and responsibilities (Bechky, 2006). In her studies of film crews, Bechky revealed how role negotiations, which involved mundane acts such as role-oriented joking, enthusiastic thanking and polite admonishing, enabled and constrained work activity. The repeated enactment of the role structure in successive projects stabilized the organizational structure across the film industry. As such, project participants with little or no shared history of working together, easily agreed on their position within the role structure and were instantly able to work effectively together in temporary settings (Jones et al., 1998).

The interactions between actors in IOPs are thus carried out in line with a specific pre-existing structural context that is assumed to be relatively stable across projects. However, as the work that is performed in inter-organizational projects has become more complex and has involved more actors over time, the competition over task jurisdictions has intensified (Jones et al., 1998). Established demarcations between domains of work have also become more fluid and contested because of ongoing societal developments, such as the marketization of professional services (Freidson, 2001) and increase in consumer control (Wallenburg et al., 2016). As a result, professional roles in IOPs are increasingly under pressure and professionals often fear being marginalized (Ahuja et al., 2017). Hence, the negotiation of professional work within IOPs has become particularly important. Professionals do not only need to work across boundaries to integrate different domains of expertise, they also need to realize their own aims and secure revenues. Because boundary work studies have not specifically focused on IOPs (Stjerne and Svejenova, 2016), our study delves more deeply into how professionals, in particular architects, negotiate their role boundaries in IOPs to respond to threats of marginalization.

§ 2.3 Methods

As the objective of this study can be best described as theory elaboration (Vaughan, 1992) with regard to boundary work of professionals in IOPs, qualitative research procedures are most adequate (Edmondson and Mcmanus, 2007). We aim to analyse how members of the architectural profession dealt with the pressure of being marginalized within construction projects, in which architectural work is mainly conducted.

§ 2.3.1 Research setting

Architects are part of a professional group that performs creative and aesthetic work on the basis of a shared set of professional norms, standards, values and beliefs (Cohen et al., 2005; Jones et al., 2012; Styhre and Gluch, 2009). In their daily work, architects make use of their aesthetic knowledge (Blau and Power, 1984; Cuff, 1992; Winch and Schneider, 1993) and technical expertise to deliver design, engineering and/or supporting services for complex spatial challenges in project-based collaborations involving various actors, such as engineers, developers, clients, contractors, government officials, users and other consultants.

The work that architects perform in construction projects is embedded in established role structures (Jones and Lichtenstein, 2008) which are based on and communicated through various industry protocols. Due to the increased complexity of projects and the emergence of new professional disciplines in the value chain, the roles of architects have become more specialized over time. This has subsequently reduced levels of professional autonomy and caused shifts in the activities and responsibilities that architects fulfil in construction projects (Ahuja et al., 2017; Duffy and Rabeneck, 2013). Architects often feel that their work in projects is undervalued and marginalized (Ahuja et al., 2017).

On the one hand, architects have deliberately distanced themselves from certain aspects of their work. For example, many architects increasingly focused on design activities as they preferred the creative, innovative dimension of their work over the technical and/or managerial components (Cohen et al., 2005). On the other hand, architects were also forced to take on fewer responsibilities in projects. Clients increasingly commissioned firms that were able to provide an all-inclusive service since they lack both capacity and skills to integrate all the different parties that are involved in the construction process (Burr and Jones, 2010). This has led to an increasingly important position of other actors in the role structure. Contractors now often take the lead in integrated project deliveries (Lahdenperä, 2012), such as Design and Build or Design, Build, Finance, Maintain, Operate (DBFMO) projects.

In these situations, an architect is hired by the contractor (or a consortium of contractors, developers and/or investors), who integrates and controls multiple project phases and is often primarily interested in streamlining the construction process and/or optimizing maintenance and operation to realize cost reductions. Many architects fear that, within such role structures, they are unable to guard the quality of the design throughout all project phases, as their involvement is often limited to the front-end of the project and they are hired by a profit-oriented party instead of the actual user of the

project. Previously established role structures in the construction industry have also been disrupted by technological developments, such as the introduction of Building Information Modelling (BIM). BIM comprises a 3D modelling and communication technology that has significantly altered processes of design, building and communication in the global construction sector over the past few decades (e.g. Azhar, 2011; Bryde et al., 2013). Building professionals collaborate in a 3D model that is often aimed to generate the exact information that is needed for construction, maintenance or operation of a project. This caused changes in activities and responsibilities between involved actors. Detailed engineering work, for instance, is often performed or at least coordinated by the general contractor, leading to a decrease in the role of the architect. BIM has also introduced 'grey areas' of new activities and responsibilities that, as of yet, have not been allocated to a certain actor. As a consequence, different actors all try to claim (parts of) these grey areas.

§ 2.3.2 Data collection

Our primary method of data collection was in-depth interviews with project architects in the Netherlands. Interviews focused on a recent project in which they had been involved. To ensure that we would capture a comprehensive scope of architectural services, our sampling was based on a broad selection of building types, including residential buildings, hospitals and care facilities, offices, educational buildings, a sport facility and a railway station. These projects all moved through typical phases of briefing, conceptual design, schematic design, design development/engineering, constructing documentation and actual construction (Burr and Jones, 2010; Cohen et al., 2005). Rather than attempting to follow a few projects from beginning to end, we chose to concentrate on a broader set of projects that had been finished no longer than a year prior to the interview. The decision to cover role negotiations in various projects neatly fitted with our research aim to explore how members of a professional community dealt with the pressure of being marginalized. Moreover, we believe that as the interactions during the projects were still vivid, respondents were better able to reflect on the "doings" and outcomes of their negotiation strategies.

In total we conducted 33 interviews with architects in the period between 2014 and 2016. All interviews were conducted at the offices of interviewees, lasted between 45 and 120 minutes and were audio-taped and transcribed verbatim. All interviewees had been trained as professional architects and worked on the selected architectural projects from start to end. Prior to the interview, we often received a short tour of their workplace and in some cases we informally spoke to other architects that worked on

the selected project. During the interviews, we asked architects to talk about how the project was organized and how they perceived their profession in comparison to the others in the team. Then, we asked about their actions, perceptions and thoughts relevant to their role in the project. This led to conversations about conflicts they experienced in the project with regard to their activities and responsibilities, how they handled these conflicts and how particular responses played out over time.

In addition to interviews with project architects, we conducted several interviews with clients from the selected projects. The purpose of these interviews was to gather additional insights regarding the role and performance of the architect in the project. We specifically asked clients why they selected the architect (or architectural firm), how they experienced the collaboration with the architect and how satisfied they were with the outcome of the project, since the perception of clients might differ from the perception of architects on these matters (Volker, 2012). We also collected archival materials: industry reports and protocols, to gain a more detailed understanding of architects' activities and responsibilities in Dutch construction projects (e.g. BNA and NLingenieurs, 2013, 2014; BNA and ONRI, 2008; Schoorl, 2011); and project documentation, to develop greater contextual understanding of architects' roles in the projects under investigation. The client interviews and archival materials were used for triangulation purposes (Jick, 1979).

§ 2.3.3 Data analysis

We chose a three-step iterative process in which we continually switched between analyses of individual interviews and cross-case comparisons, to identify overarching patterns in the projects of multiple architects without losing the insights that individual interviews had to offer. We used the interview transcripts with project architects as primary data for the analysis. The interviews with clients and project documentation were used to support and refine emerging themes.

The first step of our analysis involved open coding of individual interviews. This process began with each author reading and reviewing all the interview transcripts and independently developing potential codes in the margins. We used MAXQDA as a supporting tool to capture and systematically code all interview data. We compared and discussed the codes to develop a shared understanding of the key codes per interview. The codes were often related to the professional identity of architects, the changing nature of architectural work, developments in the field and competing values in projects.

In the second step, we jointly compared and discussed recurring codes of multiple interviews and grouped them into overarching themes. The themes that emerged during this process included architects' perceptions regarding: 1) their value and professional task, 2) their roles in projects, and 3) their abilities to influence this role. These themes revealed that architects negotiated their roles within projects differently based on different underlying beliefs, different perceptions of roles and different negotiation practices.

The third step of the analysis aimed to investigate how the role negotiations of architects differed exactly. Following our research question, we chose to focus our analysis on further detailing the 'why', 'what' and 'how' of architects' role negotiations. We used the details that were provided in the individual interviews to develop comprehensive overviews of what exactly happened for the various instances in which an architect negotiated his/her role in the project. We found that the 'why' was largely concerned with architects' perceptions of professional expertise, how architects saw their actions in the project as influenced by other actors (we labelled this relational orientation), how architects saw their actions in the project influenced by the past, present or future (labelled as time orientation) and whether architects were oriented towards the profession or the market (labelled as point of reference).

Our analyses revealed that the 'what' included both the activities and responsibilities that architects tried to negotiate (i.e. content of role) and how architects saw these demarcated from the activities and responsibilities of other actors (i.e. boundary of role). For the 'how' we identified a number of specific boundary work practices that architects engaged in to negotiate their roles. We then carefully compared the individual role negotiation situations in projects with one another to single out the similarities and differences between them. Eventually, this led us to categorize them into three types of boundary work: 1) reinstating role boundaries, 2) bending role boundaries, and 3) pioneering role boundaries, which we will present and discuss in the next section.

§ 2.4 Findings

In this section, we describe the three types of boundary work (see Table 2.1). The three types are further detailed with the underlying beliefs that triggered architects to negotiate their roles in projects (why do they negotiate?), what they tried to accomplish with their negotiation (what do they negotiate?), and in which practices architects engaged during role negotiations (how do they negotiate?). In the following sections,

we provide an account of our findings and use extracts from our interviews to illustrate each type of boundary work in detail. The respondents are referred to as A1 to A33.

	TYPE 1: Reinstating role boundaries	TYPE 2: Bending role boundaries	TYPE 3: Pioneering role boundaries
Why do they negotiate?			
Perception of professional expertise	Undervaluation: expertise is not being valued	In flux: expertise is constantly changing	Generalizable: expertise is broadly applicable
Relational orientation	Proactive: professional is capable of influencing own role	Reactive: role of professional determined by other actors	Proactive: professional is able to recreate own role
Time orientation	Past-oriented: role negotiation guided by views of the past	Present-oriented: role negotiation based on evaluation of current situation	Future-oriented: role negotiation guided by future prospects
Point of reference	Profession	Market	Profession
What do they negotiate?			
Content of role	Return to established situation: activities and responsibilities in line with traditional role	Flexible: activities and responsibilities tailored to project demands	Break with established situation: activities and responsibilities redefined beyond traditional role
Boundary of role	Thick and segmenting: actors have clearly defined and demarcated roles	Thin and permeable: actors collaboratively define role boundaries	Thick and segmenting: actors (re)define clearly demarcated roles
How do they negotiate?			
Boundary work practices	– Demonstrating professional expertise – Pressuring the client to secure professional value – Challenging the collaboration structure	– Reframing activities – Investing in specific expertise	– Offering new activities – Building alternative collaborative structures

TABLE 2.1 Overview of types of boundary work

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§ 2.4.1 Type 1: Reinstating role boundaries

Why do they negotiate?

In the first type of boundary work, which we labelled 'reinstating role boundaries', architects tried to regain other project actors' appreciation for the architecture profession as it used to be. They aimed to convince clients that they were valuable for every construction project and for society at large. Role reinstating architects believed that their expertise was not being valued and aimed to counteract ongoing misperceptions of architectural work. One architect said:

It isn't a fast profession. It is a slow job, for which you need to take time and for which you just have to be properly paid (...). That's what is wrong today: people don't know anymore that it takes time and may be time-consuming. And it is my mission to make that clear again. (A12)

Respondents argued that they had to 'fight back' and 'rebel against' marginalized positions in projects to be granted the activities and responsibilities they felt that belonged to them and to retain autonomy over the design process. These phrases show how role reinstating architects were determined to prove their value to the outside world and to reclaim the traditional role that they aspired to. This group believed that architectural work involved much more than developing creative ideas and designs:

We are so much more than the designer. [Our work] is much more than just a pretty picture and some nice colours. We are fully engaged in the entire process, we have engineering knowledge and expertise in laws and regulations. We are very much price and planning conscious. (A5)

Respondents argued that they encountered difficulties proving that they still had the knowledge and skills to perform 'full services'. One architect argued that although they had clear added value beyond the design phase, it was often difficult to obtain a role in the engineering or construction phase of a project:

[...] that is something that you have to explain over and over again [the added value of architectural involvement beyond design] because you constantly encounter people that say 'well, that is not true! (A21)

When reinstating their role boundaries, architects were predominantly oriented towards the past. Role reinstating architects indicated that they had difficulties in

giving up the traditional aspects of their role. A powerful belief in the traditional knowledge domain and skills, that has always distinguished architects from other project actors, guided the architects in their quests to re-establish the definition of their profession and to reinstate the associated role.

What do they negotiate?

Architects who reinstated role boundaries believed that an architect's added value was particularly prominent when they were able to provide 'full services', including design work, engineering work and coordination of the design process. This group of architects did not want be involved in projects in which they would have a marginalized role, as they feared that this would prevent them from performing their job properly. One respondent explicated this by saying:

We don't want to be whores! [Laughing] We only do what we consider the right thing to do. (A12)

Role reinstating architects thus aimed to reclaim the comprehensive design and engineering activities that they were used to performing and considered it important that they could coordinate the entire design process. Respondents typically argued that the traditional role allowed them to serve the client in the best way possible. They explained that they needed to have control over the entire design process to make sure that the quality of the project would match the client's ambitions and their own professional standards. Architects who were reinstating role boundaries seemed strongly oriented towards creating clear demarcations between the architectural profession and other professions, based on an implicit hierarchy of project actors. For instance, the architect referred to a clear division of work between the architect and general contractor. He stated:

They [the client] tell you: 'it is like having a butcher inspecting the quality of his own meat [Dutch expression].' Well, that is just not the case at all. Because if meat is the product and the butcher is the one who makes it or the one who processes it, I'm neither one of them. I am the one who describes what quality standards the meat has to meet. And I check whether it complies. What the butchers make is actually the subject that I review, but I am not part of it. (A3)

They typically differentiated themselves from other actors in the project constellation by emphasizing their expert knowledge and skills as unique. Respondents felt that actors should all do what they are good at and believed that architects are the only ones

who are able to manage the design process and integrate all the different disciplines that are involved. One architect expressed this by saying:

[…] and every time I tell my clients: 'Allow people to do what that are good at, put them in the right role'. So if you are a centre forward, why should you play centre-back? That does not work at all. You will shoot the ball in the wrong direction. That's what's happening now in our field. (A5)

How do they negotiate?

Role reinstating architects tried to ensure that their value could not be overlooked by other project actors. They engaged in different boundary work practices that emphasised the value of their work and/or contrasted this value to the work of others. One architect said:

You have to find out where you can press the buttons. How can you become master of the construction process? […] You have to show that you are worth it. You just have to show it once, work hard, you must ensure that there is nothing open to critique. And then they [the client] are just very happy that you want to do it for them. (A12)

We found evidence of three boundary work practices in our data: 1) demonstrating professional expertise, 2) pressuring the client to secure professional value, and 3) challenging the collaboration structure.

Role reinstating architects sought to demonstrate professional expertise in the traditionally architectural tasks. They showed results of previously realized projects or performed tasks without official approval by the client and without any form of payment. One respondent, for instance, contrasted the results of projects in which his firm was responsible for the engineering with the results of projects in which this was not the case. By showing images of the two types of projects, the architect emphasised the value of his firm and actively pursued the engineering work:

We show [the client] that the projects in which we did it [engineering work] ourselves are of better quality than projects where it is outsourced. (A24)

Another architect hoped that performing tasks for free would gain the trust of her client and ultimately lead to the acquisition of more activities and responsibilities. Although she was only commissioned to design furniture for a building that was going to be renovated, she also helped the client to sort out technical problems during the process

by giving advice, making additional drawings and involving suitable partners. In doing so, she aimed to acquire a role in the engineering phase:

You first have to show them [other project actors] that they need you and that they can't back out [...] So I always let them know 'we did do this, but it is not included in our assignment. (A12)

In the end, the architect's efforts convinced the client to ask the architectural firm for the engineering work instead of another organization. The respondent said that the client and contractor were both wildly enthusiastic about the work of her firm:

They thought we were 'the last of the Mohicans' [Laughing], they didn't know that we still existed.

This suggests that other project actors are often unaware that some architects are still able to provide the traditional spectrum of services and underlines the necessity for architects to demonstrate that they are equipped to do this.

In other projects, architects were pressuring the client to secure their professional value. Although role reinstating architects sometimes agreed to less preferential roles in a project, they tried to reclaim their traditional role when they noticed that the project developed in a way that did not match their professional standards. The stories of our respondents revealed multiple situations in which architects put pressure on the client to secure their professional value. This may seem a desperate attempt to reclaim responsibilities, yet it was explained by respondents as a step that had to be taken to maintain their professional integrity. For example, one architect threatened to withdraw from a project as he considered this the only option left when his firm's ideas were constantly overruled and expertise was repeatedly called into question by another actor in the project:

[our expertise] was constantly called into question, while we know for sure that what we are doing was good and with the right intentions. And then we just said: 'Okay, it's very simple: either that project management agency is out, or we are out. (A19)

In a similar vein, role reinstating architects pressured their clients to commission them for 'full services' by raising their fee for the delivery of fewer services. For example, one architect said to his client:

If we can only make the preliminary design and final design, it will cost thirty percent more compared to when we can make everything. (A18)

We also found that architects were challenging the collaboration structure of the project by discussing the benefits of their involvement in a traditional role and the dangers of involving other actors for this role with their clients. For example, respondents specifically put forward their strengths:

So we do a lot of design, we will coordinate that, please let us do that, that is what we are familiar with and what we are most experienced in. (A11)

Respondents also pointed out to their clients that when a part of 'their' role would be performed by another actor, it would ultimately damage the project's end result or complicate the process leading up to it. One respondent made clear to his client that an elimination of the architect's engineering activities and early procurement of a contractor would lead to all kinds of process disruptions such as discussions, additional work, unexpected costs and delays:

I particularly pointed that [the risk] out to my client. […] And also mentioned 'this is what it means if we arrange the contract documents. Perhaps it takes a couple of weeks extra, but it also means [fewer risks] for the further course of the project. (A27).

This shows how architects challenged the collaboration structure of the project because they felt that actors were not playing the right part in the project. They tried to convince the client to alter the roles of actors to prevent that a non-optimal division of roles would ultimately lead to a decrease in quality.

The three boundary work practices show how architects tried to reinstate traditional role boundaries. Based on perceptions of how architectural work was conducted in the past, this group of architects used these practices in an attempt to reclaim what they thought of as their professional jurisdiction.

§ 2.4.2 Type 2: Bending role boundaries

Why do they negotiate?

In the second type of boundary work, which we labelled 'bending role boundaries', architects responded to ongoing market developments by anticipating or accepting changes in their professional roles. Role bending architects were convinced of their value as a professional group, but saw their added value as different for each project

and as continuously changing. They believed that their expertise had to change to keep up with the evolving society and construction industry in order to serve clients, users and society in the best way possible. One architect said:

We look at this development [the diminished role of architects] with great sorrow. But on the other hand, we also go along with it because you have to evolve. You can't remain an old-fashioned architect, that's impossible. (A17)

Architects in this group were convinced that further development of 'non-traditional' knowledge or skills would lead to increased benefits for clients or other stakeholders in projects. They believed that 'new' expertise was not only crucial to qualify for projects, it would also significantly enrich the added value that the architect would have in those projects. Respondents argued that the architectural profession has become 'too meaningless'. They recognized that other project actors are increasingly interested in non-design related aspects of the building process. In their projects, they tried to understand both the reasoning and goals of other involved actors and respond to these in the best way possible. Respondents argued that this requires 'constantly delivering other added value besides the design' and 'constantly stretching yourself'. They wanted to add to the traditional architect role to make sure that their professional work is still valued in the market:

If you don't attach a couple of hooks to it [the traditional architect work] that are embedded in a much more complex society, it won't be your turn that easily. (A6)

This quote illustrates how role bending architects wanted to expand their professional expertise to make sure that they would still be commissioned for projects and that they would remain of value as an individual professional, professional firm or entire profession. This group of architects feared that if others no longer saw the value of their work, they would one day be 'played out in the market'. Respondents seemed to accept that they were not in a position to define their own role boundaries within a specific project and largely went along with their clients' requirements. They used phrases such as 'the market eventually dictates' to express how they saw their work in each individual project as shaped by the wishes and demands of the client and other involved actors. We saw that the actions of role bending architects were mainly influenced by a strong orientation towards the present, in which the market served as their main point of reference.

What do they negotiate?

Role bending architects saw their own role as part of a larger puzzle that needed to be solved. They noticed that the former comprehensive role of the architect in a project was often not desired or possible anymore, because projects were undertaken on the basis of different forms of collaboration. Respondents in this group argued that in newer collaborative forms, such as public-private partnerships, some activities will be simply less often commissioned from architectural firms. They mentioned that their professional work would still include the preliminary design, final design and 'a bit of supervision', but that services like full engineering and project management are no longer obvious. Role bending architects were willing to perform altered roles when these would better fit the project. Respondents argued that being of value to clients 'starts with the willingness to be flexible'. They considered a flexible attitude towards the performance of roles key to stay in business:

So one time you do A and the next time you do B in a different assignment. (A4)

Hence, these architects pursued more fluid role demarcations as they wished or agreed to perform different roles in each project. They also saw the overall division of tasks as less segmented. They allowed other actors to perform parts of their roles or were willing to perform part of other actors' roles when this was specifically requested in the project, or when it was collaboratively defined as the best way to accomplish the project's aims. Role bending architects thus pursued less prestigious hierarchical positions in a collaboration and saw themselves as 'much more an interplay between different specialist advisors than one all-knowing genius that can do everything' (A6).

How do they negotiate?

Role bending architects were willing to go along with the requirements of the projects that they worked in, but always kept a critical attitude towards the work that they would perform. Their role needed to be in line with their professional values and beliefs. One respondent said:

[M]aybe it's flexibility connected to integrity. […] it has to do with who you are as a professional and how you want to work together with people. (A4)

We found two boundary work practices that architects used to bend their role boundaries: 1) reframing activities, and 2) investing in specific expertise.

By reframing their activities in the project, role bending architects aimed to serve the client and the project in the best way possible. When clients asked them to perform certain activities in projects, they took these questions very seriously and tried to find out if their activities would actually lead to the desired end result. Respondents explained how they tried to reveal the 'question behind the question' to find out which activities the client should have asked them to perform. They bended their role boundaries by offering these activities, but only for this specific project. Respondents particularly highlighted situations in which they offered the client additional activities. For example, one architect offered a rowing association counselling throughout the entire building process instead of merely the requested design, because she surmised that the association did not have the expertise to coordinate this process themselves:

I made an offer that included an entire process, […] I take the initiative to bend their request into my own terms of 'what do you in fact need? (A10)

We also found examples in which respondents deliberately decided to give up parts of their own role to achieve a satisfactory solution for the project. One example was given by a respondent who closely collaborated with a contractor in his project. The respondent explained how he proposed to make a concise technical specification together with the contractor instead of having sole responsibility over the delivery of a more detailed technical document. He took the reduction of his own firm's role in the project, resulting from this decision, as a necessary concession:

We rather collaborate with a contractor to write a really good technical specification together of which we all know: okay this is what we get. (A14)

This shows how the architect considered a document that was created in collaboration much more valuable than a document that was created by the architects themselves. It also highlights that role bending architects sometimes willingly gave up part of their remuneration or influence in a project when they believed that this would contribute to the quality of the process and/or the end result.

We found that architects were also bending their professional role boundaries by investing in specific expertise, because clients asked them to perform certain additional tasks or because they expected these requests to emerge soon. Such additional tasks, for instance, involved consultancy work to assist clients in the initial phases of project definition or workshops with users. Architectural firms invested in the knowledge of their own people or attracted people with specific knowledge and skills to perform these tasks in a project. For example, many architectural firms invested heavily in their Building Information Modelling (BIM) expertise. Whereas some firms only invested in BIM to stay in business, as many clients require BIM, other firms used

the technology to deliver different kinds of value to their clients. One respondent, for instance, argued that it is important to draw in 3D, but even more important to use the data to demonstrate and account for what they draw, especially in projects that are coordinated by contractors. The respondent wanted to be 'the best and most reliable Design and Build partner' and argued that he needed extensive BIM expertise to assist contractors in their calculations. He explained how he gained this role, by:

[...] knowing really well what building is, professionally. We've done that for more than 28 years now. [...] But also, just collaborate with contractors a lot, somehow we then are the natural partner for that because of that craftsmanship, but also because we invested and developed a lot around that BIM story. (A6)

This architect was convinced that new data management skills would enrich his existing professional expertise and help him to be a good and reliable professional partner in contemporary projects.

The two boundary work practices that architects used to bend their roles in projects show how architects responded to conflicts around untouched areas of work, the so called 'grey zones', and negotiated their role 'on the spot'.

§ 2.4.3 Type 3: Pioneering role boundaries

Why do they negotiate?

In the third type of boundary work, which we labelled 'pioneering role boundaries', architects engaged in practices that moved away from the status quo and thus opened up the traditional role boundaries. This group saw the profession as having been 'asleep' for a while and saw opportunities for architects to step off the beaten track. Respondents argued that they could regain control and have more impact by moving beyond established professional work and adopting a different mindset. As one respondent put it:

Our peers are, I guess, sort of scared to be more entrepreneurial or it is a missing quality in general. I'm not sure. They often say that architects should mainly focus on design activities, but with that kind of attitude we are, in my opinion, going to lose our market position completely. (A26)

Role pioneering architects believed that their qualities and skills are more broadly applicable than in the established roles of architects. One respondent stated:

We never felt good in the straightjacket into which the architect was forced. (A30)

The constraining template of traditional roles led this group of architects to explore and exploit new activities within projects. For these architects, engaging in entrepreneurial activities was accompanied by a strong desire to contribute to the overall good of the built environment. One architect, for instance, stated:

Personally, I believe that we should always ask ourselves in every assignment: 'Am I making a more pleasant environment, a liveable city or better building? Or am I only working on this project because it is an assignment? (A7)

By constantly questioning their own influence in each project they tried to look beyond the temporary needs of clients. They constructed a sense of themselves as valuable design professionals and actively engaged in other areas of service delivery in which they could make greater use of their competencies. Overall, role pioneering architects were purposefully stretching or breaking away from traditional role boundaries and were focused on redefining the profession. By reflecting on and stepping back from their project work, they visualized alternative practice domains and other roles for themselves and other actors. These architects were successful in colonizing such new positions in projects, which, over time and project by project, led to an expansion of their scope of work and new definitions of the architect's role.

What do they negotiate?

Role pioneering architects provided a wide range of activities and associated responsibilities in projects, all expanding on the traditional role. Respondents gave examples ranging from consultancy roles in city developments to coordinating the entire construction process, by taking over the work and responsibilities of the general contractor. These architects wanted to take ownership of processes that, in their opinion, were not functioning well: 'I really want to go far. I would prefer to do it all myself' (A15). Our respondents often mentioned that they were increasingly performing activities that 'have nothing to do with the architectural profession' but which can contribute to becoming a more valuable professional. This shows how pioneering architects saw the performance of new services or tasks as intrinsically linked to their architectural work. One architect was convinced that a product development approach and an active role in the project initiation phase enabled him to

design and deliver apartment buildings that addressed the needs of future owners. This required additional activities:

We do not only deliver a design, instead we provide a complete business plan including how to get people involved in the project and how to sell the project, how to make it customer-driven and how to connect various stakeholders. (A15)

This example shows how architects entered new domains of work by deploying 'odd' professional skills, such as sales skills. However, this often led to dilemmas around what constitutes appropriate professional conduct, illustrated in the following quote:

She [fellow architect] actually implied, by the tone of her voice, that I was good at selling my product. Probably at the cost of my design abilities. As if these things are two separate things! (A15)

Role pioneering architects experienced that the scope of their desired roles was not only contested within the professional community, it also required adaptation of other project actors. Therefore, the act of 'pioneering' role boundaries was often described by our respondents as a collective act that also involves other project actors. Architects explained that it was essential to redefine the roles of all actors to come to an optimal division of work. As one respondent said:

That established order, [the roles of] those construction companies, really obstruct movement in developments. I would like to discuss that. (A7)

This quote illustrates how role pioneering architects questioned and tried to redefine the demarcations between the roles of different project actors.

How do they negotiate?

Pioneering professional role boundaries was manifested in two boundary work practices: 1) offering new activities and 2) building alternative collaborative structures.

Architects pioneered role boundaries by offering new activities that they tried to further develop into projects or integrate in their projects. These 'new' activities were performed regardless of any remuneration or the opinion of other actors, because architects strongly believed that these activities represented the future of their work and a way to remain of value in the field. Respondents gave examples of launching BIM related services, developing innovative service contracts for clients or looking for locations and investors to develop projects, so they could claim a bigger role in the

actual development of these projects. What characterized these activities is that they were either new to the profession or new to the field of construction. For instance, one respondent initiated all kinds of activities to get engaged in discussions with the municipality and other influential actors, such as developers and financers, because she strongly believed that current forms of collaboration did not enable cities to function well and she wished to address these issues:

We then made a magazine that sort of gave birth to the unsolicited advice for the city. […] We made plans and distributed those plans. (…) what we've done with that [referring to the project] is a form of activism. (A7)

This architect explained how she turned unsolicited advice into an unbidden project. Through interfering with the development of an area, namely a building, they were able to obtain an architectural project and consequently improve the built environment. This example is illustrative for role pioneering architects, who expanded their boundaries by offering new activities.

We also found that pioneering architects were building alternative collaborative structures to break away from traditional role boundaries. They proactively reorganized the roles of actors in the projects that they were involved in to make sure not only that the collaboration would be beneficial for all actors involved, but would also be more in line with contemporary society, and ultimately contribute to that society. One architect explained how he set up an entirely new BIM collaboration for projects:

Actually, we set it up. We organized weekly meetings. Made sure that we communicated with each other. Made appointments for that. Yes, we took matters into our own hands. (A1)

Another architect went against the traditional price-based approach for commissioning a general contractor as he considered this approach an obstruction to innovation in projects. He argued that contractors offer their services for the lowest price possible to acquire a project, but then have to 'squeeze out' subcontractors, which obstructs innovation and decreases the quality of the project. Therefore, he offered the client an alternative way of organizing the project by replacing the general contractor in the process. This did not only create a new role for the architectural firm, it also changed the role of the subcontractors, who were given more responsibilities and were in direct contact with the architect.

In a traditional project delivery, a main contractor is shielding the interaction between architects and clients and subcontractors. So what we've said is: 'No, we want to be at the same table with clients and subcontractors and share expertise with each other. (A2)

Another architect built an entirely new collaboration structure for large-scale renovations of social housing:

We noticed that [the budget] was so limited that we radically had to turn that around. So we chose a completely different form of collaboration and also took away the initiative from the housing corporation. (A22)

Although other respondents were not as extreme, they also gave examples in which they used their long-term relationship with the client to recreate the role structure together. In a few of these examples, building alternative collaborative structures allowed role pioneering architects to allocate themselves a more influential role in projects.

In sum, role pioneering architects used boundary work practices that had, over time, more macro-level effects, as they deliberately tried to reconstruct or break away from their traditional architectural roles.

§ 2.5 Discussion

In order to examine how professionals deal with threats of marginalization, we studied how actors negotiate their professional work in inter-organizational projects (IOPs). The dynamics and temporality involved in IOPs render the negotiation of work particularly complex, especially since formerly established role structures in these projects have become increasingly unstable. Our analysis revealed three types of boundary work that professionals engaged in to negotiate their roles in IOPs in an attempt to reconcile project demands with professional values and beliefs: reinstating role boundaries, bending role boundaries and pioneering role boundaries. These types show how professionals may frame the threat of marginalization differently depending on their assumptions of what constitutes professional work. By unpacking how these various views act as resources for the role negotiations of professionals, we underline that the content of professional work is inconclusive and provides room for interpretation even among members of a profession (e.g. Vough et al., 2013).

§ 2.5.1 Theoretical contributions

Our study has three important contributions. First, we contribute to the literature on boundary work by professionals. By identifying the three boundary work types 'reinstating role boundaries', 'bending role boundaries' and 'pioneering role boundaries', and unravelling the underlying characteristics and mechanisms of these types of boundary work, our study presents a more nuanced view on boundary work by professionals. Bending responses show that professionals do not only engage in boundary work to maintain (e.g. Gray et al., 2011) or change (e.g. Reay et al., 2006) their practice domains, but may also strategically reside between these two opposing sides. In some projects, professionals may compromise for more traditional roles while in other situations they might accept alterations in their work. These flexible responses to threats of marginalization have, so far, been underexposed in literature on boundary work of professionals and show that studying boundary work in IOP settings can provide insights that are likely to be overlooked in more stable work settings. Whereas role reinstating and role pioneering professionals particularly aim for clear demarcations between professional work and try to (re)gain professional autonomy in a particular domain, role bending professionals tend to see less hierarchical divisions between disciplines and consider more flexible role boundaries essential to meet project/client demands. This suggests that professionals have different views on the level of professional autonomy that is appropriate (Vough et al., 2013). Our study also adds to the work of Reay et al. (2017), who investigated role change in highly established settings and found that a collective process of reinterpreting guiding logics was particularly important for role change to occur. We show that role reinstating and role pioneering professionals both attempt to have more influence in the way their role evolves and seek to 'guide' the collective reinterpretation process, by actively confronting other project actors with their own ideas of how change should precisely occur. While role reinstating professionals explained, and in some cases demonstrated, their work and value to others to respond to threats of marginalization, role pioneering professionals went beyond these temporary responses and actively tried to reconstruct their professional role. This shows that although role change can be orchestrated by others (Reay et al., 2017) and is enabled or constrained by the institutional environment (Chreim et al., 2007; Goodrick and Reay, 2010; Greenwood et al., 2002), professionals may follow their own routes regardless of the contextual conditions in which their work is embedded.

Second, we contribute to the literature on professional collaboration in IOPs (Jones and Lichtenstein, 2008). Research in this area has mainly cast light on how stability is created and maintained by means of established and stable structures such as role systems to counterbalance the idiosyncratic nature of individual IOPs (Bechky, 2006;

Van Marrewijk et al., 2016). Role negotiations then take place in a specific pre-existing structural context, which is assumed to have become stabilized. Our study shows that these structural contexts are more dynamic and are significantly influenced by boundary work of professions. In negotiations, when roles are claimed or contested, professionals also oppose positions of other actors in the IOP. Their boundary work practices, invoked by past, present or future orientations, may, over time, transform the overall role structure.

Finally, our study contributes to the literature on professions by engaging in the ongoing debate on changing professionalism (e.g. Goodrick and Reay, 2010; Noordegraaf, 2015; Reay et al., 2017). In addition to literature that has particularly focused on organizational implications of changing contexts such as increased managerialism and hybridity (Noordegraaf, 2011, 2015), we particularly focus on the implications for professional work in inter-organizational collaborations. Besides showing how contextual changes impact established roles and role negotiations of professionals in IOPs, we also show how they trigger various forms of boundary work and thereby contribute to the evolution of professions. We provide insights into how professionals, when negotiating professional work in complex, inter-organizational settings, simultaneously maintain their profession roles through reinstating professional boundaries, enable incremental role change by bending role boundaries, and fuel radical role change by pioneering role boundaries. This suggests the existence of different 'subgroups' in a profession (Diefenbach and Sillince, 2011; Fitzgerald and Teal, 2004). Threats of marginalization seem to heighten already existing distinctions between professionals, including aspirations for different directions of professional evolution. Although it has already been addressed that especially neo-professions have rather fluid boundaries that open up entrepreneurial space (Reihlen and Werr, 2012), we show that diversification is also topical for more established professions. Based on the findings of our study one could argue that more homogenous professions, such as the architectural profession, may also become more diverse and fragmented (Saks, 2015).

§ 2.5.2 Practical implications

Our study has a number of practical implications. First, by showing the bigger picture of negotiating professional work in inter-organizational settings, our study helps practitioners to deal with external dynamics that challenge professional roles. The strong distinction between the three types of boundary work suggests that to (re)claim desired roles in IOPs, professionals need to be aware of what they aim for and how

they wish to pursue their aims. In particular, our findings provide a variety of tactics that professionals could engage in to take charge of their own future. In doing so, they also need to be sensitive to the enabling and constraining factors of the project and its surroundings in order to respond in an appropriate manner. To successfully create and capture value in the collaboration with other actors, professionals need to identify whether their professional values and beliefs sufficiently match the conditions of the context in which this work will be performed.

Secondly, our study also provides guidance to professional service firms (PSFs) operating in IOPs. The findings indicate that reinstating professionals wish to perform similar, traditional roles in different projects and that they need these roles to remain relatively stable over time. Reinstating professionals thus need to ensure that they are able to get across the value of their 'traditional' professional role when this value is not recognized or not agreed upon by other actors. To prove their professional expertise and autonomy, PSFs could potentially benefit from having a solid base of 'grey hair' professionals (Coxe et al., 2005), who are able to provide professional work with a consistent quality, and complementing these with people that are able to 'sell' the services in contexts where they are contested. For bending professionals, tailoring the activities and responsibilities to the specific demands of each individual project, requires organizational flexibility. PSFs need people with diverse skills to be able to respond to different kinds of requests and need to be able to attract these people on a temporary basis. This raises issues of firm sizes and networked forms of collaboration between multiple firms. Finally, pioneering professionals focus on conquering new grounds. To succeed in doing this it is important that people in the firm should share similar views on the contents of their work and the way this can be performed. This implies that PSFs need to construct organizational identities that go beyond the 'traditional' professional identity in ways that include and convince both organizational members and other actors in the field.

§ 2.5.3 Boundary conditions and directions for future research

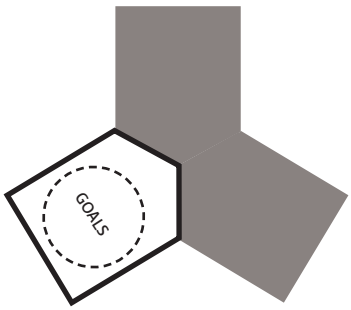
Our study has several boundary conditions and limitations that could be addressed in future research. First, although we believe that our findings indicate that even within the same profession people may engage in different types of boundary work in IOPs, we cannot make direct claims about other professions or occupations. We therefore strongly encourage research that explores the negotiation of professional roles in other professional fields.

Secondly, respondents in our study sometimes hinted towards the tensions they encountered as a member of the organization, project and profession. Additional research could further explore how these tensions might influence architects or other professionals needing to balance conflicting targets, when they enact their professional roles.

Thirdly, although we believe that collecting data on the broad scope of architectural work via interviews was essential to obtain a broad perspective on the responses of one professional community, it might also be interesting to collect longitudinal observations of interactions between architects and other actors as they negotiate their project roles. Since our methodological strategy did not allow for in-depth examination of the projects, we cannot judge the relative success of each negotiation strategy. Future studies that add processual data will expand our findings by shedding light on how professionals engage in boundary work in an IOP on a day-to-day basis. In adopting a process approach (Langley, 1999), research could further examine how these boundary strategies play out over time (Covaleski et al., 2003), but also 'zoom out' and show if these multiformity of responses leads to a redefinition of the profession in the long run.

TOC

3 Trade-offs in the value capture of architectural firms: the significance of professional value



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- FuturA Living Lab #6, 27 October 2015, Westzaan, the Netherlands.
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Abstract

Architectural firms often have difficulty generating profit from their services as they pursue not only commercial but also professional goals. These goals frequently conflict and have to be balanced during the process of value creation and value capture. So far, literature has focused on the interaction between the perceived use value for the customer and the fee that is paid to the firm. To better understand how professional service firms realize their organizational targets, professional value needs to be included. In this study, in-depth interviews with the architects and clients of nine housing projects provide insight into the content and process of value capture by architectural firms. The data reveal strategies by which architects tried to maximize the capture of professional value at the expense of profit or sometimes even their clients' perceived use value. These trade-offs in value capture confirm the importance of professional value when studying value creation and capture in a professional service context. This paper provides an understanding of how architectural firms struggle to balance competing goals and highlights the importance of well-managed value capture.

Keywords

Architectural management, collaboration, professional service firms, value capture, value creation.

§ 3.1 Introduction

The business environment for architecture, engineering and construction firms is changing rapidly in response to global societal changes (Duffy and Rabeneck, 2013). Organizations have to deal with an industry that is highly diversified and extremely competitive. New governance structures have led to changes in industry roles and long established business models are questioned regarding their effectiveness. The economic recession and the substantial market changes in the last few years have forced organizations to reassess the ways in which they create and capture value.

Fuelled by the ongoing changes, both professionalism and the way that professionals are perceived are evolving (Hughes and Hughes, 2013). The architecture profession has even become subjected to potential erosion (Cohen et al., 2005). While architectural firms are challenged to respond adequately (e.g. Jamieson, 2012; Schoorl, 2011),

they are still mainly concerned with handling the pressures of the recent economic downturn. As Duffy and Rabeneck (2013, p. 120) argue, architects have so far been 'remarkably unforthcoming about the roles they might profitably play'. Recent studies show that the architectural field is gradually recovering (Architects' Council of Europe, 2015). Although the turnover of Dutch architectural firms stabilized in 2013, 39% of the firms still remain unprofitable (Vogels, 2015). To stay competitive, architectural firms need to find ways to deliver added value to their clients in a more profitable way.

Like other professional service firms (PSFs) (Løwendahl, 2005), architectural firms face tensions between their organizational goals. Whereas firms are driven by a professional ethos to provide service quality, they follow organizational logics to make money. This duality especially characterizes creative professionals (DeFillippi et al., 2007) and is an example of the many paradoxes with which architects are regularly confronted (Manzoni et al., 2012). Paradoxes cannot be resolved: they need to be accepted and handled consciously to enable organizational sustainability (Smith and Lewis, 2011). Hence, successfully attending to competing goals is critical for architectural practices (Manzoni et al., 2012), PSFs (Noordegraaf, 2015) and the growing number of 'hybrid' organizations that are dealing with both commercial and societal goals (Smith and Lewis, 2011).

To better understand why architectural firms experience difficulties making profit, more information is needed about how these firms actually capture value for organizational purposes. Bowman and Ambrosini (2000) build on the classic distinction between use value and exchange value to address value at the organizational level of analysis. Use value refers to the customer's subjective perception of the qualities or utility of a product or service. It represents the purpose of organizational value creation (i.e. what the firm intends to deliver to the customer). Exchange value is the price paid at the moment of exchange and represents the purpose of organizational value capture (i.e. what the firm intends to appropriate to guarantee organizational survival). To understand value capture (and value creation) in the context of professional service delivery, we propose a third dimension of value, namely professional value. After all, PSFs are not only interested in earning money by delivering customer use value. They also pursue other goals such as reputation (Boutinot et al., 2015), individual talent and motivation (Canavan et al., 2013), and knowledge development (Løwendahl et al., 2001). When discussing organizational value capture from the viewpoints of traditional businesses and entrepreneurial firms, previous literature, however, remained focused on monetary aspects (e.g. Lepak et al., 2007; Pitelis and Teece, 2009).

In this study, we extend the theoretical distinction between use value and exchange value by adding professional value as a third value dimension to study organizational value capture in a professional service context. We specifically look at the service

delivery of architectural firms and address the following research question: how do architectural firms capture value for organizational purposes in the project-based interaction with their client? To answer this question, we selected nine cases of large housing projects in the Netherlands and conducted semi-structured interviews with both architects and clients. While acknowledging the existence of a use value, an exchange value and a professional value dimension, we shed light on architectural firms' value capture goals, strategies and trade-offs. With this, we contribute to the theory development on organizational value capture from the perspective of creative service professionals and their customers in a business-to-business relationship.

The paper is organized as follows. First, we discuss the theoretical background. We introduce the concepts of organizational value, value creation and value capture, and present a theoretical framework to understand value creation and value capture in the area of professional service delivery. We then present our methods, including research approach and sample, data collection and data analysis. Next, we present an overview of value capture by architectural firms. Our findings are grouped according to the value capture goals that were pursued by architectural firms (the content of value capture) and the value capture strategies that were used to actually capture value (the process of value capture). Our analysis of the findings results in an overview of trade-offs in value capture, on which we reflect in the discussion section. In this section, we also provide implications and directions for future research based on the identified constraints and opportunities within the value capture process of architectural firms. We conclude that firms prioritize the capture of professional value over their organizational profit and sometimes even their client's use value, both in the service offer and during service delivery.

§ 3.2 Theoretical background

§ 3.2.1 The concepts of organizational value, value creation and value capture

Value is at the core of how organizations work. Organizations create value in many different ways and for many different targets (Lepak et al., 2007). Organizational value entails the 'activities, products and services engendered by organizations in market economies, which are perceived to be worthy by potential beneficiaries such

as consumers, suppliers or competitors' (Pitelis, 2009, p. 1118). As each individual responds to different logics of worth, perceptions of what is valuable differ from person to person (Boltanski and Thévenot, 2006). Moreover, to assess the worthiness of a subject matter, it is necessary to understand its meaning in the social or cultural context in which it is embedded (Lepak et al., 2007). Hence, organizational value is characterized by a highly subjective and context-specific nature.

Building on the classic distinction between use value and exchange value, Bowman and Ambrosini (2000) emphasize the existence of two different value dimensions at the organizational level of analysis, namely use value – which refers to the customer's subjective perception of the qualities or utility of activities, products or services – and exchange value, which refers to the price that is paid by the customer at the moment of exchange (ibid.). Bowman and Ambrosini (ibid.) argue that organizations will not know the monetary worth of the created use value until it is exchanged. At the time of sale, the customer assesses the potential use value and determines the price he is willing to pay. Bowman and Ambrosini's theoretical framework proved very helpful in studying value creation and value capture, and has also been adopted by scholars looking beyond the organizational level (e.g. Lepak et al., 2007).

The creation and capture of value by organizations has been studied in several research fields. Marketing scholars, for instance, specifically focus on value co-creation from a customer perspective (e.g. Grönroos and Ravald, 2011) or a 'service system' perspective (Vargo et al., 2008). In strategic management and organization studies, the focus is on understanding firm strategies and performance from a firm's perspective (e.g. Pitelis, 2009). Given the variety of disciplines concerned with value creation and value capture, it is not surprising that the theoretical concepts are subject to a considerable amount of confusion. Many scholars either focus only on value creation or do not distinguish between the two concepts at all. Researchers of the resource-based view, for instance, use the term value creation to refer to firm profitability (Makadok and Coff, 2002). We follow the stream of thought developed by Bowman and Ambrosini (2000), Lepak et al. (2007) and Pitelis (2009) and regard value creation and value capture as two distinct concepts.

Value creation is dependent on 'the relative amount of value that is subjectively realized by a target user (or buyer) who is the focus of value creation' and who is willing to exchange a monetary amount for the value received (Lepak et al., 2007, p. 182). Lepak et al. (ibid.) suggest that the target user's (or buyer's) subjective evaluation of the novelty and appropriateness involved will determine the level of value that can be created. Value capture is used to describe a firm's ability to earn revenues (Teece, 2010) or to make profit. Regarding the latter, Bowman and Ambrosini (2000, p. 9), define value capture as 'the realization of exchange value [...] determined by

the bargaining relationships between buyers and sellers'. In a later contribution, the capture of value in knowledge-intensive firms such as PSFs is described as 'a function of a bargaining process between the actors involved, be they customers, employees or suppliers' (Bowman and Swart, 2007, p. 492).

The acknowledgement of value creation and value capture as distinct but interrelated processes is gaining more currency in organization studies and strategic management literature. As value is always co-created (a notion that both management and marketing scholars agree on (Pitelis and Teece, 2009; Vargo et al., 2008), Lepak et al. (2007) argue that it is important to regard value creation and value capture as different processes. The value creation source is often not able to capture or retain the entire amount of value that was created, but either loses or has to share this value with other stakeholders (ibid.). Pitelis (2009) further elaborates by stating that sometimes trade-offs between value creation and value capture are likely to be made and that managing these trade-offs is essential for firm strategy and performance. Hence, a clear distinction between the two concepts is necessary.

§ 3.2.2 Value capture by professional service firms

Making profit is the primary objective of for-profit firms (Pitelis and Teece, 2009) and is key to their survival (Shafer et al., 2005). Studying the management of traditional business firms or entrepreneurial firms, important contributions on organizational value capture in the fields of strategic management and organization studies pay attention only to firm profitability (e.g. Baden-Fuller and Mangematin, 2013; Zott and Amit, 2007). Pitelis (2009), for example, discusses four generic value creation determinants and corresponding strategies that can help firms to maximize their profit. Lepak et al. (2007) explain how value can be captured at the organizational level by using concepts of competition and isolating mechanisms.

Research on value capture by organizations in knowledge-intensive and professional service contexts does not seem to transcend the monetary dimension of value either. Bowman and Swart (2007), for instance, examine rent generation and rent appropriation in knowledge-based industries from a focus on 'embedded capital'. However, for PSFs facing both commercial and professional pressures (Greenwood et al., 2005), profit is not the only value dimension of interest to the firm. Extending on the work of Bowman and Ambrosini (2000), we propose a third dimension of value, which we believe is helpful and even necessary to understand value creation and value capture in a professional service context. We use the term 'professional value'

to refer to the qualities or utility of an activity, product or service perceived by PSFs in relation to their needs, for example the aesthetics of a realized building or the expertise developed from the involvement in a certain type of project.

Literature on PSFs supports the idea of a professional value dimension at the organizational level of analysis. PSFs are knowledge-intensive firms that are hired by their clients for their expertise and skills (Løwendahl, 2005). Architectural firms belong to the category of 'classic' PSFs. Together with law and accounting firms, they possess the highest professional service intensity due to their low capital intensity and professionalized workforce (Von Nordenflycht, 2010). PSFs pursue service quality to satisfy their clients. But they are also dependent on service quality for their own organizational continuity (Tam, 2004). It helps them to build or maintain a professional reputation, which can be considered a key organizational resource (Boutinot et al., 2015). Reputation is especially important to PSFs because of the intangibility of the service and the importance of the individual professionals (Greenwood et al., 2005). As Greenwood et al. mention, a strong reputation helps firms to attract skilled employees and may help the firm to reduce its marketing costs or increase its fees. Clients actively search for firms they want to work with and they are willing to pay for a 'brand name'. As service quality largely depends on the firm's employees (Parasuraman et al., 1985) and the workforce is the main source of competitive advantage for PSFs (Hitt et al., 2001), keeping partners and employees satisfied is another organizational driver towards success and survival. Thus, besides profitability, PSFs have other organizational goals they need to attend to in order to stay in business.

When collaborating in a project, architectural firms and client organizations negotiate the content of the architect's service delivery and the corresponding fee. In this stage, which we refer to as 'the service offer', perceived customer use value and perceived professional value are 'qualified' and translated into exchange value (Callon et al., 2002; Helgesson and Kjellberg, 2013). Monetarizing subjective perceptions is always difficult since something that is valuable to one person, might be completely worthless to another person. In creative service delivery, this difficulty is further increased because the actual outcome remains highly uncertain and unpredictable until the end of the interaction between firm and customer (Hutter, 2011). Hence, during the service delivery, perceived use value and perceived professional value continue to evolve.

In this study, we use the distinction between use value, exchange value and professional value to develop our theoretical understanding of the content and process of value capture by architectural firms. Figure 3.1 presents an overview of our theoretical framework. The value creation of a PSF involves the creation of use value for the customer and the creation of professional value for the PSF. The value capture of

a PSF involves the firm's appropriation of professional value and exchange value. Use value is captured by the customer.

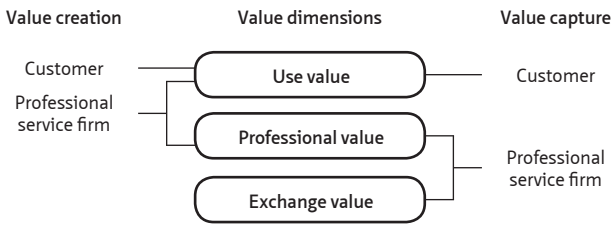


FIGURE 3.1 Theoretical framework of value creation and value capture in professional service delivery

§ 3.3 Methods

§ 3.3.1 Research approach and sample

To gain a profound understanding of how architectural service firms capture value, an inductive qualitative approach was chosen (Miles and Huberman, 1994). Twenty semi-structured interviews from nine cases of collaborating architects and clients were used to analyse what values architectural firms aimed to capture and how they pursued their goals in the interaction with their clients. The selected research approach and method are especially useful to gain a deeper understanding of how individuals, workgroups, organizations and institutions work in a context that is socially constructed (Gioia et al., 2013). They take into account the dynamics that are involved and allow new concepts to emerge.

The interviewees were chosen from large housing projects that were realized in the Netherlands in 2013 or 2014. New housing projects are responsible for 49% of the net turnover of Dutch architectural firms (Vogels, 2015). They represent an important focus for a large number of architectural firms and client organizations. The interview

sample consists of representatives of 9 Dutch architectural firms that have between 15 and 120 people; all the firms have design at the core of their business model. Three types of client organizations were selected: three developing contractors, three housing corporations and three project developers, all of which are very active in the development of large housing projects. One of the client organizations was only partially involved in the respective project. This firm (a developing contractor) took over the architect's contract half way through the project. In this particular case, respondents from both client organizations were interviewed. Respondents from the architectural firms were the architects who had been in charge of the projects. They were involved in the firms as either partners or employees. The respondents from the client organizations were the responsible project leaders or directors. In each project, the architect and client representative had a direct relationship with each other during the interaction process. The architect respondents are referred to as A1–A9, the client respondents as C1–C9. Table 3.1 presents an overview of the sample.

RESPONDENT	TYPE OF RESPONDENT	TYPE OF ORGANIZATION
A1, A3	Architect	Architectural firm with 10–20 people
A2, A5, A6	Architect	Architectural firm with 20–40 people
A4, A7, A8a-b, A9	Architect	Architectural firm with 40+ people
C1, C4a-b, C7	Project leader or director	Developing contractor
C2, C5, C8	Project leader or director	Housing corporation
C3, C6, C9	Project leader or director	Project developer

TABLE 3.1 Overview of respondents

§ 3.3.2 Data collection

For each specific case, the architect was interviewed before the client interview, in order to cross-validate findings and to follow up on the architect's responses. All interviews were conducted by the first author. A semi-structured interview protocol was used to address different topics. First, some introductory questions were asked to create a comfortable setting in which respondents were encouraged to open up about the personal and sometimes sensitive subject of value capture. Respondents were then questioned about their organizational value capture goals and their pursuing strategies. Finally, they were asked to reflect on the value creation and capture process. Each interview lasted approximately 90 min. Archival materials were collected to

prepare for the interviews and to expand the understanding of the organizational context. All interviews were audiotaped and transcribed verbatim. The transcripts were checked by the respondents and their suggestions for changes (these only concerned personal names) were implemented. This resulted in 554 pages of interview data. The architect interviews were used to identify the value capture goals and strategies of architectural firms. The client interviews served to reinforce, question or elaborate on the findings from the architect interviews.

§ 3.3.3 Data analysis

Inspired by the methodology described by Gioia et al. (2013), four data analysis steps were used to enhance qualitative rigour in the inductive research. In the first step, the authors and two fellow researchers used the technique of context mapping (Sleeswijk Visser et al., 2005) to derive examples of targeted values and examples of pursuing strategies (informant-centric 1st-order concepts) from the architect interviews and categorize them into value capture goals and value capture strategies (researcher-centric 2nd-order themes). Iterating between empirical data and literature, the goals and strategies were linked to the overarching value dimensions use value, professional value and exchange value. In the second step, the entire data-set was examined systematically with the use of software program MAXQDA as a supporting tool. The initial analysis was further refined and complemented with all underlying concepts from the data. The first and second steps of the analysis resulted in an overview of the content and process of value capture by architectural firms. In the third step, the analysis in MAXQDA was used to identify trade-offs between the capture of different value dimensions. Explanations for and additional background to these trade-offs were derived from both architect and client interviews. The fourth and final step consisted of a consolidation workshop with practitioners, all of whom are involved in large housing projects. The workshop participants included four architect directors, two client representatives (a developing contractor and a client from a housing corporation) and a representative from the Royal Institute of Dutch Architects. During the workshop, the value capture trade-offs derived from the interviews were presented in the form of propositions and discussed within the group of participants. Both architects and clients confirmed that the trade-offs are indeed an important issue in practice. Trade-offs were supported from both perspectives with arguments similar to the ones that we found in the interview data.

§ 3.4 Findings

§ 3.4.1 The content of value capture: goals of architectural firms

Based on specific examples of value given by respondents, we found four overarching value capture goals of architectural firms that underlie a professional value dimension and an exchange value dimension. The goals and overarching value dimensions represent the content of value capture by architectural firms (see Table 3.2). The organizational value capture goals 'reputation', 'development' and 'work pleasure' explain the architectural service delivery's worth to the firm in terms of quality or utility. These goals underlie the professional value dimension. The value capture goal 'money' is related to the architect's fee. It underlies the exchange value dimension, which explains the architectural service delivery's monetary worth to the firm.

Regarding the capture of professional value, architectural firms engaged in projects to develop or maintain a reputation in the field. They aimed to achieve a certain prestige and a high level of project quality. A7 said that his firm was automatically chosen by clients because of its prestige within the market: it has a solid reputation based on the delivery of high-quality projects and is appreciated by clients because of its way of working. Clients also mentioned the importance of the architect's reputation. All client organizations selected architectural firms on the basis of their market reputation or expert reputation. For instance, the organization of respondent C6 approached this particular architect because the firm was well known to and appreciated by the municipality concerned. All architect respondents considered project quality an important goal. They pursued the highest quality possible to strengthen their reputation. In the interviews, project quality was often elaborated in terms of, for example, 'good product', 'sustainable materials' and 'well-detailed'.

Second, architects aimed to further develop their organizations. They wanted to acquire knowledge, develop an increased competitive advantage, and aimed to innovate or develop a commercial relationship with their clients. A1, for example, initiated a new form of collaboration with his client. He said that he wanted to learn from it and intended to use it as 'a formula' to repeat a next time. A2 said he was always on the lookout for new kinds of services to deliver. He strove to increase his firm's competitive advantage by anticipating the desires of clients. Although his comment was not directly related to the case that was the subject of the interview, A8a said that his firm

was trying to 'keep up with the vanguard regarding BIM'. They seized opportunities to further develop their BIM capabilities to stay competitive.

Third, architectural firms pursued work pleasure. Respondents said that their work had to generate joy, needed to be appropriate to the organization and its people, and was expected to deliver a sense of appreciation. Several architects engaged only in projects that were 'fun' to work on. A6 said that the 'fun' part was their main concern. For him and the other partners, it was not about the number of projects or the growth of the organization. They 'did not choose their occupation to keep a business with so many people going. That does not interest us at all'. A4 was also very concerned with the work pleasure involved in service delivery. He explained that when a project no longer suited his employees, his firm would 'simply resign from the project'. He gave an example in which one of the architects was caught up in the tussles between different stakeholders: 'Two days ago I said to her "Listen, if it continues like this we're just going to stop". [...] You can't make [your] people unhappy, can you?' The same respondent also mentioned appreciation as an important aspect of work pleasure. He wanted to get compliments from the people he designed for. In an ideal situation, the work is appreciated by both the paying customer and the user. Although A4 believed that client satisfaction could lead to future work, he was especially interested in compliments from users. These made him feel much more honoured, as a user actually inhabits the project. His argument, which was formulated in similar ways by all other architects, shows that architectural firms often seek user satisfaction or to make a contribution to society. These matters are directly related to the core of the architect's job and his work pleasure.

Finally, architects wanted to capture money to generate income and make profit. All architects agreed that their businesses were aimed at acquiring projects to earn a living and guarantee organizational continuity. A8a stated it as his firm's 'main goal from a business perspective'. Nine of the 10 architects did not explicitly mention profit as an important value to pursue. A1, however, said: 'I [...] have to admit that you do not start a firm unless you want to make profit. It is almost the single reason to start a company'. A4 even stated that profit is not necessary to run a successful architectural office: they only needed to keep their people (and themselves) in work and pay the expenses (including necessary investments). 'Everything on top is nothing but nice'.

VALUE DIMENSIONS	VALUE CAPTURE GOALS	EXAMPLES OF VALUE GIVEN BY ARCHITECT RESPONDENTS
Professional value	Reputation	**Prestige**: 'The big advantage is that you have prestige in the market [...] which allows you to automatically select clients' (A7) **Project quality**: 'You score new projects by delivering simply beautiful projects' (A4) ...
	Development	**Knowledge**: 'That kind of building, I would like to learn from that. That's fun too.' (A1) **Competitive advantage**: 'I just happen to see the opportunities that others don't see. And that generates added value'. (A2) **Innovation**: 'We're explicitly trying to keep up with the vanguard regarding BIM' (A8a) **Commercial relationship**: 'If this works, we'll have a formula and I'd like to repeat it again' (A1) ...
	Work pleasure	**Joy**: 'Our main concern is that the work is fun' (A6) **Appropriateness:** 'It just needs to suit us and our people' (A4) **Appreciation**: 'That you get compliments from the people you made it for' (A4) ...
Exchange value	Money	**Income:** 'The main goal from a business perspective is, of course, to acquire that project [...] To earn money so that we can keep working [...]' (A8a) **Profit**: 'You don't start a company if you don't want to make profit' (A1) ...

TABLE 3.2 Value capture goals of architectural firms

§ 3.4.2 The process of value capture: strategies of architectural firms

The service offer: selling potential use value

When offering their services for the project, architectural firms used various strategies to convince the client of their service's potential use value and to come to an agreement on the corresponding exchange value. Firms largely embedded professional value in their service offers. Strategies that were used to agree on the service offer showed (1) how firms tried to create both potential use value for their client (as well as for users and society) and potential professional value for their own firm; and (2) how firms tried to maximize exchange value. Some of the strategies reveal that potential professional value was prioritized over exchange value in the service offer.

Proposing potential use value

Respondents argued that targeting potential use value within the service offer often involved tensions. The requirements of client organizations were not always clear, making it difficult to anticipate the desired or required use value. Furthermore, actors sometimes had different opinions about what was the best thing to do.

Both architects and clients mentioned the strategy of discussing goals as a way to ease tensions. Because of their design approach, architects are able to help clients examine their project's possibilities or restrictions. In this way, potential use value can be 'predicted' much more accurately. In three of the cases, the architectural firm helped the client to acquire the project or to make the project feasible. Because of this early interaction, architects and client were aiming for the same goals.

Moreover, architectural firms used the strategy of offering unpaid services to highlight the potential use value of their service from a client's, a user's and/or societal perspective. Architects hoped that these unpaid services would convince the client organization of their firm's added value and thus guarantee their involvement in a project. A2, for example, had started working on a design without being asked to do so and did not receive any payment for this work. He believed that the existing design (for which a building permit had already been granted) did not sufficiently accord with the potential inhabitants and the surrounding area. He explained it as his organization's key value creation driver to make something better. By increasing the value for user and society, this architect hoped to generate work that was also interesting to his firm in terms of reputation. By proposing potential use value from a multi-stakeholder perspective, the architectural firm implicitly targeted professional value, which they aimed to capture once they were involved in the project. His client argued that because of the importance of the location, the municipality was indeed receptive to an ambitious architect and the client organization did not see any reason why they themselves would be against it.

Another strategy used by architectural firms in the service offer, involved offering non-profitable services. In case 1, the architect convinced his client (a developing contractor) that they needed to create an extraordinary, sustainable building and proposed that they both work on a cost-price basis to realize the ambitious and costly goals. The desirability of the product would attract buyers, make it an interesting investment for funders and convince the municipality to facilitate the process because of the PR value involved. The endproduct of the architect's service would have a considerable amount of commercial value and thus use value for the client organization. C1 also recognized the potential use value, as the project would definitely improve his organization's reputation. The firm, which was known in the market as

'dull, conservative and risk-aversive', would instead exhibit entrepreneurial, risk-taking and innovative behaviour. Both organizations valued their reputation more than the project's profit. As C1 said: 'It's a component that you weigh [against profit]. This project is so distinctive, if we let it slip away, we will show that we do not dare'. Other architectural firms also deliberately offered non-profitable services. A6, for example, explained that although the engineering stage did not generate any profit, his firm still wanted to deliver services in this stage. The respondent feared that by giving away the engineering stage, they would lose their control over the project's quality and thus also lose the professional value of their service. All the architects agreed that delivering high-quality projects is reflected in their firm's reputation and is key to the architectural firm's unique value proposition. Client respondents were divided on the subject. Some highly appreciated and valued an architect-led quality control. In fact, they were willing to pay for it, as they recognized that high-quality projects also contribute to their own organizational goals, whether reputation-oriented or profitoriented (by the increased amount of commercial value). Other clients, however, did not believe in this particular added value of the architectural firm. They considered architectural firms too expensive and mainly concerned with their own goals or felt that architectural firms no longer possess the required knowledge. As a consequence, they wanted the architect to play a mere design role.

Agreeing on exchange value

The fee negotiation between architect and client was not a particular source of tension in the nine cases, because most of the projects had been initiated before the financial crisis. However, respondents noted that as a result of the limited financial possibilities during the last few years, the exchange value of the architectural service is currently under a lot of pressure.

Two of the architectural firms were applying a business approach to negotiate their fee. The firm of A8a and A8b determined the fee based on the entire process of the project. Because they knew that they would spend more hours than paid for to deliver a satisfactory service in the early design stages, they agreed on a fee that provided the possibility to earn the money back in subsequent stages. A8b called it an 'in-reverse process', which guarantees a more efficient process once the design is made. Since other actors are increasingly taking over parts of the architectural service delivery, such as the engineering work, A8b said that they were currently asking higher fees in cases of partial involvement. In the firm of A7, all financial negotiations were conducted by a financial director. This strategy enabled the firm to negotiate higher fees:

We ourselves often settle for less because we are committed to the project. I think that our total fee, if you look at it firm-wide, would be 20 to 30 percent less if we were to

conduct the fee negotiations ourselves. […] and the funny thing is that most of the clients are actually fine with it, since it also avoids risks.

The respondent said that clients often look for this kind of commercial approach. C6 went even further and argued that many architects are currently 'giving away territory' by deliberately avoiding a commercial approach. 'They consider finances something dirty. They are for the higher art. Actually, it's a bit cowardly. They try to be the white knight against the evil world'. C6 explained that getting involved in the financial aspects of the project and being more business-minded is necessary for architects to avoid losing key parts of the project to other actors.

Offering commercial value to the client was another strategy that we derived from our data. A2 indicated that he always tries to negotiate a higher fee by translating his value proposition into things that will be interesting to the client. Delivering higher product profitability by generating more net area is one of the examples he gave. A7 explained that they always translated the quality of their contribution into commercial value. In that sense, their fee had to match not the amount of time spent by the firm, but what the client was willing to pay for the service. The strategy was also used by A8a and A8b, who had recently started to sell clients or users separate services, such as energy scans or sustainability packages.

Some of the architectural firms were knowingly or unknowingly exploiting their reputation to negotiate their fees. Although not an active strategy like the others, we believe it is a strategy worth mentioning, as it was mentioned by several clients and directly relates to one of the architectural firm's main value capture goals. The firm of A9, one of the famous Dutch architectural offices, was considered quite expensive by its client, but as the firm was expected to deliver a design that no other firm would be able to match (and indeed succeeded in doing so), the organization of C9 was willing to pay for the firm's 'brand name'. C5 said that a 'successful track record' helps architectural firms to convince their clients to take a leap and pay a little more than anticipated.

The service delivery: safeguarding organizational value capture

The strategies that architects used to ensure that their firms would actually capture value during service delivery were mainly aimed at safeguarding or maximizing the capture of professional value. Some strategies resulted in additional use value for the client, whereas others neglected or even harmed the client's use value. Although architects mentioned strategies to pursue and secure money from the capture of exchange value, these strategies were either not fully deployed or not even initiated.

Capturing professional value

During service delivery, architectural firms challenged the original starting points of the projects. By continuously improving their designs, they aimed to maximize the creation of use value and the capture of professional value. Both architects and clients considered it the architect's primary task to deliver an optimal solution to the client's and user's needs. Respondents agreed that an ongoing discussion between architect and client regarding the content of service delivery was necessary to determine and align key goals and that it contributed to the project's quality.

In five of the nine cases, the architectural firms delivered additional quality. They decided to spend more time than they had agreed upon with the client to enlarge their firm's professional value capture while simultaneously enlarging the use value for the client. One example was derived from case 3, in which an external drawing office was hired by the client to deliver the engineering work. A3 claimed that executing the project according to the work of the drawing office would not match the standards of his firm. He believed that it would harm his firm's reputation unless the quality was improved. Moreover, it was related to his own personal work pleasure: 'I would not be able to motivate myself every day to work on a project whose potential level of quality could not be achieved'. The architect decided to work extra hours to guarantee the desired level of quality. A1 followed the same strategy. He spent more hours than anticipated to ensure that the project quality the team had in mind would be achieved. 'You notice during the process that it is getting out of hand, but you just continue working. You want to finish it, because we find the building far too nice'. The decisions of A3 and A1 show that work pleasure and reputation were intentionally overruling business decisions. In both cases, enlarging the capture of professional value also contributed to additional use value. Although clients did not necessarily need the extra use value that was generated during the stage of service delivery, they were often very pleased with it. C2, for instance, said that as a housing corporation they did not have the goal to build something with 'allure'. However, they were very proud that they ended up with it.

Architectural firms also delivered non-valued additional quality. Firms spent additional time creating project quality that contributed only to the capture of professional value rather than add any value for the client. A8a, for example, spent a lot of time convincing his client and the contractor to attach panels without using screws, even though he knew that no one would care or see whether or not screws were used. 'In the end the client decided to settle for less. And that sucks! And there is basically no-one who sees it'. The architect said that it bothered him immensely that screws had to be used, but that it was only a personal feeling. In this example, the architectural firm was not able to capture the amount of professional value they had targeted, because

the desired level of work pleasure was not met. C3 stated that architects often deliver services that are not beneficial to the client or the user. He illustrated his point by using an example in which an architect made a very elaborate drawing, while the decision-making process at that time would have benefitted more from a very rough sketch. He also mentioned an example in which a window frame was designed to contribute to the building's appearance (and thus the architectural firm's reputation). It was commented on by almost every single user, because users could only choose one particular kind of sunscreen.

Another strategy involved buying additional quality by using a part of the fee. A6 and C6 shared the cost of a more sophisticated window profile. The architect believed that is was necessary to enhance the project's quality and thus maintain and strengthen his firm's reputation. The client, who was overwhelmed by the architect's commitment, decided to contribute because he could see the added value of the profile in terms of expression and societal value. Although the architectural firm and client organization were both happy with the way the strategy turned out, this particular strategy was used in only one case.

Capturing exchange value

Although the architects' fees were originally sufficient to accomplish the service offers, architectural firms experienced great difficulties holding on to the money that they received. Five respondents claimed that they only made a small amount of profit. One of the firms even ended up making a financial loss. The two strategies that firms used to capture exchange value during the interaction with the client were either not successfully executed or not executed at all.

Managing short-term performance was used as a strategy by the firm of A5 to secure the firm's profit on the project. Respondent A5 said that the office manager, who was also a partner, was in charge of the firm's finances. His primary task was to manage the firm's short-term performance. However, the respondent had to admit that when it came to difficult decisions, the financial partner was overruled by the architect partners. If a project was heading towards financial loss:

... the office manager would say 'Perhaps we have to go a little bit less far in our engineering', but we [the architects] will always go against it because we say 'The moment you start sacrificing quality, we're giving away our unique selling point'. So in the end it would be better to take a loss but provide good quality. That's in the long run, at least in our view, even more profitable than pursuing profit on the project.

In this firm, the office manager's task of safeguarding the firm's short-term performance was made difficult by the organization's aim to maintain its reputation and ensure its long-term performance. C7 was convinced that architectural firms, like any other businesses, should be able to capture good money. For this to happen, he believed that it is crucial for architects to finish their processes. At a certain moment, a product needs to be accepted the way it is. 'It is finished. You have to accept that you cannot keep modelling your own child. And you do not have to redress it [the child] every time, because that costs money'.

One architect mentioned renegotiating the fee as a strategy to ensure the capture of exchange value. A7 said that, although they were always able to negotiate the right fee at the start of a project, they sometimes ended up thinking 'we should have renegotiated sooner'. When their assignment changed during the process, they considered whether they should question their fee. 'Let's not do it, for the sake of the relationship. And then it turns out that we should have done it'. A7 said that not renegotiating resulted in more difficulties within the team and consequently less work pleasure. The firm was no longer able to provide adequate services, which was not good for the collaboration in general. He explained that in these cases they would have been better off renegotiating. Building on the example given by A7, not renegotiating seems to jeopardize the relationship between partners instead of safeguarding it. A9 regretted that their initial negotiation approach had not been entrepreneurial enough. They had agreed on a fee that did not increase when the building costs increased and they did not undertake action to adapt the fee during the process.

§ 3.5 Discussion

The purpose of this study was to gain knowledge on the value capture of architectural firms to better understand how architects deal with competing organizational goals. Interview data from nine housing projects indicate that the use value, professional value and exchange value dimensions, all of which were considered necessary by the architects to run a viable business over time, were not always treated as equally important by the architectural firms. Both in the service offer and during the service delivery, strategies were used to trade off value dimensions. We found that architectural firms often deliberately prioritized the capture of professional value over the capture of exchange value. Professional value capture was sometimes even prioritized over the creation of customer use value. Table 3.3 provides an overview of

the value capture strategies that we identified from the interview data and shows the specific strategies in which tradeoffs between value dimensions were made.

VALUE DIMENSIONS	VALUE CAPTURE STRATEGIES USED IN THE SERVICE OFFER	VALUE CAPTURE STRATEGIES USED IN THE SERVICE DELIVERY
Professional value	Discussing goals Offering free services[a] Offering non-profitable services[a]	Delivering additional quality[a] Delivering non-valued additional quality[a/b] Buying additional quality[a]
Exchange value	Applying business approach Offering commercial value Exploiting reputation	Managing short-term performance[c] Renegotiating fee[c]

[a] *Strategies to trade off exchange value for professional value*
[b] *Strategies to trade off use value for professional value*
[c] *Strategies perceived to trade off professional value for exchange value*

TABLE 3.3 Value capture strategies of architectural firms

The 'trade-offs in value capture' that were made by architectural firms can largely be traced back to the value capture goals 'work pleasure' and 'reputation'. Without the prospect of work pleasure, architects decided not to engage in a project and sometimes considered resigning from the project once it had started. In this respect, work pleasure can be seen as a necessary condition to get or remain involved in work. Reputation and development on the other hand, are key to future work and organizational continuity. Firms need a strong reputation, as a strong reputation automatically attracts clients and is often used as a selection criterion by client organizations when choosing an architectural firm. It also helps firms to negotiate a higher fee. The organizational value capture goal 'development' appears to be closely linked to firm reputation and work pleasure. Architectural firms use the development of their organization to strengthen their reputation in the field.

Literature has already established the importance of reputation (e.g. Boutinot et al., 2015; Greenwood et al., 2005), development and work pleasure (e.g. Canavan et al., 2013) for the performance of PSFs. Our data underline this importance, but go further in explaining how firms pursue professional value over profit (exchange value) and sometimes even client (or user) satisfaction (use value). Thus, although reputation, development and work pleasure are necessary for the firm's survival, they also jeopardize its short-term and long-term performance. Strategies to gain reputation, development and/or work pleasure often resulted in a smaller fee than would have been possible or the usage of the fee as an investment (of time or money) to guarantee the capture of professional value. Capturing sufficient exchange value

is vital to ensure firm profitability and a viable business in the short run. It is also key to the organization's long-term survival as it is needed to make investments (e.g. in IT or knowledge development) in order to keep up with a changing industry. Realizing sufficient use value is necessary to guarantee client satisfaction. Firms that deliver professional services depend greatly on this satisfaction as it leads to long-term collaboration and future assignments, and contributes to their market reputation.

Interestingly, most strategies aimed at the capture of professional value hinder severely the firm's capture of exchange value, whereas strategies to guarantee exchange value seem to have no negative impact on the firm's ability to capture professional value, at least not in the stage of the service offer. Applying a business approach to negotiate a higher fee, for example, still resulted in a professional value basis that A7 was pleased with. He said that other architects were sometimes afraid to be commercial in their approach, because being too concerned with money instead of the 'architect's higher purpose' could jeopardize the relationship with the client or the image of the firm itself. He also said that in his case, the client was actually happy to have an architect with a commercial approach, because it resulted in a much smoother process. Translating the value of the architectural service into interesting things for the client to maximize the amount of exchange value, such as in the case of A2, even contributed to the capture of professional value. The architect was able to deliver more services than originally asked for, giving him better opportunities to safeguard the professional value that was of interest to his firm.

In the service delivery stage, architects were much more afraid that strategies to capture exchange value would have a negative impact on the firm's ability to secure use value for the client and capture professional value. Respondent A5, for example, believed that too much time management would harm the quality of the project and thus his firm's reputation. Other architects avoided fee renegotiations to secure their relationship with the client. Many clients, however, said that it would be much more beneficial to firms and the profession at large to adopt a more commercial approach. Architectural firms seem to recognise a certain risk in focusing on the capture of exchange value. Our data, however, suggest that it is perfectly possible to use strategies that are aimed at capturing exchange value without harming professional value. The other way around seems to be much more difficult.

Our findings, which we summarize in Figure 3.2, contribute to the knowledge and understanding of the conflicting goals and corresponding tensions that PSFs are dealing with. By distinguishing between use value, professional value and exchange value, and focusing on the firm strategies used to balance different and often competing goals, we provide a better understanding of why architectural firms are having difficulties making profit. As the interviews revealed, the profit of architectural

firms was already on the line in projects initiated before the financial crisis and with a sufficient fee. Given the challenging economic situation, it is especially important for architects to arrive at a more carefully balanced value capture process.

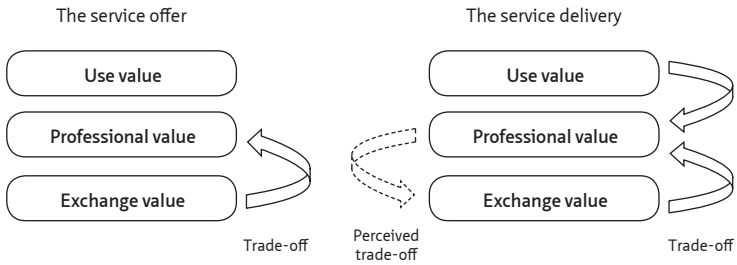


FIGURE 3.2 Trade-offs in value capture

Our study may have implications for both other types of PSFs and 'hybrid' organizations that are responding to both commercial and societal goals (Smith and Lewis, 2011). It would be interesting to see whether the findings of our study are also representative of these other types of firms. There might be substantial differences between how firms with a high professional service intensity (Von Nordenflycht, 2010) and firms with a low professional service intensity handle the value capture process.

To gain a better understanding of how value capture difficulties might be overcome by organizations both individually and in collaboration with other organizations, we believe it is necessary to develop a deeper theoretical understanding of value capture and to extend the scope of empirical research on the topic. Further research, preferably using a real-time longitudinal approach, into how tensions arise, evolve and are handled in firms that deal with multiple goals, is very much encouraged to improve the understanding of the value capture process of these firms and to uncover possibilities for enhanced value capture. Considering the difference we found in our data between the potential value that the firm agreed upon in the service offer and the actual value that was captured by the firm at the end, we argue that it is important to take the whole process of interaction between firm and client into account when studying organizational value creation and capture in the context of professional service delivery.

§ 3.6 Conclusions

The value creation and value capture by PSFs revolves around different and often competing organizational goals. To fully understand how firms are able to create and capture value in the interaction with their clients, professional goals need to be taken into account. We expand on the existing theoretical concepts 'use value' and 'exchange value' and propose 'professional value' as a third dimension of value at the organizational level of analysis. Use value refers to the quality or utility that is created for the customer, exchange value refers to the price that is paid, and professional value refers to the quality or utility that is created for the PSF.

Strategies that are used by architectural firms to capture value in the interaction with their clients, provide evidence that architects often prioritize the capture of professional value over the capture of exchange value and sometimes even over the creation of customer use value, either in the service offer or during service delivery. This is largely due to the organizational value capture goals reputation, development and work pleasure. This study confirms the importance of professional value for the continuity of architectural firms. However, it also reveals the constraints that professional value capture imposes on both short-term and long-term firm performance.

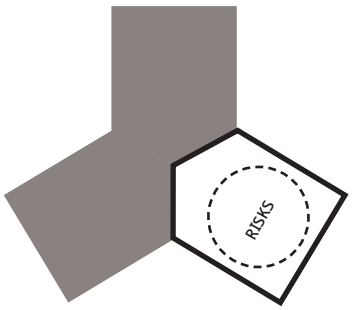
Interview data from nine housing projects show that strategies to pursue professional value hinder architectural firms in their effort to capture and safeguard sufficient monetary value. In the service offer, architects offer free services and non-profitable services to ensure professional value capture. During the service delivery, firms deliver additional quality or buy additional quality. One strategy that was used during the service delivery showed how architectural firms even trade off customer use value for professional value.

This calls for a better balance between use value, professional value and exchange value to ensure client and user satisfaction, architect satisfaction and firm profitability. A well-developed and carefully managed balance is vital for the organizational sustainability of firms dealing with multiple competing goals. This suggests that future business models for architectural firms need to facilitate non-conflicting strategies for the creation and capture of different value dimensions.

This paper provides an overview and better understanding of the constraints and opportunities for value capture by architectural firms in the interaction with their clients. It thus contributes to the development of theory on organizational value capture from a professional service perspective. As our data show, making money by capturing exchange value is not enough to run a viable business in architecture.

Bringing professional value into the discussion of organizational value capture is necessary to develop a better understanding of how firms responding to different goals capture value and how this process can be improved. This paper specifically contributes to the field of construction management by introducing the concept of value capture from management literature as a helpful construct to elaborate on existing studies of value and value creation.

4 Taking risks to play it safe: value capture strategies of architectural firms



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Abstract

Project-based firms have to capture value from the projects in which they engage. This can be a challenging process, as firms need to reconcile project goals and organizational goals while attempting to avoid value slippage. Drawing on case-based interviews with architects and clients, this research reveals how architectural firms used the strategies of *postponing financial revenues in a project*, *compensating for loss of financial revenues across projects* and *rejecting a project* to capture value. The study contributes to the literature on project business by showing that firms will sometimes risk or accept slippage of financial value yet counteract the potential slippage of professional value in projects to enhance the overall benefits for the firm. These insights help to advance the research on value capture by project-based firms and can be used by managers to identify and overcome value capture difficulties at project and firm levels.

Keywords

Architectural firms, construction projects, project business, value capture, value slippage.

§ 4.1 Introduction

Projects are the 'business vehicles' of project-based firms (Artto and Kujala, 2008). Thus, a mutually constructive relationship between a firm and its projects is vital for organizational sustainability. However, these relationships are often difficult to balance, as project-based firms are typically involved in several heterogeneous projects in which value creation is highly complex and uncertain (Matinheikki et al., 2016). As a result, each project can potentially benefit the firm's business, but can also seriously undermine it.

Although organizational aspects of project-based firms have gained increased attention in the project management literature (e.g. Artto and Kujala, 2008; Miterev et al., 2017; Winter and Szczepanek, 2008), the value capture of project-based firms and the role that individual projects play in it is still largely unexplored (Laursen and Svejvig, 2016; Martinsuo et al., 2017). Since value capture represents one of the most fundamental dimensions of any business (Teece, 2010; Zott et al., 2011), understanding the value

capture of project-based firms is crucial to fully comprehend the nature and challenges of project business (Artto and Wikström, 2005).

This research aims to unravel processes of value capture by project-based firms to add to the understanding of project business. Project-based firms differ considerably from other types of organizations, as they are specialized in delivering customized products and services for unique projects, rather than operating on the basis of repetitive production or routine activities (Artto and Kujala, 2008; Whitley, 2006). Firms often pursue multiple strategic goals in their projects, for which they not only depend on the capture of monetary value, but also on the creation and capture of non-monetary dimensions of value, such as project quality, client satisfaction, knowledge or enjoyment (Bos-de Vos et al., 2016; Pinto et al., 1998).

Considering the multiple dimensions involved in project-based value capture, theories of value capture that have been developed to explain profit generation by firms (e.g. Bowman and Ambrosini, 2000; Lepak et al., 2007; Pitelis, 2009) may fall short when trying to develop an understanding of this process. Therefore, we build on and extend value capture theory from the field of strategic management (e.g. Bowman and Ambrosini, 2000; Lepak et al., 2007; Pitelis, 2009) by complementing use value and exchange value (Bowman and Ambrosini, 2000; Vargo et al., 2008) with professional value (Bos-de Vos et al., 2016) to study value capture from a multidimensional perspective.

A case-based interview approach was chosen to investigate value capture by project-based firms through the projects in which they are involved. We specifically focused on architectural firms, as they are good examples of project-based firms, predominantly undertaking construction projects to provide creative professional services to clients and to generate financial revenues and other benefits through these projects (Hobday, 2000; Turner and Keegan, 2000). Interviews with the architects and clients involved in 24 construction projects were used to answer the following research question: *How do architectural firms capture multiple dimensions of value from their projects and how do their project-based approaches relate to the overarching goals of the firm?*

The results reveal that architectural firms use three different strategies to enable and safeguard the capture of multiple value dimensions from their projects: *postponing financial revenues in a project, compensating for loss of financial revenues across projects* and *rejecting a project*. We found that these strategies largely revolve around responses to potential value slippage (Lepak et al., 2007). The postponing strategy shows how project-based firms attempt to benefit from risking not capturing sufficient monetary value from the value that they co-create over the course of the project's lifecycle (i.e. risking financial value slippage). The compensating strategy details how

firms accept financial value slippage in projects in line with their entire portfolio. The rejecting strategy reveals how project-based firms may dismiss projects in an attempt to counteract potential slippage of professional value.

The results contribute to the literature on project business in two significant ways. First, they add to the understanding of value creation and capture in projects (e.g. Artto et al., 2016; Laursen and Svejvig, 2016; Matinheikki et al., 2016) and project business (e.g. Artto and Kujala, 2008; Artto and Wikström, 2005; Kujala et al., 2010) by providing an extended and more nuanced conceptualization of value slippage. The results show that firms sometimes intentionally risk or accept financial value slippage as it can be beneficial for firms in the longer term or reject projects to actively prevent professional value slippage. This shows that a conceptual distinction between financial and professional value slippage can add new insights to our understanding of value-related processes and the relationship between project and firm in project business. It also shows that value slippage does not always need to be avoided, as has been pointed out in earlier research (Chang et al., 2013; Lepak et al., 2007), but needs to be managed consciously by firms.

Second, the results detail how projects are related differently to the overarching firm goals and highlight three aspects that play a pivotal role in the value capture strategies of firms, namely value dimensions, portfolio and time. This underlines the importance of a multidimensional, multilevel and lifecycle perspective for studying project-based value capture. Based on our insights, we argue that existing theories of value capture need to be extended to encompass the dynamics involved in project business. We further suggest that project-based firms may benefit from identifying and responding to potential value slippage in their projects to manage value capture in and across projects and enhance the benefits for both project and firm.

This paper is organized as follows. We first present a review of the literature, with a focus on value capture, challenges in project-based value capture and strategies for value capture. In the subsequent section, the research methods, including the empirical setting, data collection and data analysis will be presented. The results section then presents the three strategies that were used by architectural firms to capture value in projects, as well as the underlying responses to potential value slippage. We conclude with a discussion of the original contributions of our results to the literature on project business, drawing attention to the managerial implications of our research and addressing some limitations and directions for future research.

§ 4.2 Theoretical background

§ 4.2.1 Value capture

Value capture refers to the process by which firms retain a part of the value that they create (Zott and Amit, 2010). It is also referred to as value appropriation (e.g. Burkert et al., 2017; Mizik and Jacobson, 2003). In an organizational context, Pitelis (2009, p. 1118) defines value as 'the perceived worthiness of a subject matter to a socio-economic agent that is exposed to and/or can make use of the subject matter in question'. Thus far, the majority of research on organizational value capture has been conducted in the field of strategic management, focusing on profit generation by goods producing or entrepreneurial firms (Lepak et al., 2007; Pitelis, 2009). In these studies, value capture is commonly defined as the difference between a firm's revenues and costs, and is conceptualized as the exchange of the utility of a good or service for money at a certain moment in time (Bowman and Ambrosini, 2000; Mol et al., 2005). This is often referred to as the exchange of 'use value' (i.e. the customer's subjective perception of the qualities or utility of a product or service) for 'exchange value' (i.e. the price paid to the firm) (Bowman and Ambrosini, 2000; Vargo et al., 2008). While the value that is created by the firm consists of a certain quality and utility, the value that is captured by the firm is monetary.

In the field of project management, value capture has only recently gained attention as a phenomenon that is important to study (Chang et al., 2013; Laursen and Svejvig, 2016). Scholars have explicitly called for more research on value capture in a project context, as the process is distinct from the process of value creation and may add new insights to the understanding of value-based processes in projects and how project-based firms work (Laursen and Svejvig, 2016; Martinsuo et al., 2017). Value capture studies are also relevant because project-based firms often encounter difficulties when attempting to capture value in their projects.

§ 4.2.2 Challenges in project-based value capture

Service-dominant logic and service logic scholars argue that value is only created when a firm's products or services are perceived to be worthy by the client, user or

other stakeholders and, therefore, always co-created or co-destructed in the context of interactions between multiple, heterogeneous actors (Grönroos and Ravald, 2011; Plé and Cáceres, 2010; Vargo and Akaka, 2009; Vargo et al., 2008). This means that project-based value capture is a complex, dynamic social process involving multiple stakeholders, who all have different and sometimes conflicting goals (Matinheikki et al., 2016; Van Marrewijk et al., 2016).

In project-based environments, value capture revolves around largely intangible values, which continue to evolve over the course of a project. At the front-end, the value that can be captured from a project is often highly uncertain and unpredictable (Samset and Volden, 2016). Certain aspects of a project delivery may only become worthy over the course of a project or even after completion (Chang et al., 2013). This makes it difficult to create a 'healthy' balance between use value and exchange value from the viewpoints of various actors; especially since these actors pursue different goals in the project and have different perceptions of worth (Chang et al., 2013).

Because of the complexity and dynamics involved in the process, value may easily slip from one actor to another. Lepak et al. (2007) used the notion of 'value slippage' to explain why actors are not always able to capture the monetary equivalent of the value that they co-create. They argue that value slippage occurs in situations where the use value created is high but the exchange value is low. In these situations, clients or other stakeholders may benefit from the utility of a product or service without adequate payment. In line with Lepak et al. (2007), Chang et al. (2013, p. 1140) describe value slippage as 'a phenomenon that occurs when value is created but not captured [by the firm]'. Value slippage can be detrimental for a firm that co-created value in a project, as the firm has to bear the costs of value generation without being able to benefit from it financially (Chang et al., 2013; Lepak et al., 2007). Thus, value capture 'needs to be managed appropriately to avoid "value slippage"' (Chang et al., 2013, p. 1140).

§ 4.2.3 Strategies for value capture

The strategic management literature has revealed how certain strategies allow firms to capture monetary value from their products and services and protect themselves against value slippage. Pitelis (2009) differentiates between four types of value capture strategies that firms may use: 1) field-level strategies aimed at creating and maintaining barriers to entry for new firms (e.g. absolute cost advantages, economies of scale, product differentiation strategies), 2) firm-level 'generic strategies' aimed at reducing the forces of competition (e.g. cost leadership, differentiation, niche

strategies), 3) inter-firm-level strategies aimed at generating efficiency or market power (e.g. integration, cooperation, diversification strategies), and 4) firm-wide differentiation strategies aimed at creating a competitive advantage by building on the advantages of the firm (e.g. resource, capabilities, business model strategies).

Although empirical evidence has demonstrated that firm-wide differentiation strategies can indeed be instrumental in their value capture (Zott and Amit, 2007), it has been recognized that they can also involve value slippage. For example, Somaya and Mawdsley (2015) argue that entrepreneurial, skilled or creative people enhance firms' abilities to capture financial value, but may also use their unique position in the firm to appropriate parts of the value captured, resulting in value slippage for the firm. Mizik and Jacobson (2003), argue that firms may sometimes decide to prioritize value creation over value capture and allocate their resources accordingly. This emphasizes that firms may be confronted with trade-offs when deciding on their value capture strategies.

A recent study on value capture by highly professionalized firms operating in projects highlighted that the value capture strategies used by these firms are often characterized by trade-offs between different value dimensions (Bos-de Vos et al., 2016). In the study of Bos-de Vos et al. (2016), the interaction between use value and exchange value is complemented with 'professional value'. With the notion of professional value, the authors refer to the perceived qualities or utility of a firm's products or services that are important for realizing the firm's professional goals, such as building and maintaining a reputation, further developing the organization or realizing work pleasure. The study emphasizes that projects are not only the main means by which project-based firms generate financial revenues (Arvidsson, 2009), but that they are also used to attain other strategic objectives, which makes it important for firms to develop value capture strategies that are able to generate a balance between the different values they aim to capture in a project (Bos-de Vos et al., 2016). Thus, for researchers interested in understanding the value capture of project-based firms with multiple strategic goals, it is important to gain more insight into how firms attempt to capture multiple dimensions of value in projects and how and why firms make trade-offs between different value dimensions in their project-based value capture strategies. This study focuses on this particular area of interest.

§ 4.3 Research methods

An inductive qualitative approach was chosen to develop an in-depth understanding of how project-based firms capture multiple dimensions of value in their projects. An inductive approach is appropriate to gain insight into phenomena for which plausible existing theory and empirical evidence are lacking (Edmondson and Mcmanus, 2007). As such, it is particularly suitable for examining the capture of multiple dimensions of value by organizations in a project context, which has been largely underexplored in existing value capture research. Choosing case-based interviews as our method of data collection allowed us to gather rich, case-specific data that could reveal important arguments, feelings and dynamics behind firm value capture strategies in projects.

§ 4.3.1 Empirical setting

Architectural firms involved in construction projects served as the empirical setting for our research. These firms primarily rely on various one-off projects as the basis of a successful business (Hobday, 2000; Turner and Keegan, 2000) and thus need to capture value in these projects. Value co-creation and value capture in construction projects is highly complex, as the many actors involved often have diverging goals (Matinheikki et al., 2016; Van Marrewijk et al., 2016). The value capture of architectural firms is particularly challenging, as these firms need to realize their own creative, professional and commercial goals (Løwendahl, 2005; Maister, 2012), while simultaneously addressing different client, stakeholder and societal demands in their projects. The fact that architectural firms are typically not in the position to design or influence the project's value co-creation process (Lieftink and Bos-de Vos, 2017; Manzoni and Volker, 2017), further complicates their value capture.

Due to the background of the authors, we conducted our research in the Netherlands. Over the past few years, many organizations that are involved in Dutch construction projects have proactively changed or been forced to change their service delivery. Contextual developments, such as the global economic recession of 2008, an increase in the procurement of integrated project deliveries, and the rise of new technologies, such as Building Information Modelling (BIM) and 3D printing, have also challenged architectural firms to rethink the way they create and capture value in projects (e.g. Schoorl, 2011; Van Doorn, 2014). As a result, organizations are confronted with new dynamics and challenges in their value co-creation and value capture processes.

§ 4.3.2 Data collection

Data were collected from January 2014 to January 2015. We chose to sample a broad selection of architectural firms that were involved in diverse projects so we could search the data for overarching patterns across firms, which were not exclusive to any particular project context. In total, 24 firms were selected. These had diverse strategic orientations, including strong-idea firms, strong-service firms and strong-delivery firms (Coxe et al., 2005). They were established between 1927 and 2013 and consisted, at the time of the interview, of between 1 and 120 people. The projects in which the firms were involved differed in typology (projects included residential buildings, hospitals and care facilities, offices, educational buildings, a sports facility and a railway station), geographical location (the locations were spread across the Netherlands) and governance form (projects included traditional project deliveries, integrated project deliveries and alternative governance forms). All projects were ongoing for at least one year or were realized no longer than a year prior to the interview to ensure that the respondents were able to reflect on the value capture process.

Our main data source consists of 25 interviews with project architects of the 24 architectural firms that were involved in the projects. The interviews were held at the interviewees' offices, they lasted between 45 and 120 minutes and were audio-recorded and transcribed verbatim. The respondents were invited on the basis of their involvement in the selected project. During the interviews, we first asked the respondents questions about the characteristics of the project to create a comfortable setting in which respondents were encouraged to open up about the sometimes sensitive subject of value capture. Then, we focused on the project goals, their own goals in the project and to what extent they felt that these project and organizational goals had been reached. This helped us to develop a general understanding of value co-creation and capture in the project. We then focused on the value capture process by questioning respondents about how they had attempted to realize their strategic goals in the project and how they felt enabled or constrained in this process.

We also conducted 15 interviews with the project clients to gather additional insights regarding the value capture processes of architectural firms. These clients were public, semi-public and private construction organizations and included governmental agencies, hospitals, housing corporations, contractors and developers. We specifically asked clients why they had selected the architectural firm, how they experienced the collaboration with the architects in the project and how satisfied they were with the outcome of the project. This was important, as it provided a different perspective on the co-creation and capture of value in the project and the extent to which goals had been reached. In addition, we collected project and firm documentation provided by

the respondents or available on firm websites, such as project descriptions and the firm mission and vision. The client interviews and archival documents helped to gain greater contextual understanding of the firms and projects under investigation.

§ 4.3.3 Data analysis

The data analysis consisted of three iterative steps in which we continuously alternated between within-case analyses on the basis of the interviews of one specific project and cross-case analyses by comparing the interviews of different projects. This facilitated us in gaining a detailed understanding of architectural firms' value capture in specific projects and the overarching patterns of relationships that characterized these processes (Eisenhardt and Graebner, 2007). The software program MAXQDA was used as a supporting tool. During the entire process, we repeatedly compared our empirical results with the literature on organizational value capture (e.g. Bowman and Ambrosini, 2000; Lepak et al., 2007; Pitelis, 2009) and attempted to identify similarities and differences. The transcripts of the architect interviews were used as the primary data source for the analysis. The transcripts of the client interviews and archival documents were consulted to support and refine the emerging results and were also used for triangulation purposes.

The first step in the analysis aimed to develop a detailed understanding of the *content* of architectural firms' project-based value capture. We searched the data for values that respondents wished or claimed to have captured in their projects and grouped these into four overarching categories of 'value capture goals', namely 'reputation', 'development', 'work pleasure' and 'money'. The reputation category included values such as prestige and project quality; development consisted of values such as knowledge, competitive advantage, innovation and commercial relationship; work pleasure consisted of values such as enjoyment, appropriateness and appreciation; and money included values such as income and profit.

In the second step, we aimed to gain a profound understanding of the value capture *process* of firms. We analysed the individual interviews looking for specific actions and decisions that were related to a firm's value capture in the project. The subsequent comparison with other interviews led to the emergence of various value capture tactics that were used by architectural firms to appropriate value from a project. Further investigation, which focused on detailing the situations in which each tactic was used, as well as their aims and effects; led us to distinguish between three categories of tactics that were used to navigate between the project and the firm: 'investing tactics'

(investing in the project, increasing the investment in the project), 'compensating tactics' (compensating the project with realized projects, compensating the project with another active project) and 'refusing tactics' (saying no to the client prior to involvement, saying no to the client during the project).

The third and final step focused on identifying and unravelling project-firm strategies for value capture based on the relationships between different tactics. For this purpose, we rigorously analysed the different tactics and examined how they were shaped by dynamics occurring at the intersection of the project and the firm. We specifically searched for project and organizational reasons that had triggered firms to engage in certain tactics in a project, and the implications of these project-specific tactics. This resulted in the identification of three overarching project-firm value capture strategies used by architectural firms, which we labelled as follows: 1) 'postponing financial revenues in a project', 2) 'compensating for loss of financial revenues across projects' and 3) 'rejecting a project'. Detailing the interaction between use value, exchange value and professional value (Bos-de Vos et al., 2016; Bowman and Ambrosini, 2000) was a crucial step in this process. It highlighted two types of value slippage-related risks that were at the core of the strategies: the risk of financial value slippage and the risk of professional value slippage. Analysis of the different ways in which these risks were responded to, revealed that the value capture strategies of architectural firms were largely shaped by strategic decisions with regard to value dimensions, firm portfolio and time. In the results section, the three strategies and underlying value slippage responses are presented in detail. Table 4.1 provides an overview of typical interview statements for each of the three strategies. The respondents are designated A1 to A25.

VALUE CAPTURE STRATEGY 1: Postponing financial revenues in a project	VALUE CAPTURE STRATEGY 2: Compensating for loss of financial revenues across projects	VALUE CAPTURE STRATEGY 3: Rejecting a project
Investing in the project: 'We made an agreement with the contractor about a bonus. We would do the tender for cost price and if we won, we would receive a bonus. For them [it was] good because the work was initially cheaper. And for us [it was] good because we would get more with a bonus than what we would have if we had asked for our normal fee.' (A13) 'And then we try to make a good arrangement with the client regarding what we will earn if we get selected and what we will potentially earn afterwards. We don't mind taking a risk with that because all parties do so, but it needs to be in proportion.' (A22) 'So, sometimes we say in an initial stage, "Pay us half the hourly rate that we are asking; so, for an average fee of 100 euro, pay us 50 euro at this stage, but if it [the project] continues we want you to pay us 150 euro instead of 100 euro." Well, that went well a couple of times because we won and got 150 all of a sudden, and sometimes it doesn't go that well and then it's our risk. But most of the time, those 50 euros cover our expenses, so we can just break even. But in that way, you have to try to be inventive in how you persuade the client to cooperate in the exploration of a project and pay us for it.' (A23) **Increasing the investment in the project:** 'At a certain time, we had to do something again and then something else. So, we said: "There is no more money, we would love to do it, but we had an agreement." Well, then we eventually solved it without additional payment, by making our subsequent assignment larger if we won.' (A13)	**Compensating the project with realized projects:** '[...] so, this was a project that we certainly didn't make any profit with. [...] But we look at our entire portfolio and consider: "Can we miss out on those couple of thousand euros?" And that's how it goes.' (A20) 'If we can build a financial buffer with these projects, with which we can take risks, we will also start developing ourselves. Then I can dare to do even more by ourselves.' (A15) **Compensating the project with another active project:** '[...] in the past, it was already the case that utility projects frequently financed the housing projects' (A21) 'The time spent with private clients is really a lot more than with commercial projects. In other words, we don't make a profit in private projects. We do private projects because we can develop ourselves by doing them and because we really like it, but it gets paid for by other projects.' (A9)	**Saying no to the client prior to involvement:** 'We notice that we have to say no more often to projects where you only get a small fee for a design stage. Because that's just not feasible for us and also because I believe that it's not good for your firm. After all, you need to stay healthy.' (A23) 'We asked 2500 per house and he [the developer] considered that way too much [...]. He said: "My directors consider it an opportunity to work with you, but it isn't a must and if I tell them that you are asking this amount, they will immediately go to another architect because this is way too much money." [... So] I thought: 'Maybe I just need to consider this a side experiment, but not give away everything I have to offer there, because you give those developers your network, all your ideas, your knowledge and then they destroy it. And you don't get paid for that.' (A15) 'So, if [the client] says: "I would like to have one hundred semi-hooded 1930s houses", I [may] think "that's a quick earn", but after that my office is done. So, I don't do it.' (A9) **Saying no to the client during the project:** 'And we created a beautiful design, but the client was really pig-headed and wanted to ignore all kinds of rules, such as fire regulations, etc. [...] We really had a fantastic project. A very big assignment for our office, with a fee of more than one million euros. So, then we said: "Call it off, go find another architect, look for another victim."' (A19)

TABLE 4.1 Typical interview statements

TOC

§ 4.4 Findings

Architectural firms used strategies of postponing financial revenues in a project, compensating for loss of financial revenues across projects and rejecting a project to capture value in their projects from a firm perspective. Further examination of the three strategies with regard to the interactions between different values (use value, exchange value and professional value) reveals that the three strategies all revolve around responses to potential value slippage. Firms intentionally risked or accepted financial value slippage in projects by using the postponing and compensating strategies, and attempted to avoid the slippage of professional value by using the rejecting strategy. In the sections below, we present the three strategies in detail, drawing attention to the underlying reasons that firms have for pursuing the strategies, providing examples of the tactics used to carry out these strategies and discussing the value slippage responses underlying each strategy with regard to the trade-offs they involve across different value dimensions, across firm portfolio and across time.

§ 4.4.1 Value capture strategy 1: Postponing financial revenues in a project

By postponing financial revenues in a project architectural firms offered the client a reduced fee in the project's first phase and attempted to ensure that they could generate profit in later phases. With this strategy, firms accommodated their clients' need to keep the costs low in the initial phase, as well as their own professional desire to be involved in the project. They also pursued an increase in financial benefits compared to their traditional revenue structure. As the strategy requires an investment in the front-end of a project, it carries substantial risk related to the uncertainty about the project continuing or not.

Underlying reasons

The postponing strategy was often chosen in tender situations where architectural firms were expected or asked by their clients to treat the initial assignment as an investment. Many clients seem to believe that joint investments represent crucial incentives to collaborating actors to give everything it takes to win a project. A private developer explained that he expected architectural firms to invest in a potential project, as they would automatically become part of the team in case of winning the tender:

What we do, we have a competition and then we compose a team and we say to the architect, but also to ourselves and to the contractor, 'Let's all go for it, all the way, but we won't send each other invoices'. So, we all do it at our own risk, but if we win, we are also a team and we will arrange everything nicely and … so together you all invest in yourself.

Although the architects often expressed their dissatisfaction regarding the tough financial conditions that accompanied tenders and development competitions and attempted to be selective in the tenders in which they became engaged; in general, they considered tenders necessary investments in future work.

Architectural firms also used the postponing strategy in other projects where the client had the financial resources to pay the architect an adequate fee, but where payment in the front-end was difficult. This was, for example, the case for projects where the potential benefits were still highly uncertain or where the client did not yet have access to the necessary financial resources. In these situations, architectural firms wanted to help their client make the project feasible. They also attempted to ensure that the client would not let the project go or continue without the involvement of the architectural firm. As architect A23 said:

[…] you have to try to be inventive in how you persuade the client to cooperate in the exploration of a project and pay us for it.

Although this architect eventually wanted payment for her services, she was willing to co-invest in the project to help her client. Hence, firms deliberately chose to postpone financial revenues in projects that they absolutely wanted to be engaged in.

Examples of tactics used

The tactics that were used by firms to postpone financial revenues in a project largely revolved around attempts to negotiate revenue structures that covered their expenses or would only lead to marginal losses during the first phase, and that became profitable over the course of the project. Firms seemed particularly keen on ensuring that their investments were reasonable in the context of the wider project and that they would eventually pay off. Respondent A22 pointed out:

We don't mind taking a risk with that [investing in the project] because all parties do so, but it needs to be in proportion.

In several interviews, the architects argued that investing in the first phase of a construction project – which usually includes the development of a design – basically implies giving away their core business for free. For the other project actors, such as real estate developers or contractors, the investments required generally involved fewer substantial activities and costs, which are often insignificant compared to the overall revenues of these firms.

Respondents gave examples of negotiating dynamic fees that grew when they were able to create more square metres in a project; revenue structures that included different hourly rates per phase; and bonus structures based on specific incentives. While the first two were rarely mentioned, negotiating a bonus structure seemed particularly popular among the firms in our sample. A large number of respondents saw a success bonus or performance-based bonus as a perfect way to make up for the lack of sufficient financial revenues in the initial phase of a project, as is illustrated in the quote below:

We made an agreement with the contractor about a bonus. We would do the tender for cost price and if we won, we would receive a bonus. For them [it was] good because the work was initially cheaper. And for us [it was] good because we would get more with a bonus than what we would have if we had asked for our normal fee. (A13)

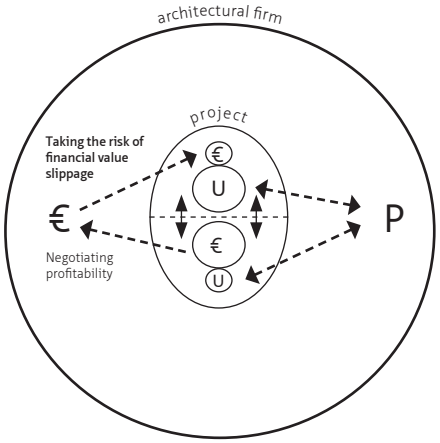
In addition to this, we found that firms stuck to the strategy of postponing financial revenues in a project when the conditions for value capture became more difficult in the project's first phase. For example, when firms were asked to perform additional activities and were unable to convince the client to pay for these extra efforts, they increased their investment in the project. Architect A13 explained how he went along with his client's requests for additional work by negotiating an even greater return for the project's next phase:

At a certain time, we had to do something again and then something else. So, we said: 'There is no more money, we would love to do it but we had an agreement'. Well, then we eventually solved it without additional payment, by making our subsequent assignment larger if we won.

So although the costs were no longer covered, this firm continued its work. This shows that firms were willing to accept more financial risks and burdens in a project's first phase as long as they had a good chance to recover the outlays in subsequent phases of the job.

Value slippage response: Taking the risk of financial value slippage

The postponing strategy demonstrates that firms sometimes took the risk of financial value slippage in a project, as they wished to be involved in the project to capture professional value. Firms considered the concerned projects nice additions to their portfolio and a way to benefit in the longer term. By enabling the client to benefit from a reduced fee in the first phase of a project, firms initially realized more use value than the exchange value they received in return. They thereby accepted that financial value slippage occurred in the first phase of a project. Although firms aimed to reverse this slippage of financial value over the course of the project by increasing the exchange value in later phases, they took the risk of receiving less exchange value than the created use value was worth if the project did not continue. Figure 4.1 shows that firms invested money in the first phase of the project and were able to recover their financial investment in later phases if the project was continued. In both phases of the project, the use value that was created also enabled the firm to capture professional value.



Legend: U = use value
€ = exchange value
P = professional value

FIGURE 4.1 Postponing financial revenues in a project

As has been shown through the accounts of the postponing strategy, firms seemed willing to accept the risk of financial value slippage in a project or, if necessary, were even willing to accept an increased risk, as long as the risk was considered reasonable within the context of the project, and financially feasible for the organization. The results suggest that firms deemed that the risk of financial value slippage in a project

was particularly worthwhile when they saw the project as an opportunity for future work that fitted well with their professional goals.

From the viewpoint of the firm's portfolio and depending on the risk taken, postponing strategies were only possible to a limited extent, as firms needed a financial buffer to overcome the loss of financial revenues in the project's first phase and the further loss of financial revenues if the project did not continue. This suggests that firms could only engage in this strategy occasionally and needed to make financial agreements that allowed them to cover their expenses in the first phase and make a profit in later phases. It also indicates that, for each project, firms needed to decide to what extent the project context and the benefits envisioned in relation to the particular job justified taking the financial risk.

Time played a crucial role when taking the risk of financial value slippage. Firms faced the risk that the project would not continue after the first phase. They thus needed to ensure that they would indeed be commissioned for later project phases. Some respondents preferred to work with non-professional clients, such as hospitals and schools, in order to ensure this continuity, as, typically, these clients commission firms for the entire scope of a project, while commercial clients, such as developers or contractors, tend to divide projects into smaller parts and only offer certain aspects of the job to architectural firms. This suggests that the type of project and client influenced judgements about how beneficial it is for the firm to take the risk of financial value slippage in a project. Firms also needed to limit the time spent on the project to ensure that their costs did not get out of hand and they were able to compensate their initial investments in later project phases. Thus, to ensure that taking the risk of financial value slippage would lead to the successful capture of both financial and professional value, agreements regarding the nature of the firm's involvement and the payment of the firm in the project were particularly important.

§ 4.4.2 Value capture strategy 2: Compensating for loss of financial revenues across projects

With the strategy of compensating for loss of financial revenues across projects, architectural firms deliberately engaged in non-profitable projects by compensating for any financial revenues lost with the revenues of other projects. We found that non-profitable projects represented a substantial part of the portfolio of many firms. For example, respondent A9 mentioned that one-third of his firm's portfolio, and sometimes even more, consisted of housing projects that did not generate any profit.

This implies that the compensating strategy is often used on a regular basis and strongly embedded in the management of a firm's entire portfolio.

Underlying reasons

The compensating strategy was often used in projects that were characterized by tight budgets, such as social housing or projects for private clients. In these situations, architectural firms pursued the compensating strategy because they saw no opportunity to negotiate a higher fee but did not want to miss out on the project. Respondents emphasized that, in certain situations, it is simply impossible to be paid their actual worth. For example, they said that some clients did not have the expertise or experience to understand how much time it takes to come up with a project solution and are often unable to foresee the benefits that will result from the architectural firm's involvement:

With private clients it is often the case that we are too expensive. It's an enormous investment to hire someone to spend that much time on your own personal wishes. […] And in the end or during the process you often see that it finally makes sense. After all, you do so much, all the drawings, things … then they eventually see the complexity of your work. (A9)

The respondents believed that attempts to negotiate a higher fee would only lead to relational tensions and could even jeopardize their involvement in the project. As a result, firms deliberately did not insist on full payment.

Firms also used the compensating strategy in projects where financial resources were lacking altogether, such as projects initiated by architectural firms that did not directly involve a paying customer. Many architects believed that initiating projects would help them to claim a more comprehensive role in the design, engineering and construction process and thereby help them safeguard and improve the project's quality.

Non-profitable projects often appear to revolve around unique ambitions that are sometimes difficult to find in other assignments. The architects highlighted how they used non-profitable projects to expand their portfolio and further develop their skills and expertise, which also made these projects incredibly enjoyable to work on. The architects considered the high quality and learning experiences that resulted from these ambitious projects to be very lucrative in the long term because they enhanced their firm's reputation, helped them to further develop their expertise and added to their work pleasure. Thus, the architects were willing to 'take their losses', or invest in a project, as they envisioned other benefits from their involvement in that particular

project. An example concerns architect A14, who had immediately agreed to invest in a project because he expected his investment to pay off in terms of knowledge development:

We knew beforehand that it wasn't a regular assignment. We knew that both of us [the client and the architectural firm] needed to invest. We also knew that for us it was a matter of developing yourself as an architect, but also of doing further study. You know, if you look at it very plainly, the BNA [professional association] expects you to get your credits every year. Do I need to pay the BNA to follow two or three courses there, or do I do it in the project, because a client asks me to do it?

The quote illustrates how architect A14 considered the investment to be beneficial because it helped him to further develop his expertise and also helped him to achieve his professional training credits. Other respondents mentioned similar reasons for engaging in the compensating strategy. The respondents also gave examples that showed how the compensating strategy had resulted in the subsequent acquisition of large and/or prestigious projects:

So, the identity of our firm, being a firm that is really good in transformations, is due to those ambitions of private clients, such as 'I'm going to buy a church and I'm going to live in it' or 'I'm going to buy a water tower and I'm going to live in it'. And eventually that results in the references needed to transform the Drents Archive Building [a national monument]. (A9)

This quote illustrates that the involvement of firms in non-profitable projects through pursuing the compensating strategy may contribute to the development of expertise and reputation and, as such, may be very valuable for developing or strengthening a competitive advantage and generating future work. Respondents often argued that their firm would not have been selected for a certain project without having those non-profitable assignments in its portfolio. The increased competitive advantage that was due to the non-profitable projects also seemed to enhance the firms' ability to negotiate more exchange value in future projects. This reveals the positive impact that the strategy of compensating for loss of financial revenues across projects can ultimately have for the overall value capture of a firm.

Examples of tactics used

Firms decided whether or not to engage in a non-profitable project on the basis of their entire portfolio of work. Some firms assessed the financial reserves that they had built up with past work to decide on the question: *'Can we afford to miss out on a few*

thousand euros?' (A20), or actively worked on creating a financial buffer so they could initiate projects themselves. Other firms compensated for a non-profitable project one on one with another active project. One architectural firm, for example, systematically used utility projects to compensate for the loss of financial revenues in housing projects. Respondent A21 said that his firm had always used this strategy in order to stay involved in the housing sector. At the time of the interview, his firm was using a retail project in order to realize a housing project. Respondent A21 argued that the retail development involved so much money that the architect's fee was the least of the client's concerns:

It [a retail assignment] needs to be finished on time. Opening the store in time involves so much earning power for the retailer; our fee barely plays a role in it. So, we evaluate the quality of our contribution very commercially and ask the client to pay a commercial value. It is often the case that this is not in proportion to the hours we spend, but that doesn't matter at all, because he is willing to pay for it.

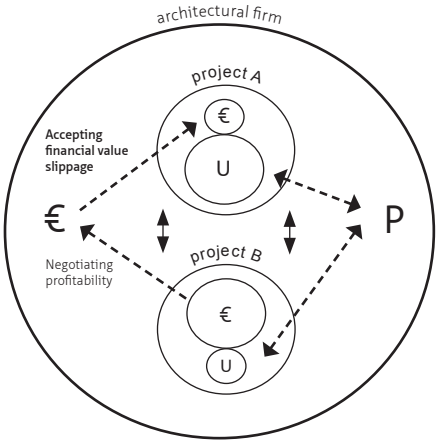
The quote shows how architectural firms applied negotiating tactics in certain projects so that they could use them to compensate for non-profitable projects. Some clients particularly emphasized that they were willing to pay for the commercial value that resulted from the architectural firm's involvement.

The architect's fee is, I wouldn't say a pittance, but it is only a small part of the total investment that we make in a project. And still it gets a lot of consideration, while I would personally say 'spend a bit more on that [...] because the added value that the architect can have will pay off anyway'. At the same time, it's the factor that is most difficult to grasp. Because, does it matter for the revenues of the building, which are important for the financial feasibility of its 50 year operation, if you hire architect X or architect Y? That's difficult to pinpoint, but there is definitely a difference; otherwise there would not be any difference between different buildings. (Developer from a housing association)

The clients generally argued that architects need to be much more assertive in presenting reasons to be paid their full worth. This implies that the compensating strategy – which architectural firms may consider necessary with respect to the financial resources of certain kinds of projects and suitable with respect to attaining their own professional goals – is not always considered necessary by clients.

Value slippage response: Accepting financial value slippage

The strategy of compensating for loss of financial revenues across projects illustrates how, in certain projects, firms willingly and knowingly accepted financial value slippage. They agreed to work for an exchange value that they considered to be less than the use value that was co-created through their activities, and compensated this slippage of financial value with other projects where exchange value exceeded or had exceeded use value. Figure 4.2 illustrates how firms invested money in Project A, with the profit they expected or had been able to generate from Project B. The figure also shows that the use value that was co-created in Projects A and B depended on, but also added professional value to, the firm.



Legend: U = use value
€ = exchange value
P = professional value

FIGURE 4.2 Compensating for loss of financial revenues across projects

When compensating for loss of financial revenues across projects, firms prioritized professional value dimensions over monetary value. Although financial value clearly slipped to the client, this did not necessarily led to actors perceiving the project as unsuccessful. On the contrary, the architects in our sample often seemed to consider the professional value that they gained by accepting a 'lack of' exchange value, worth the financial value slippage. This is supported by the fact that architectural firms rather compensated for lower financial revenues of a project than to reject the job or endanger the professional benefits that they envisioned arising from the project. Thus, the response of accepting financial value slippage indicates that firms can be particularly eager to engage in a project that may endanger the firm's financial viability in the

short term because it allows the firm to capture professional value, which in turn may contribute to the firm's professional and financial performance in the long term.

A well-orchestrated and carefully managed balance between 'compensation' and projects 'to be compensated' on the portfolio level seemed particularly crucial when accepting financial value slippage. Even for firms that were able to create such a balance, the strategy involved considerable risks, as delays or complete abandonment of projects could severely damage the balance between different projects, and seriously impact the firm.

Accepting financial value slippage in a project also confronted firms with an important challenge with regard to time. The financial and professional 'inputs' and 'outputs' of the project needed to be consciously managed throughout the entire project process to ensure that the professional benefits pursued continued to outweigh the financial investments required. For example, the costs associated with the firm's time investment needed to be kept under control, while the professional value that was envisioned had to remain within reach.

§ 4.4.3 Value capture strategy 3: Rejecting a project

By using the strategy of rejecting a project, architects dismissed work of which the professional value that could be captured was not of sufficient interest for their firm. The data revealed a clear dichotomy between firms that used the rejecting strategy and firms that did not want to use it. Respondents from firms that attempted to avoid the rejecting strategy argued that clients might perceive the rejection of a project as indicating weakness in their firm. These firms preferred to put themselves in difficult positions to make the project work, rather than to disappoint the client and risk missing out on potential future work. Respondents from other firms addressed this situation in a completely different manner. These respondents mentioned that they had resolved to never accept projects that did not match their ambitions.

Underlying reasons

The rejecting strategy seemed particularly useful in projects where firms were not properly rewarded for their involvement and either could not or did not want to compensate for any loss in financial revenues. Respondents who mentioned that

they had to reject the project because it was unhealthy for business, often referred to small assignments. This suggests that firms were more likely to reject a project when they did not foresee a substantial amount of professional value. Firms rejecting projects because they did not want to compensate for them, had recognized a clear mismatch between the project and the firm's professional ambitions. Architects used the rejecting strategy when they expected that the project would not contribute to achieving their professional goals, such as the level of quality they pursued, the development of their expertise or their work pleasure. Architect A9 listed three aspects that triggered him to reject a project:

By saying 'yes' to all assignments offered by private clients, you sometimes face the risk that A) you don't produce quality, B) you don't enjoy the work, and C) that your business suffers from the work financially.

This quote illustrates that architects evaluate whether a project will contribute to their professional and commercial goals in deciding whether they reject a project or not.

We noticed that the rejecting strategy was even used in situations where architects faced appropriate payment, but feared that the professional value that they had built up over the years would be endangered by the project. The respondents seemed very cautious about engaging in projects that might not result in a certain quality level. Many architects believed that engaging in 'marginal designs' would eventually destroy their firm's reputation. They argued that they had to develop and protect a high-quality brand in order to compete for interesting and fulfilling work. The respondents also gave examples of using the rejecting strategy to protect their resources and partners. For example, architect A15 considered rejecting a project because he believed that the developer involved would use his resources and partners in the wrong way and for the wrong purposes. This shows that the rejecting strategy was not only pursued because actors expected the project to prevent the capture of sufficient professional value, but also because they wished to protect the professional value that they had captured with other partners in earlier projects.

Examples of tactics used

Saying no to the client prior to involvement was one of the tactics used by firms to reject a project. We found situations in which the architects immediately explained to the client that they could not be involved in the project or decided not to compete for selection in a project because they could not offer their services at a competitive rate. In these situations, the firms often wanted to do more than the client requested, in order to maintain their professional goals, or simply did not support the particular project.

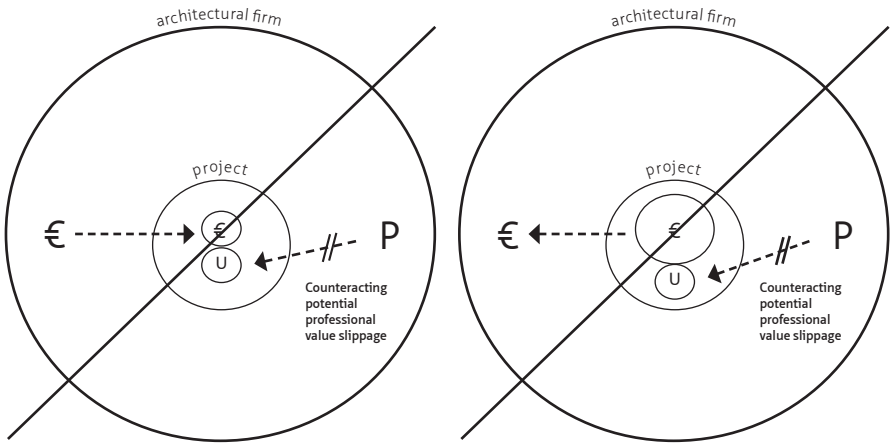
Firms also used the rejecting strategy as a last resort when already engaged in a project. This often occurred when the project had evolved in such a way as to endanger or potentially endanger the professional value that the firm aimed to capture. For example, respondent A20 mentioned how his firm backed out of a competition for a school when the client decided to hire another party for the engineering work:

The other day, we handed back a project. We withdrew from the competition because they excluded the construction drawings from our assignment. Then we said: 'Let's leave that school for what it is'. We don't want to be involved in that discussion, we know that it will result in one big misery. We know that the client will continue the design with a drafting firm and just change all kinds of things.

Respondent A20 explained that the change in assignment immediately turned the project from interesting to not interesting because his firm would never be able to realize the level of quality that they aspired to if a drafting firm took over part of their work. Other respondents gave examples of telling the client to call off the project, or withdrawing because of an unexpected and unacceptable change in their assignment.

Value slippage response: Counteracting potential professional value slippage

The rejecting strategy reveals how firms counteracted potential professional value slippage in projects. Figure 4.3 shows how firms rejected a project when they expected that the created use value would not contribute to the capture of professional value, being prepared to instantly lose any possibility of capturing value from the project. Although this may seem to be an overreaction and unhealthy for business, as firms do not generate any income by using the rejecting strategy, it does allow firms to realize their professional ambitions in the long run.



Legend: U = use value
€ = exchange value
P = professional value

FIGURE 4.3 Rejecting a project

Counteracting potential professional value slippage largely occurred through firms' attempts to pursue and protect professional value in their projects. Cases of projects in which architects feared that they might not capture sufficient professional value from the use value that they would co-create, or that the co-created use value would eventually harm the firm's previously established professional value, indicate how firms were confronted with the risk of professional value slippage in projects. In these situations, firms used the rejecting strategy to avoid the slippage of professional value. Without the rejecting strategy, firms would have ended up working on each project that they crossed paths with, even if it did not align with their professional goals. According to the respondents, accepting professional value slippage can seriously damage a firm's reputation and its unique selling points and ultimately destroy its ability to capture financial and professional value in future projects. Thus, although the rejecting strategy prevents any capture of value in one project, it may contribute to a firm's value capture in the long term, which more than compensates for not engaging in the project.

The fact that firms did not generate any income or other value by rejecting a project implies that they needed to have sufficient work within their portfolio and a solid financial basis to be able to engage in the rejecting strategy. In some cases, firms really needed a project to keep their portfolio full and their employees working. In these situations, firms faced the choice of accepting the project and the limited professional value that was associated with it, or dismissing the project and laying off staff to survive as a firm. Examples of firms choosing for the latter, suggest that the rejecting strategy

may be particularly useful for firms that have a clear professional ambition and are willing to face and act upon the organizational implications of following that ambition.

The examples of tactics underlying the rejecting strategy show that firms used the strategy both before the start of a project and during projects. In situations where the created use value clearly outweighed exchange value, rejecting a project along the way resulted in financial value slippage. In this regard, timely go/no-go decisions for projects that are not clearly contributing to the firm's professional goals seem particularly important to avoid losses on financial investments in a project. In addition, taking time to negotiate sufficient professional value and exchange value in a project may also pay off.

§ 4.5 Discussion and conclusion

This research aimed to investigate how project-based firms attempt to capture multiple dimensions of value in projects. Figure 4.4 presents an overview of how architectural firms' value capture strategies for projects largely revolve around responses to value slippage. With the strategy of *postponing financial revenues in a project*, firms attempt to benefit financially and professionally from risking financial value slippage over the course of a project's lifecycle. By *compensating for the loss of financial revenues across projects*, firms accept financial value slippage in a project for the sake of attaining their professional goals, and they compensate for this by ensuring they profit from another project. The strategy of *rejecting a project* shows how project-based firms may refuse to become or stay involved in certain projects to avoid a potential decline in professional value.

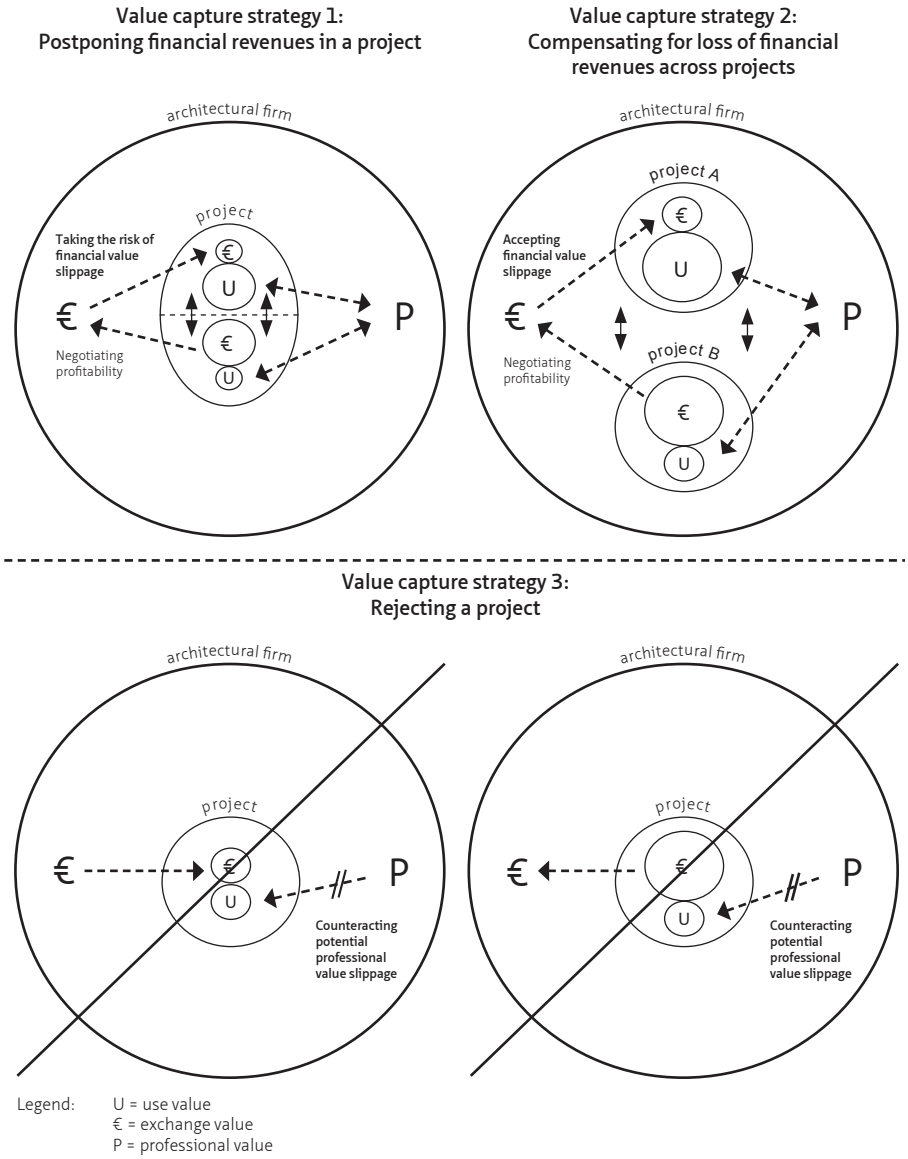


FIGURE 4.4 Overview of value capture strategies

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§ 4.5.1 Contributions

Laursen and Svejvig (2016) and Martinsuo et al. (2017) recently identified the development of theory concerning value capture by project-based firms as an important research avenue, as value capture need to be distinguished from value co-creation (Bowman and Ambrosini, 2000; Lepak et al., 2007; Pitelis, 2009) and there are very few insights into the actual value capture of project-based firms (Laursen and Svejvig, 2016). Our work offers two important contributions to this area.

First, our study adds to the understanding of value creation and capture in projects (e.g. Artto et al., 2016; Laursen and Svejvig, 2016; Matinheikki et al., 2016) and project business (e.g. Artto and Kujala, 2008; Artto and Wikström, 2005; Kujala et al., 2010) by providing an extended and more nuanced conceptualization of value slippage. Although the notion of value slippage has, thus far, been used to refer to losing out on financial value, which should be avoided by firms (e.g. Chang et al., 2013; Lepak et al., 2007), our results indicate that value slippage has a more elaborate meaning in project business. We found that firms may also encounter issues of professional value slippage in their work, which led us to distinguish between 'financial value slippage' and 'professional value slippage'.

Our study shows how distinguishing between different types of value slippage and acknowledging that these can be both harmful and beneficial for a firm would be particularly useful to develop a better understanding of the complex and dynamic value-related processes that characterize projects, in particular when project-based firms face tensions between pursuing multiple strategic goals that require the capture of monetary, professional and/or social values. While respondents considered professional value slippage detrimental to their firms' long-term performance, financial value slippage was often perceived and even found to be beneficial to firms.

Second, the value capture strategies and embedded responses to value slippage highlight three areas in which project-based firms need to navigate between the project and the firm: value dimensions, firm portfolio and time. With regard to value dimensions, our results underline the important influence that professional value has on the value capture of project-based firms and thereby add additional insights to earlier work in this area (Bos-de Vos et al., 2016). Although existing research on value creation and value capture has started to consider other dimensions of value, such as social wealth (Thompson and MacMillan, 2010) or strategic value (Martinsuo and Killen, 2014), most of the research on value capture merely remains focused on financial revenues and profit generation (Lepak et al., 2007; Pitelis, 2009). Our results underline both the need for, and opportunities to include, multiple dimensions of

value in the study of project-based value capture. While the use of postponing and compensating strategies shows that beneficial outlooks of professional value capture trigger firms to risk or accept financial value slippage in a project, the use of the rejecting strategy shows that negative outlooks on professional value capture can be a deal breaker for engaging in a project.

With regard to firm portfolio, the results reveal that other projects in the firm's portfolio significantly influence and are impacted by the value capture strategies that firms choose to use. This emphasizes the importance of taking into account the portfolio level and study project-based value capture across multiple levels of analysis (Lepak et al., 2007). As firms can only postpone or compensate financial revenues in a project when other projects provide them with a solid financial basis to do so, they should consider their entire project portfolio when deciding on a value capture strategy for a project.

With regard to time, our study shows that value capture evolves over the complete lifecycle of a project. This underlines why it is important to consider the entire project lifecycle when studying value capture, thereby echoing existing work in other areas of project business that has emphasized the importance of a lifecycle perspective (e.g. Artto et al., 2016). The postponing strategy particularly highlights how value capture opportunities in projects may develop in either direction – becoming more interesting or more difficult in time. In some cases, firms were able to acquire prestigious work because of their use of the compensating strategy, revealing how certain value capture strategies may even have effects after a project has been finished.

Building on these insights, we argue that value capture studies in the field of project business can build on, but also need to develop beyond traditional value capture theories that have been developed in the field of strategic management (e.g. Bowman and Ambrosini, 2000; Lepak et al., 2007; Pitelis, 2009). They should include a multidimensional, multilevel and lifecycle perspective in order to arrive at a detailed understanding of project-based value capture processes and the dynamics they involve.

Finally, this study will assist managers and employees of project-based firms to better understand and oversee their value capture strategies in projects. By uncovering how value slippage can be intentionally risked, accepted or counteracted by firms, our results suggest that firms can have an active role in dealing with value slippage. This assists in the development of a more conscious approach to the management of the capture of value in and across projects by raising awareness of the notions of financial and professional value slippage in projects and the potential effects for the firm. Our results further demonstrate that specific attention should be paid to managing the capture and slippage of multiple value dimensions across projects and over time. Repeated attention to the capture and slippage of multiple value dimensions in

projects may help practitioners better oversee the entire scope of interrelated dynamics and arrive at optimal results at the firm level.

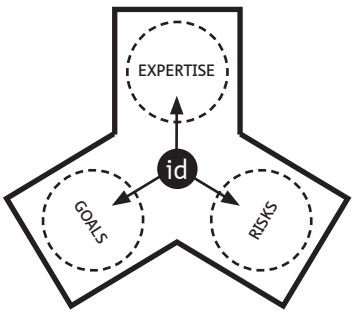
§ 4.5.2 Limitations and directions for future research

Based on the results of our study and the limitations of our methodological approach, we see three interesting directions for future research. First, processual studies (Langley, 2007) that focus on the value capture process over a longer period of time, either at the level of the firm or at the project level, would be highly relevant to increase the understanding of how the value capture of project-based firms evolves over time. By showing how perceptions of potential value slippage represent a thriving force behind the value capture strategies of project-based firms, our work emphasizes the importance of a perspective focused on human action and intention to study value capture processes in project settings (Floricel et al., 2014). A practice perspective (Nicolini, 2009) could not only extend knowledge on actors' value-oriented approaches in relation to the lifecycle of a project (Artto et al., 2016) but also enhance insights into how project-based firms work and capture value in their projects on a daily basis.

Second, although it is important to clearly distinguish between the value that is created and the value that is captured (e.g. Laursen and Svejvig, 2016), studying value creation and value capture processes in their mutually shaping interaction presents a promising framework for gaining new insights into the delivery and capture of value in projects. Work that addresses how value capture opportunities in projects emerge and unfold over various parts of the project's lifecycle, and as a whole, in relation to the value that is co-created by involved stakeholders would contribute to a more detailed understanding of firms' value capture from these projects. The business model concept represents a powerful analytical tool to do so (Zott and Amit, 2013), especially when adopting an ecosystem perspective (Wieland et al., 2017).

Finally, research on value capture by different types of project-based firms or project-led firms (Hobday, 2000) would be highly recommended to determine whether and to what extent our results resonate for other types of project-based firms and for firms that combine projects with other approaches to generate revenues. We suggest a focus on firms that must capture different value dimensions (e.g. monetary, professional and social value) in order to attain multiple strategic goals. Studies around value capture based on a broader conceptualization of value can more profoundly extend or challenge already existing theories on value capture and thereby elaborate theory in ways that both account for and can support the challenges that many contemporary firms face.

5 Constructing project business around professional identity: business model strategizing of architectural firms



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- The 33rd European Group of Organizational Studies (EGOS) Colloquium, 6-8 July 2017, Copenhagen, Denmark.
- The 33rd Association of Researchers in Construction Management (ARCOM) Conference, 4-6 September 2017, Cambridge, the UK, where it was awarded the Best Technical Paper Award.

Abstract

Creative professional service firms experience difficulties in establishing healthy and sustainable business models, as they must reconcile the often competing value systems upon which the models are based. They continuously negotiate between professional values and beliefs and the firm's commercial goals, resulting in struggles between identity and strategy. Adopting a work lens, this study investigates the reciprocal tensions between identity and strategy in 17 business model design workshops with members of architectural firms. Observational data show that practitioners collaboratively construct their business models around professional values, thereby strengthening organizational identity, but constraining innovation in their business models. The research contributes to the body of literature on business model design processes by articulating how professional aspects of identity enable and constrain practitioners in shaping and being shaped by their strategic actions and decisions.

Keywords

Architectural firms, business model, identity work, strategy-as-practice, strategy work, value capture.

§ 5.1 Introduction

Creative professional service firms continuously deal with tensions between identity and strategy, as they operate on the basis of a professional and a commercial value system and therefore pursue multiple strategic goals. Unlike many other types of firms, their strategic focus extends beyond profit and efficiency to include professional goals such as reputation (Greenwood et al., 2005). However, professional and commercial goals often conflict with one another, which can result in strategic tensions and tensions in organizational identity (Foreman and Whetten, 2002). Because organizational members identify with different social groups – such as the organization, the inter-organizational project team and the profession – and the values and beliefs of each may be in conflict, they are likely to experience different identity tensions (Vough, 2012). Identity-strategy tensions complicate the creation and maintenance of healthy business models. It has been found, for example, that architectural firms regularly prioritize professional value over monetary value, as the

architects of these firms attempt to be good professionals (Bos-de Vos et al., 2016). Thus, organizational outcomes can suffer from the identity-strategy tensions that firms encounter.

A better understanding of the relationship between strategy and identity seems crucial to unravelling the dynamics involved in business model strategizing processes and in the outcomes of creative professional service firms. Oliver (2015) argues that identity and strategy practice mutually shape each other. Strategy enacts identity claims and may also lead to changes in the identity of organizations or organizational members (Oliver, 2015). Although strategic organization scholars have increasingly called for more consideration of identity work in strategy research (Jarzabkowski and Spee, 2009; Oliver, 2015), empirical studies on how identity and strategy influence each other in the context of business model strategizing remain limited. Creative professional service firms are also under-studied in strategy research, despite the fact that the importance and distinctive nature of the creative industries and professional service field are widely acknowledged (e.g. Hinings et al., 2015; Jones et al., 2016). This might be attributed to the reluctance of creative professionals to think in strategic terms because of their strong professional ethos and creative needs (Winch and Schneider, 1993). Nevertheless, creative professional service firms represent an interesting field in which to study the relationship between identity and strategy in business model strategizing, as the strategic actions and decisions of organizational members are inseparably connected to their professional duties and commitment.

In this study, we investigate how identity-strategy tensions play a role in business model strategizing processes within architectural firms. Looking specifically at group interactions during 17 business model design workshops in Dutch architectural firms, we address the following research question: *How do members of architectural firms negotiate identity-strategy tensions in their business model designs, and how do their business models impact on existing identity claims*? A 'work lens' (Phillips and Lawrence, 2012) was adopted to investigate the links between the actors' strategy work and identity work. The study contributes to the literature on business model design proocesses by improving the understanding of how the micro actions of individuals and groups in creative professional service firms shape the business model designs of the projects towards which those actions are directed and to which they contribute (Jarzabkowski and Spee, 2009). The study also enhances the understanding of how firms deal with paradoxical tensions in their strategy-making (Jarzabkowski et al., 2013). Practical implications can be derived from the insights into the tensions that members of creative professional service firms experience when constructing business models in practice and how these are dealt with. These insights support attempts by practitioners to improve their business model strategizing activities.

§ 5.2 Theoretical background

§ 5.2.1 Identity work in organizations

Identity is a multilevel construct that can be understood as the self-concept of an individual or social group (Ashforth et al., 2008). It 'is a self-referential description that provides contextually appropriate answers to the question "Who am I?" or "Who are we?"' (Ashforth et al., 2008, p. 327). The shared belief among organizational members about the organization's central, enduring and distinctive characteristics is what defines organizational identity (Albert and Whetten, 1985).

Although identity has often been conceptualized as 'stable' (Albert and Whetten, 1985), scholars increasingly emphasize the socially constructed and fluid nature of identity (e.g. Gioia et al., 2000; Ibarra, 1999). According to Alvesson et al. (2015, pp. 3-4), identities 'are constituted, negotiated, reproduced, and threatened in social interaction, in the form of narratives, and also in material practices'. Identification is an ongoing process in which relationships between the self and group are continuously negotiated (Ashforth et al., 2008). Identities thus require a sustained effort to be constructed and maintained. The concept of 'identity work' captures the dynamic nature of creating a sense of self in relation to the environment in which one is embedded (Phillips and Lawrence, 2012; Sveningsson and Alvesson, 2003). It 'refers to people being engaged in forming, repairing, maintaining, strengthening or revising the constructions that are productive of a sense of coherence and distinctiveness' (Sveningsson and Alvesson, 2003, p. 1165). Identity work links individual agency with the broader social context (Kreiner and Murphy, 2016). On the one hand, individuals are influenced by the norms, opportunities and constraints of the broader social structure, and on the other hand, individual feelings, thoughts and behaviours collectively build, change or even transcend social structures (Kreiner and Murphy, 2016).

As individuals and groups occupy positions in many different networks of relationships, they maintain different social identities at the same time (Stryker and Burke, 2000), often causing identity struggles or conflicts. In the context of organizations, the existence of multiple social identities encourages identity work at and across different levels, including the individual, group and organizational levels. Previous research demonstrates how certain kinds of organizations – often referred to as hybrid-identity organizations – have different and possibly competing organizational identities

(Foreman and Whetten, 2002). Creative professional service firms are exemplary of these kinds of organizations, as they are constituted on the basis of two seemingly opposed value systems. The professional value system emphasizes traditions, the internalization of an ideology and altruism, while the commercial value system is characterized by economic rationality, maximization of profits, and self-interest (Foreman and Whetten, 2002, p. 621).

Organizational members of creative professional service firms employ discursive, cognitive and behavioural processes to individually or collectively create, sustain, share or change the organization's identity in relation to the profession or market (Kreiner and Murphy, 2016). At the individual and group levels, organizational members' identification with different groups forms the arena in which people negotiate their sense of self vis-à-vis their environment. As Vough (2012) argues, individuals in creative professional service firms strongly identify with their workgroup, organization and profession, the values of which can be mutually reinforcing or conflicting. Identity tensions thus play an important role in creative professional service firms at multiple levels.

§ 5.2.2 Relationships between identity work and strategy work

The relationships between people's identities and their strategizing activities has gained increased attention in management research (Johnson et al., 2010). Recent research has emphasized that identity and strategy have a mutually shaping relationship (Oliver, 2015). Actors enact identity claims in their strategizing activities, and their strategizing processes may also lead to changes in their own identities, those of their group, or those of their organization (Oliver, 2015). Research avenues for studying the reciprocal relationship between identity and strategy seem especially connected to the strategy-as-practice (SAP) perspective (Jarzabkowski and Spee, 2009; Vaara and Whittington, 2012). SAP scholars consider strategy something that organizational members do, and not just something that an organization has (Whittington, 2006)(Jarzabkowski & Spee, 2009; Whittington, 2006). A strong process orientation helps SAP researchers to provide important, context sensitive insights into how practitioners are enabled and constrained in their strategic actions and decisions by wider organizational and/or social practices (Vaara and Whittington, 2012). Strategizing thus refers to the 'doing of strategy' (Johnson et al., 2003). Strategizing research explicitly focuses on the human activity that is involved in strategy by studying the 'actions and interactions of multiple actors and the practices that they draw upon' at the intersection of praxis, practices and practitioners (Jarzabkowski et al., 2007, p. 8).

In line with the 'turn to work' in management research, Phillips and Lawrence (2012) emphasize the importance of studying different forms of 'work' in relation to strategizing. A work lens helps to look beyond the day-to-day work of organizations by focusing on the 'goal-directed efforts' that actors individually or collectively use 'to manipulate some aspect of their social-symbolic context' (Phillips and Lawrence, 2012, p. 227). The lens thus makes a connection between what actors are doing to influence their own paths (action), why they are doing this (intention), and what the consequences for the organization are (outcomes). Considering how actors involved in strategizing are constrained and enabled by their context and how this in turn influences organizational outcomes is recognized as important to further advance the strategy-as-practice field (Jarzabkowski and Spee, 2009). Explicitly calling for more 'cross-work' related research, Phillips and Lawrence (2012) argue that scholars can significantly enrich the understanding of strategic organization by becoming engaged in how individuals and organizations purposefully relate their activities and decisions to their surrounding contexts with different forms of work.

Building on the definition of strategy work as 'the purposeful activities carried out by actors in the production of strategies' (Phillips and Lawrence, 2012, p. 225), in this paper, we specifically examine tensions that arise from the interaction between actors' identity work and strategy work.

§ 5.2.3 Business model strategizing

Value capture represents an area of strategic decision-making in which identity-strategy tensions are particularly salient for creative professional service firms. Value capture decisions of creative professional service firms are aimed at generating profit, but also at realizing a certain amount of professional value professional goals (Bos-de Vos et al., 2016). As the professional goals of creative professional service firms do not always align with their commercial goals, value capture strategizing can be a challenging process.

Business models can be helpful tools in the strategizing process. A business model comprises a multitude of interrelated strategic decisions, including decisions about customer value propositions, necessary resources and partners, suitable cost structures and revenue streams (Zott et al., 2011). By representing an organization's essential value creation and capture activities in an abstract and reduced form, business models can serve as 'cognitive devices that mediate between managerial thinking and engagement in economic activities' (Aversa et al., 2015, p. 2). Good business model designs are important for firms, as they help to build and maintain a competitive

advantage (Teece, 2010). Although the business model literature offers substantial knowledge about how business models work or are innovated, relatively little is known about how business models are crafted in practice (Rumble and Mangematin, 2015), or how this process is influenced by tensions between identity and strategy. This research addresses this gap in the literature by examining how identity-strategy tensions play a role in the business model strategizing of creative professional service firms.

§ 5.3 Research approach and methods

To capture the reciprocal tensions between identity and strategy in the business model strategizing of architectural firms, we opted for a process research design (Langley, 2007) that allowed us to observe interactions in concentrated modes of strategy-making (Jarzabkowski and Spee, 2009). We chose to organize business model design workshops in multiple architectural firms. This enabled us to develop a better understanding of business model strategizing in creative professional service firms, of which extremely little is still known, and to see how this process is impacted by identity-strategy struggles.

§ 5.3.1 Empirical setting

Architectural firms provide an interesting empirical context for studying the relationship between identity and strategy practice, as firms and their members always pursue multiple goals and identify with multiple targets (Vough, 2012). Architectural firms generally employ multiple business models, as they predominantly work in temporary project settings that all have unique environmental contexts (Wikström et al., 2010). Each individual project thus requires a slightly different strategy and business model. Firms are often relatively small and predominantly organized as partnerships or private corporations in which professionals dominate the decision-making hierarchy (Greenwood and Empson, 2003; Pinnington and Morris, 2002). Due to their strong professional ethos, strategic decisions are always taken against the backdrop of professional beliefs. A strong service orientation, the desire to deliver something to society and an urge to do something artistically distinct are generally considered important professional values for architectural firms (DeFillippi et al.,

2007). However, these professional values often jeopardize the pursuit of commercial interests (Bos-de Vos et al., 2016). Identity-strategy tensions are thus inextricably linked to the business models designs of architectural firms.

Due to the background of the authors, we chose to study business model strategizing by Dutch architectural firms. In the Netherlands, many architectural firms currently struggle to maintain viable business models, as the sector suffered severely from the global economic recession. Between 2008 and 2015, firms saw their turnover decrease by nearly 50% (Vogels, 2016). Many of the surviving firms are now looking for ways to regain or enhance their competitive advantage and to become more sustainable, sometimes by altering their service delivery and professional identity. Thus, both identity and strategy are topical issues for Dutch architectural firms.

§ 5.3.2 Sample

We used the purposeful sampling technique of maximum variation (Patton, 2005) to obtain our research sample. We wanted the sample to cover different types of architectural firms so as to investigate whether the business model strategizing process would be different for firms of different age, size or leadership positions (Hart and Quinn, 1993; Mintzberg, 1979). This resulted in 17 diverse architectural firms (see Table 5.1).

FIRM	FOUNDED IN	ANNUAL TURNOVER (€)	NO. OF EMPLOYEES	NO. OF ARCHITECTS	NO. OF OWNERS	NO. OF DIRECTORS
A	1955	2,000,000	25	13	2	2
B	2015	300,000 (2015)	9	3	4	4
C	1953	1,400,000	13	3	5	3
D	1931	14,000,000	106	33	10	10
E	2015	12,000 (2015)	2	1	1	1
F	2006	3,000,000	55	30	4	1
G	1956	500,000	6	2	1	1
H	2013	4,000,000	45	30	3	3
I	1914	1,000,000	9	5	3	3
J	1973	not available	60	45	3	2
K	1979	6,500,000	70	35	4	2
L	1988	4,000,000	50	12	5	5
M	1933	3,000,000	31	10	5	5
N	1968	6,000,000	75	25	4	2
O	2004	400,000	4	3	1	1
P	1993	6,000,000	165	155	3	3
Q	1985	3,300,000	43	49	9	2

TABLE 5.1 Firm selection

§ 5.3.3 Data collection

Data were collected over a period of two months, during which we organized business model design workshops in 17 different firms. The 17 workshops were all conducted by the same two researchers, including the first author, to ensure robustness. One researcher acted as the moderator, while the first author had a participatory observant role and kept track of the process, decisions and outcomes of the workshop in an event log. The workshops were video-recorded entirely and further documented with photographs. We used a group setting to enable participants to interact with each other and ask specific questions that might reveal aspects of their struggles. Group dynamics can reveal insights that are difficult to attain in individual interviews (Balogun et al., 2003).

The format for the workshop was developed to be similar to each firm's regular strategy meetings on a structural level, with the aim of enhancing the credibility of the results; as well as being similar to each other on a content level to allow cross-

case comparisons. To achieve the desired similarity between the workshop and the firms' regular strategy meetings, we collected the data at each firm and asked the management of each firm to select the participants of the sessions. The groups of participants ranged between 2 and 7 people. In one workshop at a small firm, only one person participated. Of 47 participants, 23 were owner-architects (i.e. senior managers), 3 were architects and members of the management team (i.e. middle managers) and 9 were architects (i.e. employees). In total, 12 of the 47 participants had a technical background or background in business, of which 6 were owners (i.e. senior managers) and 3 were members of the management team (i.e. middle managers). At the beginning of the workshop we asked each firm to select a new or recently started project as the topic of discussion to ensure actual strategizing.

To achieve content similarity across the different workshops, we chose to use precisely the same methodology for each workshop. In each session, we hung a large poster with a project-oriented business model design framework on the wall and used this framework as a cognitive mapping tool (Ambrosini and Bowman, 2001). The framework was specifically developed for architectural firms in a previous study (Bos-de Vos et al., 2017), on the basis of business model and project governance literature, field reports and interviews with Dutch architects and clients. The participants were given post-its to fill in the framework. This process was divided into nine steps, which successively paid attention to the firm's value proposition, value capture goals, activities, risks, resources, partners, costs, revenue model and agreements in the project. The workshops all started with an introduction, in which we presented the framework and explained each step with examples of possible answers.

After the workshop, the participants were asked to reflect on the strategizing process. They were asked about the decision-making process during the meeting and the outcomes of it. Firm-specific and project-specific information were also gathered for triangulation purposes.

§ 5.3.4 Data analysis

The data analysis consisted of four iterative steps. We used the software program MAXQDA as a supporting tool. In the first analytical step, the strategizing process of each workshop was thoroughly analysed by replaying videos and on the basis of the event log. We further refined the observational data in our event logs and added additional detail with specific quotes.

In the second step, we coded instances of identity work in the observational data. We particularly focused on the purposeful efforts of actors to form, repair, maintain, strengthen or revise their sense of self vis-à-vis the surrounding contexts of the group, the organization, the inter-organizational project team and the profession (Phillips and Lawrence, 2012; Sveningsson and Alvesson, 2003).

Third, we searched the data for different forms of strategy work. We coded all the efforts that actors engaged in to arrive at a business model design. The framework that participants filled in during the meeting was used as a reference frame for the strategic decisions that were taken during the meeting.

Our fourth analytical step aimed to locate specific interactions in which identity work and strategy work were strongly interrelated. This revealed two preliminary strategic topics around which the identity-strategy link was highly salient: 1) the choice of the project that was discussed in the meeting, and 2) the question of whether or not to innovate the firm's business approach for the particular project.

In the final step, we aimed to identify overarching patterns related to identity and strategy in the data of the different workshops. We closely examined the different identity-strategy interactions that were found along the spectrum of what actors were doing (action), why they were doing it (intention) and what the consequences for the organization were (outcomes) (Phillips and Lawrence, 2012). The outcomes of our analysis will be discussed with practitioners for validation and authorization purposes.

We used strategizing episodes from the workshops at two firms, ARCADE and A-COMP, to present and discuss the findings of our study. The ARCADE and A-COMP workshops were chosen as examples because they represented the core aspects of the interaction that we observed in different strategy workshops.

§ 5.4 Findings

§ 5.4.1 What are the actors doing?

Identity-strategy reinforcements: Enhancing competitive advantage and strengthening organizational identity

STRATEGIZING EPISODE 1A: ARCADE

While Alan, an owner-architect, is quietly contemplating the framework hanging on the wall, office manager Leon thoroughly explains that what they are doing in the project can be further abstracted to what they want to do as a firm. 'How do we as an office make sure that we acquire the portfolio that we want to work on?' He argues that although his organization's established 'stature' in the field previously generated the public work that employees were willing and happy to work on, they now had to adopt a more active attitude to gain this kind of work. Alan seems to agree completely. He walks back to his chair with a neutral facial expression. Alan and Leon both acknowledge that the 'public work' that they have extensive experience in is simply becoming less available over time, which is forcing them to enter a new market segment.

The episode above illustrates how strategy and identity were often interwoven during the workshops. The question: 'How do we as an office make sure that we acquire the portfolio that we want to work on?', demonstrates that the actors chose to discuss projects not only with respect to gaining future work, thereby ensuring organizational continuity; the projects also needed to fit the organization and the professional beliefs of organizational members. Actors saw the project discussed as an intermediary between strategy (i.e. what they wanted to do to enhance their competitiveness) and identity (i.e. what they wanted to represent as a team of professionals). The strategy-related discussions brought to the fore that organizations did not want to just take on any type of project. Strategy work helped the actors to reaffirm who they were and what they stood for as an organization, thereby strengthening their professional identity.

Regarding this identity, we often observed a strong consensus between the actors. Alan's calmness and neutral facial expression during Leon's explanation, for example, illustrate that Leon's narrative is something that they have discussed before and which has developed into a shared understanding. Similar situations were observed in other meetings. This strong organizational identity also seemed to influence the strategy work that the actors engaged in to enhance their commercial position. It was because of their strong professional identity that firms decided to engage in the projects discussed. Actors perceived the chosen project as a perfect representation of who they were or who they wanted to be. They also felt that the project would represent work that was attractive to their people. Participants thereby saw the project as a way to further express their organizational identity in the field and to demonstrate what they stood for as a team of professionals.

The styles of referring to organizational identity differed. While the participants from some firms repeatedly told each other (and us) what they considered to be the most distinctive characteristics of their organization, others did not do so explicitly. In the latter situation, participants merely nodded and agreed when, for example, one of them explained how a client had requested the firm based on its specific expertise.

STRATEGIZING EPISODE 2A: A-COMP

Hesitant that he had not yet discussed it within the team, urban planner and founder Roy formulates: 'The project aligns well with what we do'. His statement echoes something that his colleague David, also an urban planner and partner in the firm, pointed out at the beginning of the meeting. David had subtly laughed when he said: 'Our ambition is to become the twenty-first century Berlage1, maybe we already are'. David specifically compared his firm to Berlage because of the way in which his organization integrates urban planning and architectural design. Roy, David and Hugo (another owner-architect) all seem to agree that this is exactly how their firm distinguishes itself from many other Dutch offices. Although they indicated that they had not talked about this project prior to the session, they almost naturally seemed to agree that this project would be the perfect way to propagate their firm's distinctiveness.

1 Hendrik Petrus Berlage, a famous Dutch architect (1856-1934), had a huge impact on urban planning. His town planning work in Amsterdam and his plan for Amsterdam South inspired generations of architects and urban planners to improve social housing conditions, beginning at already the urban design level (Mumford, 2002).

In episode 2a, the actors agree that it is the integration of architecture and urban design that makes them the professionals who they are and who they want to be. By making the analogy with a famous architect, they further explicate what they mean. They explicitly link their identity work to strategy work by identifying this aspect of their organizational identity as a distinctive feature in relation to other architectural firms. They recognized a competitive advantage within their organizational identity, which they wanted to use in the project. 'The project aligns well with what we do', suggests that the actors perceive the project as a perfect match with their professional values and the goals of their organization and its members, and therefore as an interesting business opportunity. Episodes 1a and 2a both show how identity and strategy are mutually reinforcing.

Identity-strategy negotiations: waiving commercial alternatives to safeguard professional identity

Many of the strategy processes that we observed also highlighted how identity work framed or even constrained the group's strategy work. The tensions between strategic aims and professional identity were often surprisingly quickly 'resolved' by the practitioners. It was remarkable to see how commercial alternatives were often disregarded or communicatively dismissed because of professional beliefs. Episode 1b provides an example:

STRATEGIZING EPISODE 1B: ARCADE

While considering which revenue models would be appropriate for the project, Alan almost immediately points out that his organization uses two types of revenue models: a fixed fee or an hourly based fee. He mentions that the fixed fee is the most attractive because it allows his firm to make money because his team can produce a design very quickly. Leon agrees and emphasizes that, in this particular case, the second model (an hourly based fee) could also have its benefits, especially because of the uncertainties that may be associated with the existing real estate that they have to deal with in the project. After a quick comparison of the two, Alan and Leon unanimously decide that there is no real desire to go for the second option and that the fixed fee model would do just fine in this project.

This episode shows how many participants discussed strategic options based on familiarity and previous experiences. The projects that were discussed, however, often included features that were considerably different from previous business. In the example, it is Alan's and Leon's first time working for a private, profit-oriented client rather than a public commission. Thus, the project is very different from their former projects. From a commercial perspective, this could provide an interesting opportunity to explore alternative revenue models. Nevertheless, the actors and many of their colleagues in similar situations did not consider other strategic options.

Participants who did consider strategic alternatives during the session, often communicatively dismissed these after some deliberation. This is illustrated in Episode 2b:

STRATEGIZING EPISODE 2B: A-COMP

'If you realize that assignments change rapidly, the world changes, do you then need other kinds of people? And if this was the ultimate new project, what would you then need? Would you need a social geographer for example?' Hugo asks these questions to his partners to explore whether it would be fruitful to innovate the firm's business model design approach in the project by hiring new people or attracting specific partners. While David frowns heavily, Roy says: 'I can image it would make sense, although I don't really know what it would bring us'. After Roy initiates a not so relevant pronunciation discussion, David states that 'It's probably nice to experiment, but it's not absolutely necessary to bring this to a successful end; actually, I would consider it a risk'. Roy agrees with a simple 'yes'. Then, David further elaborates and explains that the project is mainly interesting for him because it really fits all the knowledge and expertise that they have in-house. 'I would kind of like to experiment in another project, with other experts, but not in this project that is so important'. Although Hugo's body language (sulking and moving his hand) suggests that he does not entirely agree yet, he follows his companion by saying, 'No, that could be [done]'.

The type of discussion illustrated in Episode 2b characterized the strategizing process of many sessions. The episode shows how the three actors from A-COMP become involved in a discussion about resources and partners, as possible business innovations for their project. The participants in our sample often engaged in these kinds of lively

debate on possible business innovations because one of the actors triggered such a discussion. In some sessions, the discussion was characterized by an extremely friendly and collaborative atmosphere in which participants traded ideas back and forth or asked each other questions, such as: 'Are we going to maintain our original offer or are we going to do it differently?' The discussions in other sessions were more heated, with questions such as: 'Is this really what we want?' or 'Are we actually able to do this?', directly linking the strategic alternative to the identity of the firm.

§ 5.4.2 Why are the actors doing this?

The examples above are illustrative of how a large majority of the architects avoided the exploration of commercial options during the workshops. This might partly be explained by a lack of knowledge among the participants. Apart from some individuals who expressed a clear interest or expertise in the business side of their work, the participants often seemed unaware of what a revenue model was exactly, or the different types of revenue models that could be used. An owner-architect, for example, explicitly stated that 'I don't have any experience with that; it may partly also be ignorance of which revenue models you can use on projects'. Episode 1c illustrates another reason for the participants' disregarding commercial alternatives.

STRATEGIZING EPISODE 1C: ARCADE

It is only after the moderator's intervention that Alan and Leon start to discuss other options that could be financially attractive. They immediately agree that this project is just not suitable for innovative revenue models. Talking about a fee based on the sales price of the real estate to be developed, they both continue to shake their heads and Leon summarizes that it would not enable them to work with the enjoyment and enthusiasm that they aim for. He argues that it does not fit their firm's intentions to design something that is commercially attractive. Chuckling, Leon says to Alan: 'I think we have quite a strong opinion about things that do well in the market: that's not necessarily architecture, it does not fit the signature that we deliver and have'.

This episode illustrates how practitioners feared that new revenue models would jeopardize their professional duty towards the client or society, or would be detrimental to their own professional fulfilment. Leon's call for enjoyment and enthusiasm in their work is a clear example of the latter. The interaction between Alan and Leon reveals that the two individuals have a strong shared belief about what the end result of their architectural work should be, which, in their opinion, is not in line with what people are currently willing to pay for. Their interaction thus suggests that the firm's professional service is not suitable for commercial optimizations.

Other observations underline how the professionals feared that the core values of their architectural work would not remain intact if they engaged in other, more commercial revenue streams. An owner-architect, for example, stated that even if he had the money, he definitely would not want to co-finance the project. Direct commercial ties to the project were not considered lucrative by firms, as the professionals would then no longer be in a position to comment on the project as independent advisors. In the opinion of many participants, this independence is crucial to guarantee a 'pure' service provision role and thereby to deliver optimal quality of the end-product. Participants argued that a revenue model that allows the firm to profit from product optimizations would give firm members the wrong incentive.

Similar to other participants, Alan and Leon referred to the principles they stood for as a professional organization to justify why they refrained from exploring alternative business approaches to the project. Other examples in which business model innovation was consciously avoided include firms that initiated a project but deliberately did not make any financial agreements with their potential clients. Although participants acknowledged that it would probably have been better to make such arrangements, they argued that it 'might give the wrong signal to the client' and harm their mutual trust.

Episode 2c also highlights how practitioners frequently agree that it is probably not really necessary to innovate their business approach. Referring to the project as one of the most important for his firm, David stated that the project was just not ideal for experimenting. The context in which he makes this remark seems to point both directly and indirectly towards the project's commercial importance. The project is not only needed so they can earn money and run the firm, it is also crucial to ensure future business by further enhancing who they are and what kind of work they do. The risk of jeopardizing their professional reputation by experimenting with new business approaches simply did not outweigh the possible benefits that innovations could have:

STRATEGIZING EPISODE 2C: A-COMP

Referring to a lesson that he once learned from Paul Arden, the creative director of the global communications and advertising agency network Saatchi & Saatchi, David sets forth his business approach for the project. 'Don't ever put your best people on the most important projects. They will go way beyond the client, while less advanced people carry the client along much better'. Hugo responds by referring to something that was said earlier: 'If the client indeed wants this project even more than we do, then you could say, and that is called with a beautiful word "something disruptive", then maybe you do need the best people after all?' David nods fiercely: 'Yes, then in that case maybe we do'. While Roy is frowning, David already starts to back down from his previous statement. He argues that there is still a risk that a less conservative approach would not be appreciated by the client's client. While focusing the discussion on the issue that they are considering – whether or not to approach a partner for the project – Hugo starts reasoning: 'Do you search for someone to add to the project?, but more importantly: What do you want to add to the project? A social geographer or an artist or a philosopher is not that interesting, but what we increasingly consider important is that we can create an interesting story besides the actual assignment. […] Can we create that story ourselves? Yes, I also believe we can'. Based on his reasoning, Hugo acknowledges that the project won't necessarily become better by involving more people. Roy adds: 'I really get itchy around that philosopher, so to speak'. And David finishes the discussion: 'You don't want to experiment with your team when you're in the Champions' League'.

The episode highlights how, during the process of considering commercial alternatives, practitioners come to a mutual understanding based on different professional reasons that are put on the table. Although Hugo continuously brought up ideas for alternative business approaches, including, for example, hiring new people with distinctive knowledge and skills, Episode 2c shows how he and his partners decide to place their trust in the strength of their own proven practices. As the example illustrates, practitioners want to provide their client with the business approach that best fits the project. They themselves also have to feel comfortable with this. Collaborating with a philosopher, for example, seems clearly out of Roy's comfort zone. As the three actors gradually discover that they already have the knowledge and skills to provide the service that would be in the client's best interest, they decide that it is not necessary, and could even be harmful to alter their established way of doing business.

§ 5.4.3 What are the consequences for the organization?

The observations illustrate how identity and strategy played a mutually shaping role during the process of business model design in two ways. First, we found how strategy work helped practitioners to strengthen their organizational identity during business model design. The interaction among participants helped them to put identity on the table and to contrast their specific organizational identity to that of other organizations. While pondering strategic options, actors made explicit what they wanted to represent as professionals, thereby reinstating or strengthening their shared understanding of their organization's central, enduring and distinctive characteristics (Albert and Whetten, 1985). In many of the situations, the professional identity of participants seemed surprisingly well aligned. Even actors who were not educated or trained as architects, such as office managers or owners with a non-design background, exhibited a strong sense of professional belonging. This reveals how the organizational identity of an architectural firm is inextricably linked to the professional identity of its members.

Second, the observations also show how practitioners used identity work to frame their own strategies during the process of business model design. The data provide evidence that actors continuously relate their strategic options and decisions to the values and beliefs that they have as professionals. Because of their strong professional identity, practitioners often waived commercial alternatives, thereby constraining the strategic options that might be suitable. We found evidence that a similar framing also occurred prior to the workshop. Although the projects discussed had only recently started or still had to be initiated, the firms' business model designs were often largely already crystalized. This became apparent through the way in which actors discussed the project in retrospect and/or gave many explicit examples of decisions that had already been made.

Whether the framing of the strategizing process is a good thing or a bad thing with respect to organizational outcomes is an interesting question. On the one hand, the practitioners' framing allows the organization to avoid risks, as they can simply follow the business approach that they had successfully used in many other projects. A context in which the professional organization is valued because of its services and approach would be an ideal environment for this risk-adverse behaviour. On the other hand, this seems to make organizations additionally vulnerable to constraints coming from outside, such as unexpected budget cuts or unforeseen difficulties in the relationship with other organizations. As Vough et al. (2013) argue, professional services are increasingly devalued and contested. When operating under such conditions, organizations often have to fight for a desired role in the collaboration with other organizations (Lieftink and Bos-de Vos, 2017). They can either attempt to

claim the role they desire by demonstrating their professional expertise; or change their business approach and, consequently, also their organizational and individual members' identities to acquire a role in new ways. Professionals who do not want to change their identity might benefit from communicating their strategic decisions and underlying rationale to the other actors involved, so that they become aware of why it is so important to use a traditional revenue model or to avoid interference by partners.

§ 5.5 Discussion and theoretical implications

The aim of this paper was to develop an understanding of how identity-strategy tensions play a role in the business model strategizing processes of actors who have to negotiate multiple strategic goals and different identities. As the goals and identities of organizations become increasingly diverse and dynamic, more empirical insight into the business model strategizing process within firms that are used to operate under such challenging conditions seems highly relevant. In this paper, we adopted a 'work lens' (Phillips and Lawrence, 2012) to investigate the strategizing processes within architectural firms with particular attention paid to the tensions that coevolved from the relationship between identity and strategy. Looking at 'identity work' and 'strategy work' enabled us to ascertain common identity-strategy ties and to investigate how identity-strategy tensions were handled by different groups of actors. Our study highlights how members of architectural firms collaboratively deal with identity-strategy issues in their strategy-making and influence their multiple (shared) identities with their strategic decisions. This improves the understanding of how the professional identities of groups of organizational members both shape and are shaped by the business models they use, thereby contributing to the literature on business model design processes (Aversa et al., 2015; Baden-Fuller and Mangematin, 2015). Our findings are of significance to this body of literature in three ways.

First, our analysis highlighted strong identity-strategy ties throughout the entire process in all workshop sessions, including instances in which identity shaped the strategic actions of actors; instances in which strategizing shaped the identity of the actors and/or the organization; and instances in which the relationship between identity and strategy was reciprocal. Our empirical data complement earlier work on the relationship between identity and strategy (e.g. Oliver, 2015). However, we also demonstrated the importance of using a 'work lens' (Phillips and Lawrence, 2012) to study organizational strategizing and to highlight the importance of cross-work related research to develop a better understanding of the dynamics that are involved

in organizations with multiple strategic goals and multiple identities. Although this study only focused on the link between identity work and strategy work, we found many connections to other types of work, such as 'values work', 'boundary work' and 'institutional work'. We therefore strongly agree with the suggestion of Phillips and Lawrence (2012) to address relationships between different forms of work in future strategic organization research.

Second, the findings demonstrate the importance of examining the context in strategic organization studies. Our findings illustrate how the strong professional identity of the actors helped them to shape their strategic decisions throughout the entire strategizing process. The sessions that were dominated by discussion revealed how the participants used their professional identity to quickly determine whether a commercial option would be interesting or not. The sessions that were characterized by immediate consensus revealed how participants were entirely in agreement about who they wanted to be and what they wanted to do. These participants simply did not need words to make decisions. The data thus provide evidence of how actors continuously relate their strategic options and decisions to the values and beliefs that they have as professionals, thereby framing their own strategizing process. Although the practitioners were all used to being creative in their work, creativity in their business approaches seemed limited and further constrained by their strong professional identity. This shows that the professional context highly influences the strategizing of creative professionals and the outcomes for their firms. It supports the idea that although actors are able to influence their own paths, they always carry with them the enabling and constraining factors of the context that they are embedded in and with which they identify (Phillips & Lawrence, 2012).

Third, we found how strategizing helped the participants to discuss and further strengthen their organizational identity. The interaction among participants helped to put identity on the table and to contrast their specific organizational identity to that of other organizations. This in turn helped the groups to further explicate their own competitive advantage in the project and the most suitable business approach. While pondering strategic options, actors expressed what they wanted to represent as professionals. In many of the situations, the professional identity of participants seemed surprisingly well aligned. As we saw, even actors who were not educated or trained as architects, such as office managers or owners with a non-design background, shared the strong sense of professional belonging that characterized their colleagues. This reveals how the organizational identity of creative professional service firms is inextricably linked to the professional identity of their members. It demonstrates the importance of considering individual identity in strategic organization research, especially in highly institutionalized environments.

§ 5.5.1 Practical implications

As mentioned above, although the practitioners involved were used to being creative, creativity during business model strategizing seemed limited and further constrained by their professional identity. This shows that the professional context highly influences the strategizing of professionals and the outcomes for their firms. It also suggests that practitioners who wish to determine healthy business models need to pay more attention to unravelling the benefits and threats of the surrounding context during business model design to respond to these in ways that align with both their professional identity and commercial goals.

The feedback that we received at the end of the strategy meetings showed that the practitioners involved were not used to strategizing in a systematic way. Many participants described their regular strategizing activities as 'ad hoc', and 'sporadic'. Participants were, however, surprisingly enthusiastic about the structure that was provided. Although some people explained that the way in which the strategy workshop was organized would just not work for their organization – being too time-consuming, or because the firm leaders would go their own way – a majority of participants argued that the workshop had clarified relationships and tensions that they normally do not consider in depth. This shows that creative professional service firms may benefit from more structured strategizing on a regular basis.

§ 5.5.2 Boundary conditions and directions for future research

Based on the boundary conditions and limitations of our study, we highlight two avenues for further research that we consider especially relevant. First, we chose to organize the strategy sessions on the basis of a structured workshop format to examine the same aspects of strategizing in multiple organizations and to explore if and how the strategizing processes in these organizations differed. As the sessions differed from the firms' actual day-to-day strategizing, we would like to encourage researchers to further investigate business model strategizing processes in creative professional service firms on a daily basis. A process approach (Langley, 2007) would be extremely helpful to study the evolution of these processes in relation to interim and final outcomes for the organization.

Second, the results that are presented in this paper are based on data that were gathered at architectural firms. Architectural firms are characterized as 'classic'

professional service firms because they reflect the archetypal view of professions, which includes ideology and self-regulation (Von Nordenflycht, 2010). Practitioners are educated to be architects in architectural schools and further trained to be a professional in their jobs. Similar to medicine and law, it is a licensed profession. The high degree of institutionalization evokes a strong sense of belonging among members of the profession. Architectural schools, for example, teach students certain ideologies on the basis of historical role models. As we found, the professional identity of firm members highly influences their business model strategizing processes. To generate a more general understanding of the interplay between identity and strategy in business model strategizing by creative professional service firms, it would be interesting to investigate how professional identity plays a role in the strategizing processes undertaken by creative professionals in less institutionalized or more recently emerging fields, such as industrial design and game design. Do actors in firms that operate in these sectors demonstrate more creativity in their strategizing processes as they feel less constrained by professional norms, or is there a general lack of need or desire for it in the creative industries, and if so why?

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PART 2 Design-oriented research

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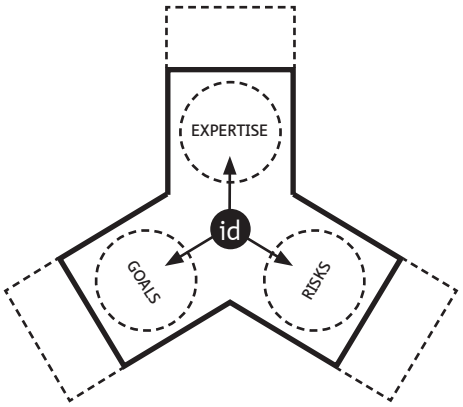
6 A toolkit for developing project-specific value capture strategies



The value capture toolkit in this chapter was developed in close collaboration with the futurA research team and consortium partners. It is also included in the practice-oriented book *Future roles for architects: an academic design guide*, which was published as a limited edition in Dutch and is freely available online in both Dutch (https://books.bk.tudelft.nl/index.php/press/catalog/book/627) and English (https://books.bk.tudelft.nl/index.php/press/catalog/book/628). Preliminary versions of the toolkit were presented and discussed at:

- The Professional Practices in the Built Environment Conference, organized within the Value of Architects project, 27-28 April 2017, Reading, the UK.
- A discussion group of a network of managers of architectural firms, organized by the Royal Institute of Dutch Architects (BNA), 20 November 2016, Rotterdam, the Netherlands.
- A discussion group of the Policy Advisory Committee Entrepreneurship, organized by the BNA, 9 February 2017, Delft, the Netherlands.
- FuturA Living Lab #8, 22 September 2016, Amsterdam, the Netherlands.
- FuturA Living Lab #9, 25 April 2017, Utrecht, the Netherlands.
- The Delft University of Technology Research Exhibition, 6-8 June 2017, Delft, the Netherlands.
- FuturA Symposium 'Design your Business, Design your Future!', 29 March 2018, Delft, the Netherlands.

This chapter presents the design-oriented part of my research, introducing a toolkit that can be used for the capture of value in projects. Although the toolkit was specifically designed for architectural firms involved in construction projects, it can also be used by other organizations and in other project contexts.

The chapter is organized into four main sections. It begins by briefly setting out the relevance of the toolkit, with insights from the literature and the previous empirical chapters used to provide a background to explain why architectural firms may benefit from a value capture toolkit. It then presents the development process, describing the methodology used, the steps that were followed to arrive at the final design of the toolkit and the key resources that served as input. Following this, the different components of the toolkit are presented. These include four generic professional role identities taken on by architectural firms, a board game with cards for value capture, an overview of specific value capture challenges and recommendations in relation to each of the four role identities, as well as nine example projects. The chapter concludes with some notes on the toolkit's usage, including the proposed settings in which it may be useful and suggestions for successful application.

§ 6.1 Why architectural firms may benefit from a value capture toolkit

Architectural firms are driven by the pursuit of originality and novelty in the delivery of unique, customized services addressing the complex problems of clients (Jones et al., 2016). They collaborate with other actors in temporary, inter-organizational projects where different domains of expertise are integrated. Although the role of architectural firms in construction projects has historically been well defined (Burr and Jones, 2010), their role has recently become more diverse, blurred and contested (Duffy and Rabeneck, 2013). Contextual developments, such as the emergence of new building professions (Burr and Jones, 2010) and new technologies (Whyte, 2011), the increase in integrated project delivery (Lahdenperä, 2012), and the commodification and devaluation of architectural expertise (Ahuja et al., 2017), have altered the scope of work for which architectural firms are commissioned and also had an effect on their professional autonomy. The increasing diversity of tasks and the marginalization of the architect's position in projects is resulting in more heterogeneous and daunting processes of organizational value capture. New roles do not always fit the revenue models that firms employ in projects, or they prevent firms from performing the work that they consider crucial, resulting in unprofitable and/or professionally unsatisfactory projects.

Previous chapters have shown how architectural firms tend to use considerably risky value capture strategies in projects. Chapters 2 and 3 both illustrated that firms are vulnerable to escalating commitment: they tend to continue their activities in a project until they reach an optimal solution, regardless of the hours spent. Architects typically argued that if a project solution was not 'right', the effort and investment to make it right would eventually pay off in terms of a more comprehensive role, better conditions for value capture or the capture of values that contribute to the firm's professional goals. Firms also sometimes deliberately engage in unprofitable projects and take the risk of financial value slippage in projects for the sake of enhanced long-term benefits for the firm, as was illustrated in Chapter 4. While these risky value capture strategies suggest a certain courage and perseverance by architectural firms in managing their businesses, they also demonstrate that firms are particularly vulnerable to unforeseen changes.

This vulnerability became painfully clear during the aftermath of the financial crisis of 2008, when demand fell and huge numbers of even the most renowned architectural firms collapsed because they were not able to respond to changes in the business environment surrounding them. Although the firms still co-created value in projects, they were unable to retain sufficient monetary value from these projects to survive and/or had to engage in work that did not match their professional standards. Architectural firms must thus deal with the value capture challenges that they will encounter in projects on a more strategic level to enhance the sustainability of their businesses and the architectural profession at large.

Research in the field of management has shown that organizations benefit from the continuous management and innovation of their business strategies (Amit and Zott, 2012; Teece, 2010). Strategy tools, such as the 'Business Model Canvas' (Osterwalder and Pigneur, 2010), may be particularly helpful instruments in this regard as they help firms to address the fundamental strategic issues that they face in a simple and systematic way (Clark, 1997; Jarzabkowski and Kaplan, 2015).

Although the use of strategy tools has become embedded in the daily practice of a variety of organizations, such as consultancy and entrepreneurial firms, studies on the strategic management of architectural firms have highlighted that architectural firms primarily focus on the management of their projects and deal with their strategic management issues on a less frequent and more ad-hoc basis (Winch and Schneider, 1993). This is supported by the empirical data collected for this dissertation, which revealed that members of architectural firms often do not know or do not agree on the frequency with which they engage in strategy meetings.

The value capture toolkit that is presented in this chapter offers a way to engage more regularly in strategizing that moves beyond the content of a project. The practitioners who were involved in the research strongly agreed that such strategizing is crucial if firms wish to increase their own and the profession's competitive advantage, but also found that it may be challenging to implement. This chapter addresses both aspects by providing insights into how the toolkit addresses the value capture challenges that firms face in their projects, introducing the specific toolkit components that may facilitate dealing with these challenges (§ 6.3), and the considerations that should be kept in mind for successful application (§ 6.4).

§ 6.2 Development of the value capture toolkit

The process of development of the toolkit followed a design-thinking approach (Dorst, 2011) and consisted of five steps, which were repeatedly revisited along the way. We used literature from different disciplinary fields (e.g. strategic management, project management, construction management, professional service firms, marketing), the empirical data collected for the futurA project, and our meetings with practitioners as input for the steps and as a means to validate and further strengthen the outcomes of each step. Figure 6.1 provides a visual representation of the toolkit development process.

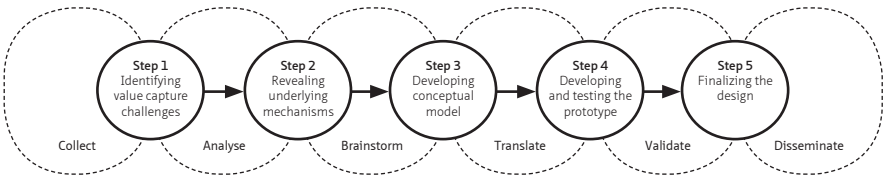


FIGURE 6.1 Toolkit development process

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§ 6.2.1 Step 1: Identifying value capture challenges

The first step was analytical and aimed to identify the most salient, generic value capture challenges that architectural firms encounter when working in project constellations. What is it that makes it so difficult to realize multiple strategic goals in the complex, dynamic project environments in which firms work? The step aimed to determine the purpose of the toolkit by identifying the main issues with which architectural firms might need and appreciate support.

To achieve this goal, all of the interview data that were gathered in the futurA project were thoroughly analysed, compared and discussed by the two PhD researchers. The process was repeated multiple times and over an extended period of time. Emerging themes were discussed with the wider research team on a monthly basis and every six months with the consortium partners. Eventually, this led to the shared consensus that architectural firms face two important value capture challenges in their project-based work: 1) they need to acquire and perform a role in a project that is in line with their professional identity, and 2) they need to develop strategies to capture both financial and professional value on the basis of that role.

We refer to the first challenge as the firm's 'role identity challenge'. A role identity provides a socially constructed definition of one's self-in-role and includes 'the goals, values, beliefs, norms, interaction styles and time horizons that are typically associated with a role' (Ashforth, 2000, p. 6). The construct of 'role identity' is commonly used to refer to the role-based identity that results from individuals enacting a certain role (Ashforth, 2000). We use 'role identity' to refer to the role-based identity that emerges from architectural firms performing a certain role within a project. The interview data showed how tensions between a firm's role in a project and the firm's professional identity complicate the co-creation and capture of value. We found examples of firms that provided services for free or spent too many hours on their work to be able to realize projects that they could justify professionally. The respondents considered these investments in a project necessary, as their often marginal role in the project did not provide the right conditions to capture professional value.

Regarding the second challenge, which we refer to as the 'value capture strategy challenge', firms have to determine how they can successfully capture value on the basis of the services and/or products that they propose and create with a certain role identity in mind. Our data revealed that different role identities require different value capture strategies by firms. Disregard for the specific challenges and opportunities associated with a certain role identity may frustrate firms' value capture in projects, because important relationships between strategic decisions or alternative strategies

may be easily overlooked. Examples include projects in which the financial value capture of firms became constrained because they used a traditional revenue model to deliver fewer or different kinds of services.

§ 6.2.2 Step 2: Revealing underlying mechanisms

The second step focused on revealing and detailing core aspects and mechanisms that underlie the two value capture challenges. We systematically looked for reasons that explained why value capture challenges arose in projects and how the strategies employed by firms were or were not successful in dealing with these challenges. We were particularly aware of the need to be thorough and to keep an open mind during the entire process, as aspects that might seem minor or peripheral can also provide valuable clues (Dorst, 2011).

With regard to the role identity challenge, the role negotiations of architectural firms in projects revealed that an architectural firm's professional role identity is strongly related to the *professional expertise* it has and wishes to offer in projects, and the project phases in which it considers this expertise necessary or valuable (see Chapter 2). Differences between the firm's and the client's view on the necessary expertise were found to lead to misalignment of firms' role identities within projects, thereby hindering the capture of financial and/or professional value. For example, firms were often not commissioned to deliver technical expertise during the project's engineering's stage, which prevented them from realizing the project quality that they wished to deliver from a professional viewpoint, or which required additional financial investment to achieve it.

With regard to the value capture strategy challenge, we found that the strategies that firms used to capture value in projects are particularly related to the *hierarchy in goal*s that firms wish to accomplish in these projects (see Chapter 3) and the *financial and professiona*l *risk*s that they are willing to take in pursuing these goals (see Chapter 4). For example, firms decided to postpone or compensate financial revenues in projects, or even rejected projects, to attain and safeguard their professional goals, which shows that they were willing to risk losing money in projects but did not want to risk their professional aims.

Further analysis and comparison of the specific situations in which certain role negotiation strategies or value capture strategies were chosen, revealed three mechanisms that influence firm role identity and value capture in projects. First, decisions regarding

activities and responsibilities in a project affect role-identity alignment and value capture. It was found that architectural firms often failed to capture professional value in projects or feared to do so when they could not enact the role they aspired. Activities also play a key role in the business model literature. In their review of the literature, Zott et al. (2011) identified firm activities as one of the core components underlying the many business model conceptualizations that have been proposed by scholars.

Second, decisions regarding the use of firm *resources and partners* determine the extent to which the professional identity of the firm and the actual role of the firm in the project are aligned, and whether the firm is able to capture value on the basis of that role. We found situations in which firms particularly depended on performing certain activities in-house to ensure that they could realize project quality that matched their professional standards; attain their reputational goal in their contribution to the project; or were able to capture sufficient monetary value. While traditional views on the business model depict resources as being owned by a firm or its direct co-creation partners, business model literature from an ecosystems perspective emphasizes that resources can be owned by any actor and integration of these resources needs to be facilitated by firms (Wieland et al., 2017).

Third, *collaboration agreements* and the *revenue model* played a key role in role-identity alignment and value capture. A lack of agreements with partners involved, or revenue models that did not match a firm's activities in a project, prevented firms from capturing value. Solid agreements regarding a firm's activities and responsibilities in a project, a strong basis of trust among collaborating actors and/or revenue models that were specifically designed to accommodate firm and project needs over the course of the project proved to strengthen a firm's ability to capture value in a project. While the revenue model represents a core mechanism in many business model studies adopting a focal firm perspective and focusing on profit generation (Amit and Zott, 2012; Zott et al., 2011), collaboration agreements are particularly relevant at the boundary of the firm and for the attainment of other goals.

§ 6.2.3 Step 3: Developing conceptual model

In step three, we aimed to arrive at a more holistic understanding of the value capture of architectural firms in projects. We translated the insights of the first two steps into a conceptual overview, in which we particularly focused on how the different value capture challenges and value capture mechanisms were related. This resulted in the conceptual model of Figure 6.2.

Figure 6.2 shows that the role of a firm in a project is always given in by both the project and the firm. The professional identity of the firm determines which goals it aims to achieve by means of the project, what expertise it considers important to employ in order to achieve these goals, and what risks the firm is willing to take to ensure this. In other words, the professional identity that is expressed in goals, expertise and risks determines the role that the firm would ideally perform in the project (see Figure 6.2a). The goals of the client and other stakeholders in the project, the expertise that is requested or already available to attain these goals and the risks that project actors are willing to take, or wish to avoid, in order to realize a successful project, determine the role the firm can actually play in the project (see Figure6.2b).

As our data show, the desired and actual roles of a firm in a project are often not aligned, leading to tensions in the firm's role identity. Firms may either desire a greater role than they are actually able to perform in the project, or claim a greater role in the project than necessary (see Figure 6.2c).

Carefully thinking through decisions regarding the firm's activities and responsibilities in the project, its deployment of resources and partners, and its collaboration agreements and revenue model, contribute to the firm's ability to capture value when performing a certain role in a project (see Figure 6.2d). This helps firms to specify and justify the role they can perform in a project, which not only makes it easier to decide within the firm what to pursue in a project and what not, but also provides opportunities to narrow the gap between the firm's desired role and its actual role through negotiation with other project actors.

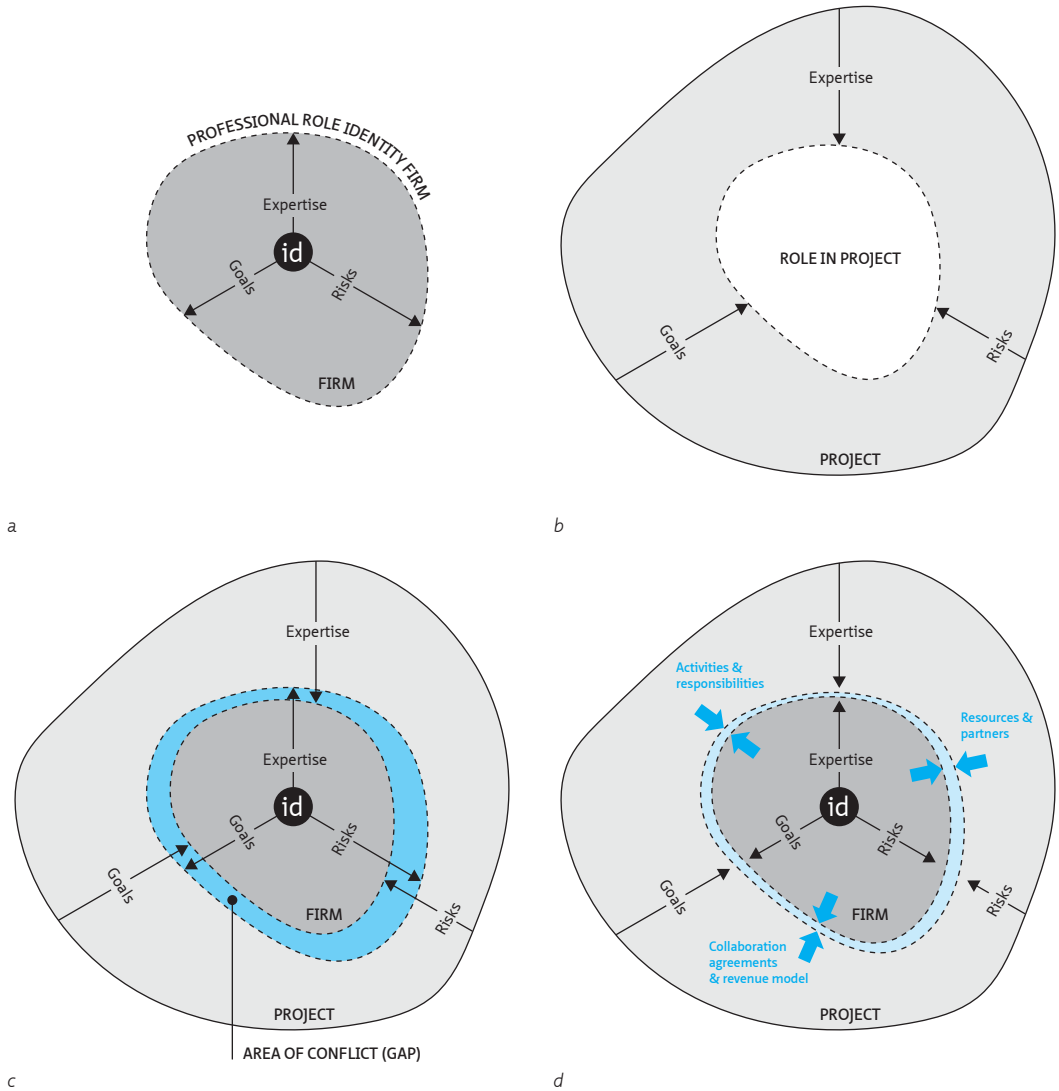


FIGURE 6.2 Conceptual overview of value capture in projects

§ 6.2.4 Step 4: Developing and testing the prototype

The fourth step aimed at translating the conceptual model into a toolkit that would be able to support architectural firms in developing their value capture strategies. Inspired by Osterwalder and Pigneur's Business Model Canvas (2010), we developed a framework for value capture in projects based on the key aspects and their relationships, which were discussed in Step 3 (§6.2.3).

Prototype 1

A first prototype of the framework (see Figure 6.3) consisted of three steps that guided users from their value proposition and intended value capture in a project (Step 1) to an alignment between the two by means of a further specification of the activities and risks involved (Step 2), and the resources, partners, agreements, costs, revenues and governance necessary to facilitate this (Step 3). The framework was accompanied by a list of answer options for the topic-related questions that users were asked. This was jointly developed on the basis of our review of the business model and project governance literature and the analyses of the empirical data collected in our own research.

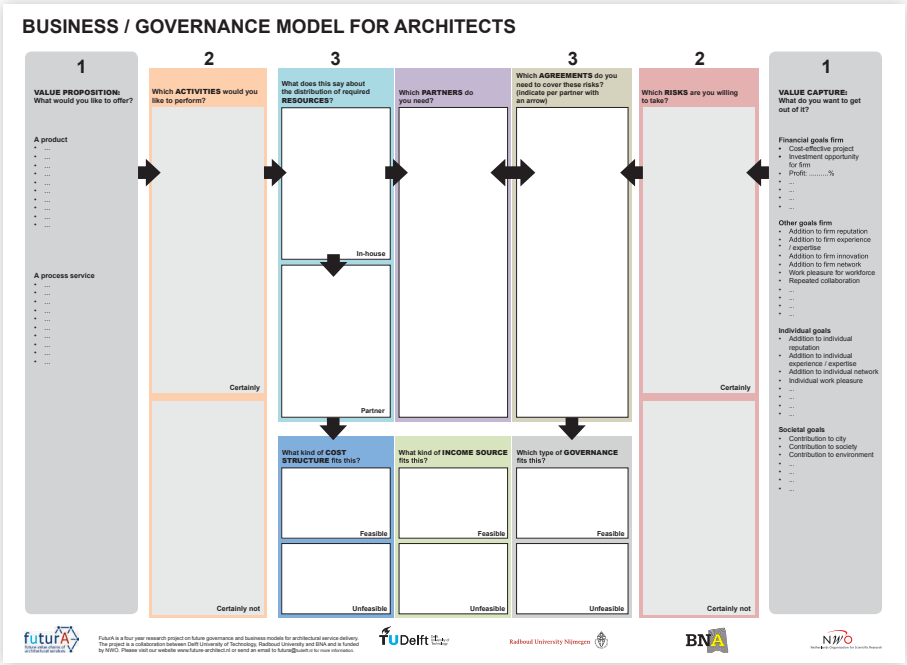


FIGURE 6.3 Prototype 1

Prototype 1 was tested by several members of the research team and then on an individual basis by six consortium members during Living Lab meeting #8 (see Figure 6.4). The participants were first instructed how to use the framework and then all given a description of a hypothetical project for which they were asked to fill in the framework. The participants received stickers with pre-printed answers with which to fill in the boxes of the framework, and they were also given blank stickers to make their own additions. To test the functionality of the framework, the individual sessions each had the same structure and content. All participants were given the same project description, the same stickers and guided through the framework in exactly the same order by one of the futurA researchers. The researcher who guided the process asked the individual participant questions to gain a better understanding of the rationale behind the decisions and in which way the framework was helpful or not in arriving at these decisions. The researcher also observed and audio-recorded the entire process.

The outcomes of the six processes were discussed in a plenary session (see Figure 6.5) to identify important commonalities and differences and to evaluate the design and use of the framework. An important conclusion of this discussion was that the framework revolved around recognizable challenges in the everyday practice of architectural firms and allowed participants to consider these challenges more

thoroughly by making their decisions in a wider context. The interaction between different questions was considered important, as it helped participants to recognize important relationships between their decisions and reconsider these over the course of the process. Participants also mentioned that it was particularly valuable to have someone guiding the process, as this encouraged them to engage in the process with a more critical and reflective attitude. They envisioned that further benefits could be gained from filling in the framework with a larger group of people, and therefore encouraged us to test the framework in a group setting.

FIGURE 6.4 Individual session

FIGURE 6.5 Plenary discussion

In addition to the Living Lab meeting, Prototype 1 was discussed in four meetings with members of the BNA. The responses of the architects and partners of architectural firms who attended these meetings were particularly helpful as they were not biased by involvement in our research. The feedback that was given further strengthened the main conclusions of the Living Lab meeting, but also highlighted the importance of using vocabulary from practice and attractive visualization to encourage architects to use the toolkit.

Prototype 2

Prototype 2 (see Figure 6.6) basically covered the same steps and topics as Prototype 1, but had a different design and used different terms to refer to the framework's topics. For example, the term 'value proposition' was replaced by the term 'offer', the term 'value capture' by 'goals' and the term 'resources' by the Dutch equivalent 'middelen'. The pre-printed stickers were discarded and the different boxes of the framework were left completely blank to encourage users to phrase and thereby think about their own answers. Similar to Prototype 1, the boxes included one or two key questions that were directed at the users to help them to come up with the right kind of answers for each

topic. The size of the boxes was adjusted to the size of post-its, so that users could write their answers on post-its, stick them into boxes in the framework and remove or reposition them later if necessary.

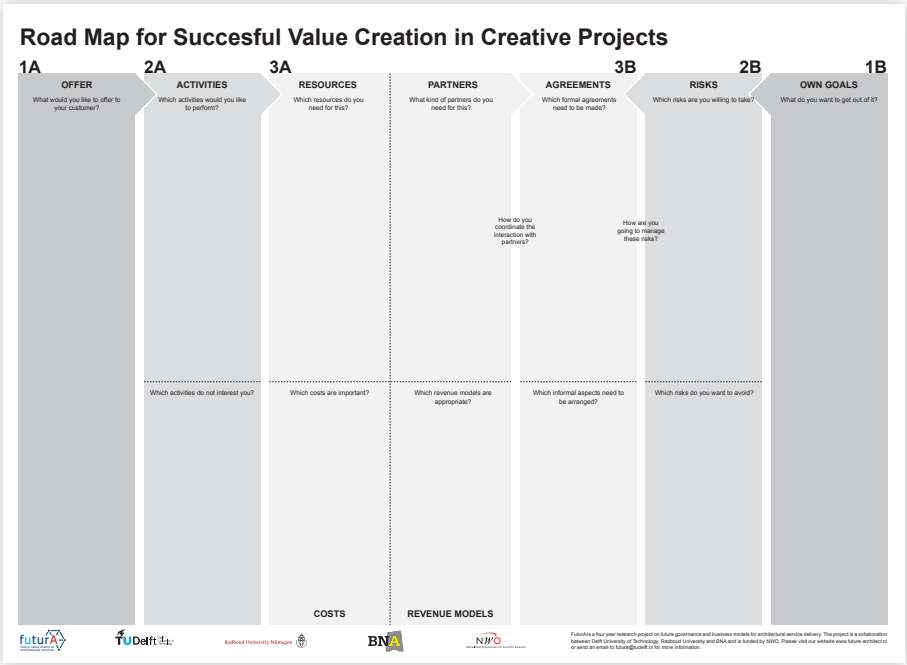


FIGURE 6.6 Prototype 2

Prototype 2 was tested in a group setting in 17 diverse architectural firms (see Figure 6.7 and Figure 6.8) to gather insights into the utility and design of the framework from various, possibly opposing, perspectives. The firms selected were active in different sub-sectors of the field (e.g. housing, health care, cultural, utility buildings, etc.), were founded between 1914 and 2015, ranged in size between 2 and 165 people, and were owned by between 1 to 10 people.

Over a period of two months, we organized a strategy meeting in each of the firms. The meetings involved multiple participants, who were selected by the managers of the firms with the aim of creating a setting that was similar to the firm's regular strategy meetings. To ensure that the content of the meeting would be representative of a firm's regular strategizing activities, we asked the participants to fill in the framework for a project that was recently acquired or was in the process of being acquired and thus still

required strategizing. The project was chosen prior to the meeting or at the beginning of the meeting.

The meetings lasted approximately three hours and were all conducted by the same two researchers to ensure robustness and comparability. My fellow researcher played the role of moderator and guided the group through the framework while asking questions about their decisions and thoughts. I took a participatory observant role, introducing the framework at the beginning of the meeting and instructing the group in how to use it. During the meeting, I kept track of the discussion with an event log, as well as video-recording and taking photographs, and asking questions for clarification purposes. At the end of the meeting, I asked the participants to evaluate the design and use of the framework. The comments were all recorded in writing and compared to develop a coherent understanding of the tool's strengths and weaknesses, as well as its potential for implementation in practice.

FIGURE 6.7 Group discussion

FIGURE 6.8 Filling in the framework

A detailed comparison of the feedback that was provided during the sessions revealed that, in general, participants valued the structured way of working towards strategic decisions. Some participants mentioned how the framework had triggered them to think about aspects that they typically would not consider in-depth, or had revealed important opportunities or risks by considering different topics in relation to each other. Other participants said that although they had already considered the topics and relationships concerned in their projects, the framework helped them to make their strategies more explicit and manageable. The participants also appreciated the guidance of the independent facilitator, as he had continuously triggered them to substantiate their choices and think beyond common strategic decisions.

For two firms, the framework was unnecessary, as they already used their own project-specific strategy tool, or the participants did not see a match between the creative

direction given by the firm's owners and the structured, time-consuming process of filling in the framework. In another meeting, the owner of the firm mentioned that he did not need a framework to make good strategic choices in projects. However, when an employee who had participated in the session said that the framework had given him greater insight into why they were doing things the way they did in the project, the owner changed his mind. He said that although the framework might be redundant in his firm in relation to developing project strategy, it might represent a valuable communication tool.

Recommendations for improvement

The feedback that was provided at the end of the sessions resulted in two important recommendations for further development:

1. To make the framework more specific for different kinds of projects, firms or scenarios of use to increase its applicability.
2. To distinguish more clearly between answers that are oriented towards the project – aimed at providing solutions that fit the request of the client (i.e. the actual role of the firm in the project) – and answers that are oriented towards the firm – aimed at providing solutions that are in line with the firm's strategic goals (i.e. the desired role of the firm in the project), as these two may be very different and may involve tensions.

Purposes of usage

Participant discussions also led to the emergence of five potential purposes for which the framework could be used: A) for the development of firm strategy, B) for the development of project strategy, C) for the development and management of the project portfolio, D) for interaction in the project constellation, and E) for educational purposes. The five potential purposes of usage were discussed in more detail in Living Lab meeting #9, to which we invited a larger group of practitioners. Participants included architects (mainly owners), clients, architecture professors and representatives of the BNA, including the person in charge of the BNA professional training programme.

Following an introduction to the framework and inspirational presentations of two example projects (see Figure 6.9), five groups of 4-6 participants, moderated by a futurA researcher, developed a 'programme of requirements' for each of the five purposes of usage (see Figure 6.10). The programmes were evaluated by one of the other groups, which resulted in an extensive overview of recommendations

and guidelines for further development of the toolkit for each of the use scenarios involved. The results led us to focus the final design of the framework on its use for the development of project strategy by either an architectural firm or the wider project constellation, and on its use for education. The development of firm strategy by means of the framework was dismissed, as this was facilitated by already existing tools, such as the Business Model Canvas (Osterwalder and Pigneur, 2010). Use of the framework for the management of firms' project portfolios was considered less relevant by the participants involved and therefore also dismissed.

FIGURE 6.9 Presentation of example project

FIGURE 6.10 Discussing 'programme of requirements'

§ 6.2.5 Step 5: Finalizing the design

The fifth and final step aimed to further develop the prototype to produce a final design. The recommendations for improvement derived from Step 4 (§ 6.2.4) were all integrated into the final design of the framework. To customize the framework to multiple specific situations, we decided to add specific questions to the general questions to facilitate firms in addressing the main value capture challenges and opportunities for four generic professional role identities that we discovered in our empirical data. We refer to these professional role identities as the 'initiator', 'specialist', 'product developer' and 'integrator'. In § 6.3.1, the professional role identities and accompanying challenges and opportunities are presented in detail.

A graphic designer was hired to adjust the design of the framework to the intended users. In this step, the framework was adjusted to function more as a board game and centred around a core (see Figure 6.11 and Figure 6.12), which allowed users to play the 'game' from all positions around a table. The questions were printed on re-writable

cards that could be positioned on the board, triggering users to communicate about their choices. Five sets of cards were included: a set of generic questions about the topics of the framework and four sets of specific questions for the initiator, specialist, product developer and integrator role identities. The users of the framework are able to decide which cards to use for each individual project. Different firms may decide to use different cards, as they may have different professional role identities in projects, or different experiences in dealing with certain topics. The recommendation to differentiate between project-oriented and firm-oriented decisions was addressed by dividing the framework into two rings centred around one replaceable piece, which represents the specific case for which the framework is being filled in. The inner ring is oriented towards the project; the outer ring towards the firm. The final design of the framework is presented in §6.3.2.

To inspire and help users to address the challenges of a certain role identity in a project, we added example projects for each of the four role identities. Based on the insights from our interviews, we selected nine examples, including projects undertaken by our consortium partners. For each of these projects, the firm's strategy was filled in for the different topics of the framework by means of a short interview with the project architect, conducted by a futurA team member. The example projects were all visualized in the layout of the framework to increase their explanatory power. Section 6.3.3 includes the different example projects.

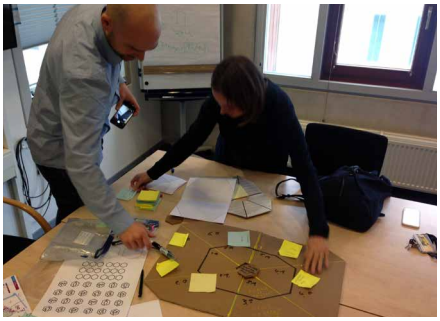


FIGURE 6.11 Session with graphic designer

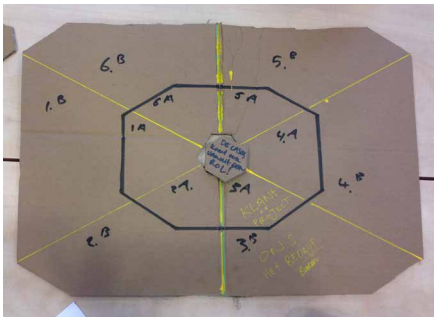


FIGURE 6.12 Prototype board game

§ 6.3 The value capture toolkit

The value capture toolkit consists of four main components, which are introduced in the following sections. Section 6.3.1 presents an overview of four generic professional role identities of architectural firms to specify the project and professional context in which one is involved. Section 6.3.2 includes the board game with cards to develop comprehensive and balanced value capture strategies for projects. Section 6.3.3 then provides an overview of role identity-specific value capture challenges and recommendations to identify common pitfalls and opportunities for the type of role identity one has in a project. Finally, section 6.3.4 presents the example projects for each of the four generic role identities to inspire practitioners and support the generation of well thought through strategies.

§ 6.3.1 Professional role identities of architectural firms

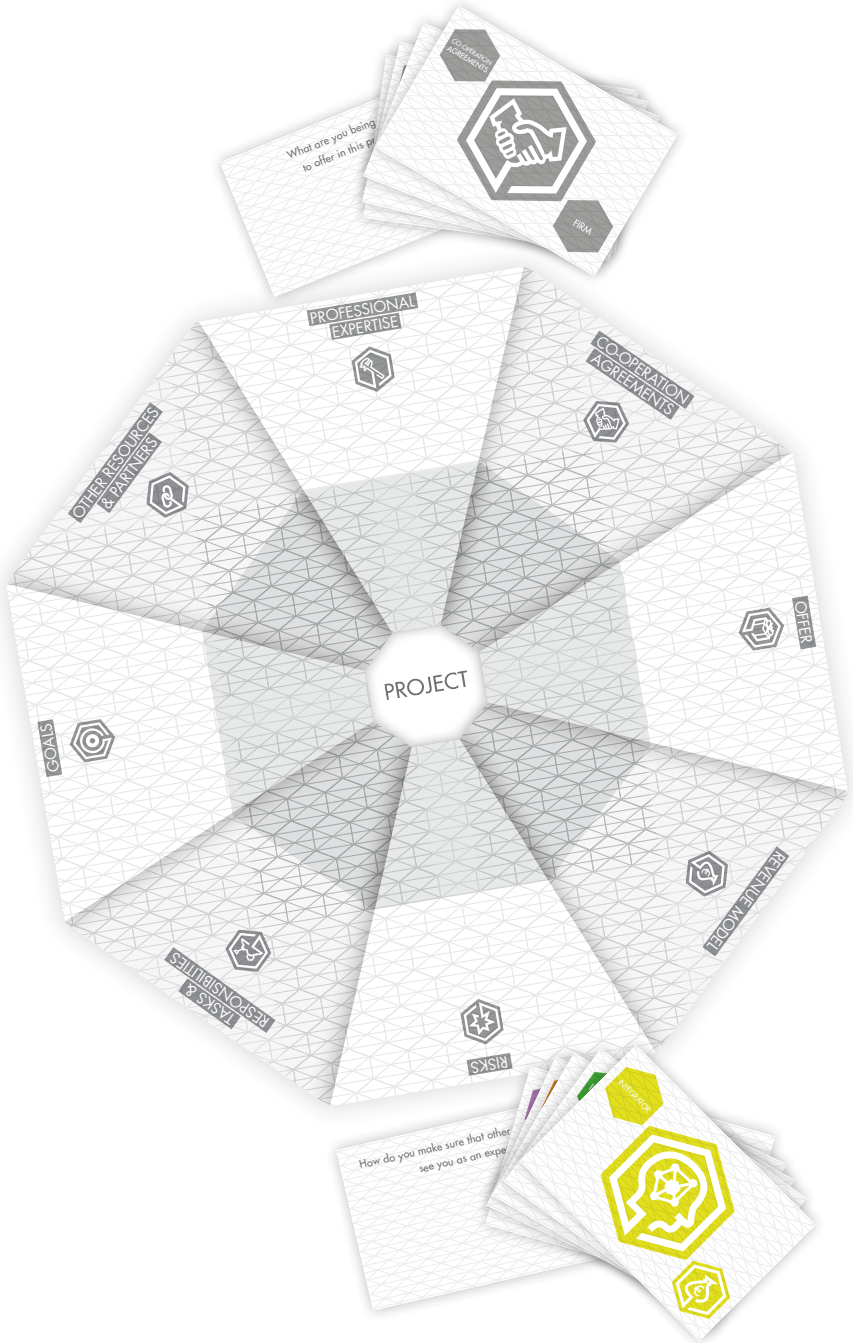
Architectural firms have a strong sense of professional identity, which they derive from well-developed institutions of professionalism (Abbott, 1988). This professional identity provides an ethically based framework that guides their actions and decisions (Empson et al., 2015; Muzio & Kirkpatrick, 2011). It is formed in relation to institutionalized ideas of the role of the professional (Chreim et al., 2007) and can be defined as 'the relative stable and enduring constellation of attributes, beliefs, values, motives, and experiences in terms of which people define themselves in a professional role' (Schein, 1978 in: Ibarra, 1999, p. 764). Historically, architectural firms performed one clearly defined role in a constellation with other actors (Burr and Jones, 2010). As this role has become increasingly diversified, the professional role identities that firms take on in projects have also started to differ across and within firms. We differentiated between the 'initiator', 'specialist', 'product developer' and 'integrator' role identities, which we describe in more detail in Table 6.1 The four generic role identities are not meant to be exhaustive and can break down into various sub-forms; however, they cover a wide spectrum of contemporary project-based work that architectural firms engage in or see themselves performing in the near future.

	INITIATOR	SPECIALIST	PRODUCT DEVELOPER	INTEGRATOR
Example descriptions	Creator or inventor of a project	Consultant, idea factory, BIM specialist, housing advisor	Maker, advice provider	Spider in the web, guardian of quality
Characteristics				
Key activities	Identify, seize and sell a project opportunity	Deliver and master a fixed set of activities	Develop and execute a business case and design for a product	Bring together and coordinate different disciplines
Key responsibilities	Create support among stakeholders	Become and remain frontrunner in a certain domain of expertise	Compose an effective co-creation team	Create common understanding and shared goals
Key professional values	Feels responsible for addressing societal problems	Feels responsible for advancing project, client and/or field on the basis of expertise	Feels responsible for providing a solution to customer needs	Feels responsible for safeguarding product and process quality

TABLE 6.1 Professional role identities of architectural firms

§ 6.3.2 Board game for value capture in projects

The board game for value capture in projects (see Figure 6.13) is intended to support architectural firms in identifying and managing the key value capture challenges of a project. It is accompanied by a set of re-writable cards that ask the users questions regarding the firm's offer, its expertise, the goals and risks of a project and how these are supported by the firm's activities, responsibilities, resources, partners, collaboration agreements and revenue model for the project. Although the framework was specifically designed for architectural firms involved in construction projects, it may be helpful for any actor involved in a complex, unique project, as it increases the ability to gain an overview and respond to the challenges of the project.



Graphic design: STUDIO DE WAAL
FIGURE 6.13 Board game for value capture in projects

§ 6.3.3 Role identity-specific value capture challenges

The role identities that architectural firms take on in projects all have unique value capture challenges. Table 6.2 provides an overview of the most salient challenges that firms may encounter when adopting a certain role identity in a project.

	INITIATOR	SPECIALIST	PRODUCT DEVELOPER	INTEGRATOR
Value capture challenges:				
Goals & risks	**Financial value** Stakeholders become engaged and may take over the capture of financial value Investment required to perform key activities **Professional value** Stakeholders may have different goals and complicate the process of reaching professional goals	**Financial value** Traditional revenue models may not match the type of work; thus, may not generate sufficient revenues Other actors need to be persuaded to agree with new revenue models **Professional** Peripheral activities that may also generate work pleasure need to be outsourced Activities need branding that may diverge from the label 'architect'	**Financial value** Tensions between repetition and customization: repetition increases earning power, while customization increases desirability **Professional value** The co-creation effort for a product may not visibly contribute to firm reputation	**Financial value** Not always commissioned and/ or paid for all necessary activities **Professional value** Professional goals may have to give way to project goals

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	INITIATOR	SPECIALIST	PRODUCT DEVELOPER	INTEGRATOR
Value capture recommendations:				
Resources & partners	Create a financial buffer to invest Find like-minded partners with financial resources Look for suitable partners with financial resources in an early stage, good experiences in earlier collaboration may be particularly beneficial	Only perform work around the core of your expertise to continue having unique expertise, and outsource everything else	Try to develop sustainable relationships with co-creation partners to increase efficiency in and the results of collaboration	Develop strategic partnerships with various experts or include different types of expertise in-house to optimize your ability to manage and control the process
Collaboration agreements	Communicate goals and agree on your share of the pie in advance	Make sure that you and your partners share goals Show partners the need for and benefits of a different revenue structure	Make sure that you and your partners share goals Develop one revenue model for the product with your partners that includes the revenues for all parties involved	Make sure that different experts in-house and partners know and respects each other's goals and activities Co-develop and discuss clearly demarcated sets of activities and responsibilities among types of expertise/partners
Revenue model	Develop innovative revenue models that do not directly depend on a paying customer, but may become profitable over the lifecycle of the project or end result (e.g. commission model, rental or leasing model)	Ask higher hourly rates in a fee-for-service model or develop new revenue model connected to the package of expertise that you deliver (e.g. licensing model)	Develop a revenue model with your partners that is connected to the sale, lease, maintenance, operation or customer benefits of your product (e.g. subscription model, rental or leasing model, freemium + premium model)	Look for opportunities to earn money for your coordination work

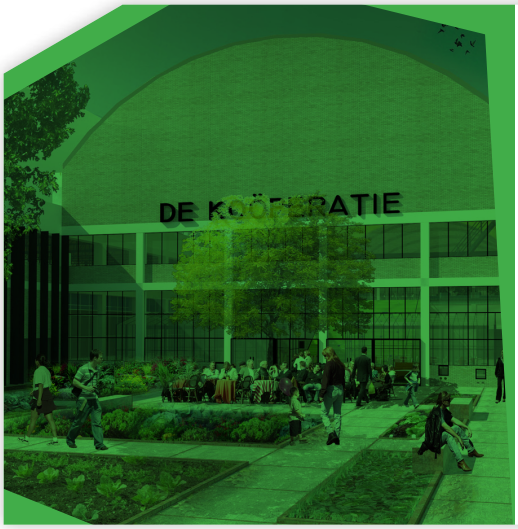
TABLE 6.2 Role identity-specific value capture challenges

§ 6.3.4 Example projects

Example projects (see Figures 6.14-6.22) are provided for each of the four generic professional role identities that architectural firms take on in projects. They show, in detail, how the framework can be filled in, provide inspirational material for enacting a certain role identity and highlight some of the challenges and opportunities that firms may encounter when adopting a certain role identity in a project.

Image: Thijs Asselbergs architectuurcentrale & AnnA | Annebregje Snijders architect, Graphic design: STUDIO DE WAAL

FIGURE 6.14 Example project 1: Koepel complex, Haarlem by Thijs Asselbergs architectuurcentrale



INITIATOR

IAA Architecten

THE MILK HALL

IAA Architects itself took the initiative to save the historic industrial complex of the former Lonneker Co-operative Dairy (Lonneker Coöperatieve Melkinrichting) in Enschede from demolition. Together with developer Vincent Spikker and a group of enthusiastic entrepreneurs, a plan was formed to regenerate the buildings and their grounds. In a reinterpretation of the co-operative concept behind the original dairy, a number of user alliances have been formed, with a focus upon energy, facilities and healthy eating respectively. In the project's early stages, the enormous "milk hall" at the heart of the complex has become a central meeting place for all the new users. New housing is also being constructed on part of the site, and together with the heritage buildings, this will form the hitherto missing link between the town centre and another new residential district, De Boddenkamp. What was once a closed industrial site is thus being transformed into a very varied public space.

Image: IAA Architecten, Graphic design: STUDIO DE WAAL

FIGURE 6.15 Example project 2: The Milk Hall, Enschede by IAA Architecten

SPECIALIST **JHK**

HU UNIVERSITY OF APPLIED SCIENCES UTRECHT

After winning an open selection competition, JHK Architecten is now working closely with the client and a team of advisers on virtually every aspect of the relocation of HU University of Applied Sciences Utrecht to a single campus. From strategic advice to the elaboration and review of various renovation and construction projects, plus the compilation of performance requirements for a number of design-and-build commissions. To ensure that this ambitious operation runs as smoothly as possible, a strategic advisory report has recommended linking the hardware (existing buildings and infrastructure) and software (project plans and objectives) aspects so that the right choices are made during the process. As part of this, the university's property portfolio is being cut back from about 180,000 m2 (gross floor area) to about 120,000 m2. From the design-and-build phase all the way to completion, JHK Architecten is heavily involved in ensuring that everything meets the exacting standards set.

Photography: JHK Architecten, Graphic design: STUDIO DE WAAL

FIGURE 6.16 Example project 3: HU University, Utrecht by JHK Architecten

SPECIALIST EGM architecten

POWERED BY EGM

Powered by EGM is one of the business units at EGM architects, dedicated to a constant quest to optimise working processes and make maximum use of the opportunities offered by building information modelling (BIM). The unit draws upon its BIM know-how to promote innovation, development and knowledge sharing. Clients are supported in all phases and layers of the building column, be they architects, builders, developers, housing corporations or property managers.

Photography: EGM, Graphic design: STUDIO DE WAAL

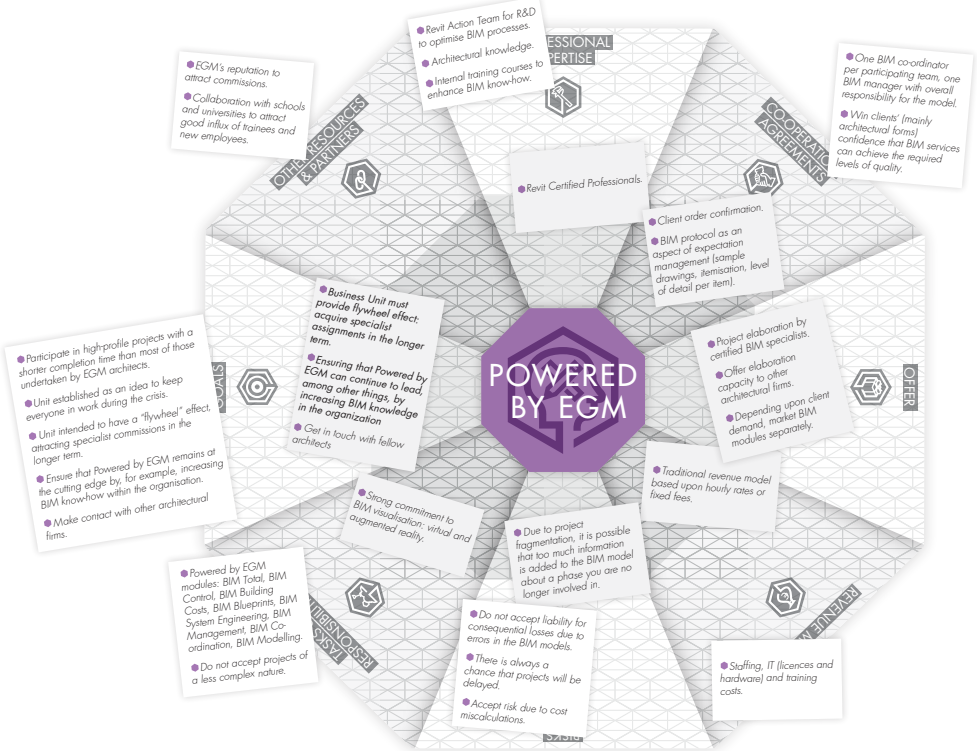


FIGURE 6.17 Example project 4: Powered by EGM

PRODUCT DEVELOPER

BETS EN OUDENDORP
Architecten

NOVA ZEMBLA LOFTS

The Nova Zembla Lofts project in Buiksloterham, Amsterdam, was developed on a collective private commissioning basis. Twenty combined residential and home-business lofts and two commercial units were delivered in shell form for completion as self-builds. Their differing sizes, high ceilings (340 cm) and flexibility of layout left plenty of scope for the final owners to finish the builds as they saw fit. Bets en Oudendorp Architecten acquired the site, began development of the complex and established a buyers' collective. As the project client, the collective then assumed full control over the appearance and layout of the complex. Having initiated the project, the architects went on to advise the collective and oversee the construction process from beginning to end.

Photography: Mark Seelen Fotografie, Graphic design: STUDIO DE WAAL

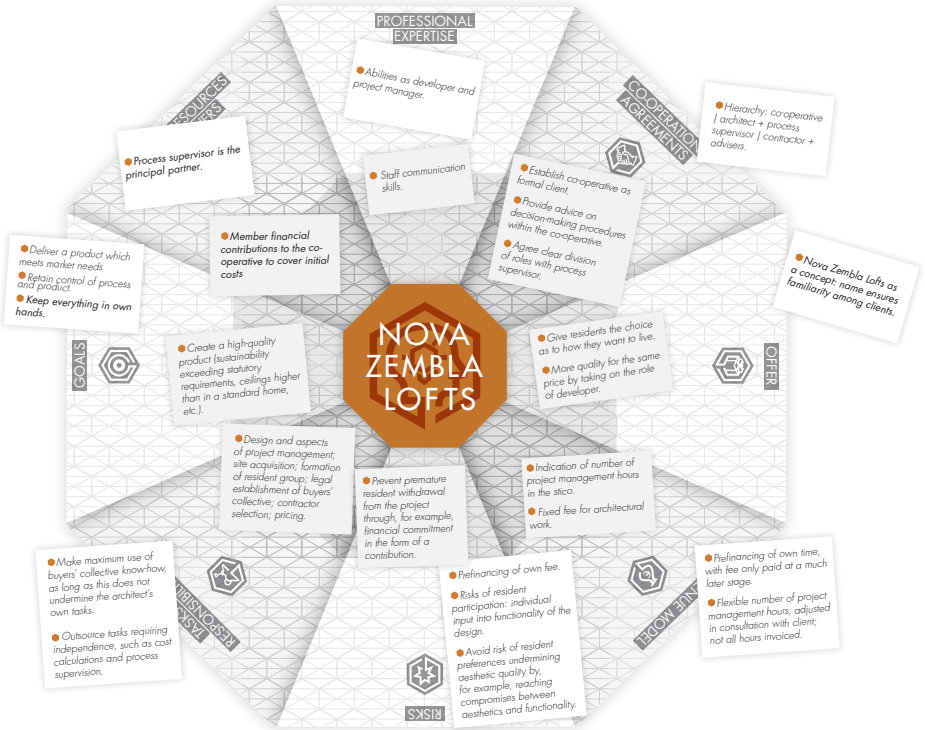


FIGURE 6.18 Example project 5: Nova Zembla Lofts, Amsterdam by Bets en Oudendorp Architecten

TOC

Photography: Ronald Tilleman, Graphic design: STUDIO DE WAAL

FIGURE 6.19 Example project 6: The Hub by Kraaijvanger Architects

Photography: De Zwarte Hond, Graphic design: STUDIO DE WAAL

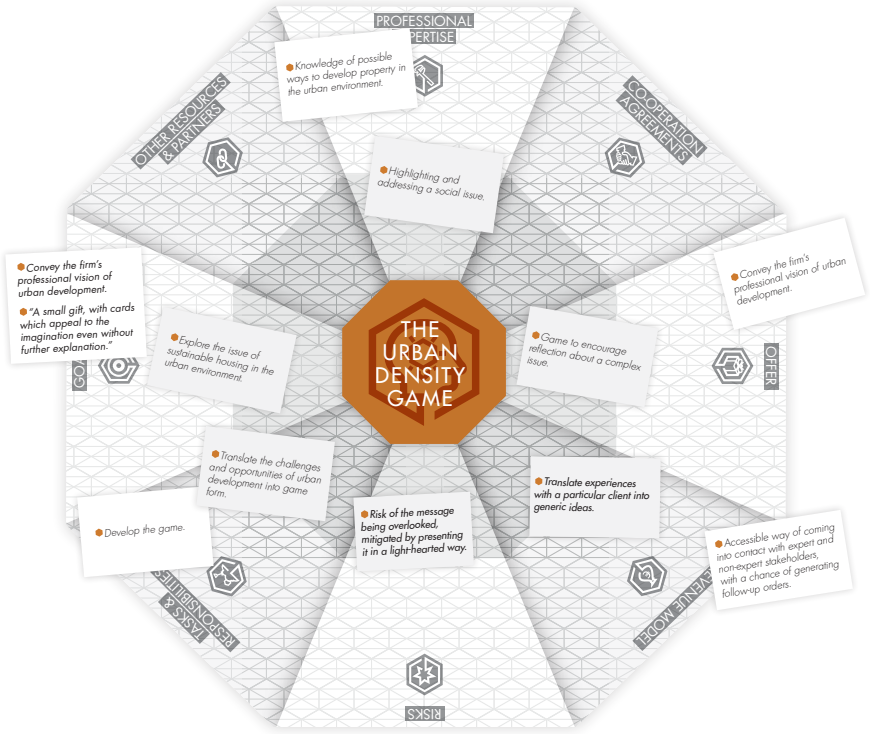


FIGURE 6.20 Example project 7: The Urban Density Game by De Zwarte Hond

TOC

INTEGRATOR

MVSA Architects

DUTCH MINISTRY OF FINANCE

As a partner in the Safire consortium, Meyer en Van Schooten Architecten was commissioned to produce a design for the renovation of the Ministry of Finance in The Hague. This was one of the first DBFMO projects conducted on behalf of the Dutch Real Estate Agency (Rijksvastgoedbedrijf). While it was important to maintain the building's brutalist style, Jeroen van Schooten's design completely overhauled its fabric to anchor the structure in the urban tissue of The Hague. For Meyer en Van Schooten Architecten, this participation in a DBFMO consortium was a test project to determine whether such an integrated approach represents a good alternative to traditional forms of collaboration.

Photography: Jeroen Musch, Graphic design: STUDIO DE WAAL

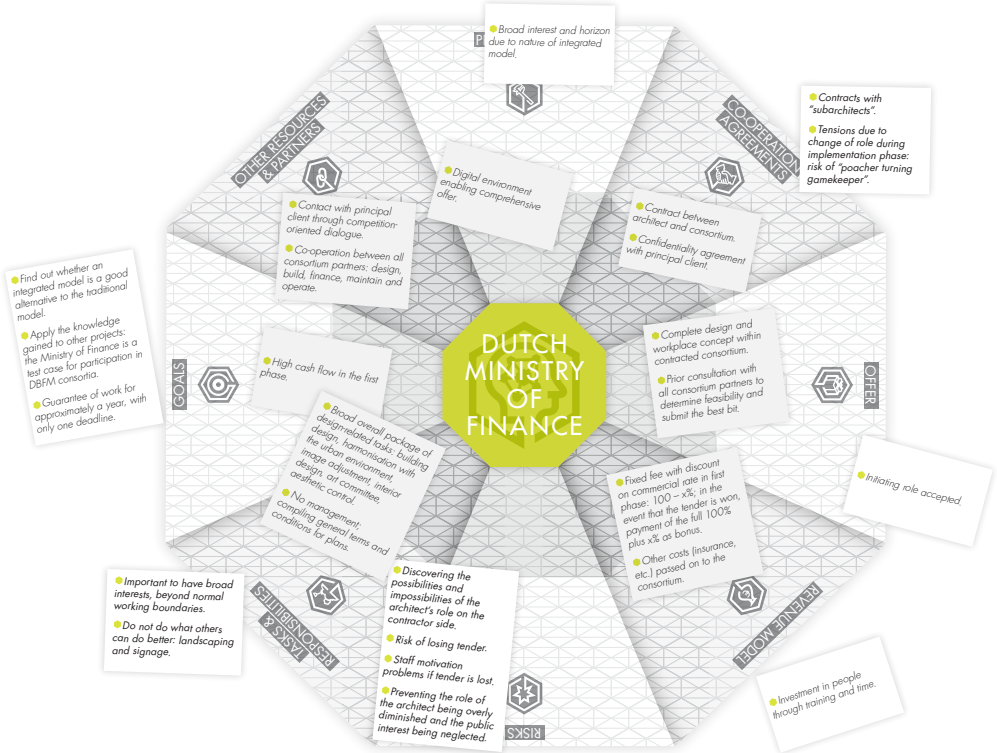


FIGURE 6.21 Example project 8: Dutch Ministry of Finance, The Hague by MVSA Architects

Photography: Rothuizen, Graphic design: STUDIO DE WAAL

FIGURE 6.22 Example project 9: BouwMeesterPro (Wiekendael, Roosendaal) by Rothuizen

§ 6.4 Notes on using the value capture toolkit

§ 6.4.1 When to use the value capture toolkit

The value capture toolkit can be used for multiple purposes, both within the architectural firm, in collaboration with other actors and in education. In this section, I discuss four potential ways of using the toolkit.

First, the toolkit can be used by architectural firms to develop strategy for a project. It supports firms in generating a comprehensive and detailed understanding of their business approach to a project through a more careful consideration of potential role identities and the associated restrictions and opportunities. This enhances a firm's ability to optimize its value capture strategy at the start of a project and monitor and improve this over the course of the project. Use of the toolkit encourages discussion between partners and/or employees. This discussion is crucial to arrive at better informed decisions on whether or not to engage in a certain project and how to approach the project.

Second, the toolkit may be helpful in the negotiation with clients and/or other project actors. It can contribute to making the intangible value that is co-created in a project more tangible by detailing the activities, resources and risks that the creation of certain project values require. This may facilitate architectural firms in being more explicit about what they do and what this entails, and may increase the understanding of other actors concerning what the architectural firm's role in the project is worth in monetary terms.

Third, the toolkit can be used to strengthen collaboration between project partners. It helps actors to align their desired roles in a project, based on a more thorough evaluation of the implications of a certain role identity. The toolkit helps to create a better balance between the inputs and outputs of both project and firm. In this way, it helps to generate an overview of the needs of all actors involved and identify any misalignments or areas of potential conflict, thereby contributing to the creation and management of shared goals and a better understanding of each other's motivations and constraints in the project.

Fourth, the toolkit can be used as an instrument to educate architecture students and practitioners. Since it includes different 'chunks' of information that can be explained

in-depth, shown as specific illustrations of what business considerations architects are confronted with in daily practice, and used in various exercises, the toolkit supports different didactic approaches and can be used for educating different types of student groups.

§ 6.4.2 How to make the most of using the toolkit

Based on participant feedback in the trial sessions and validation workshops, we have a few recommendations that may contribute to the usefulness of the toolkit.

Discuss and think aloud

Conscious engagement in project-specific value capture is stimulated and improved by discussing with each other and thinking aloud. Different perspectives on the topic help to strengthen a critical and reflective attitude, which is crucial to developing strategies that have the potential for success. We highly recommend a group setting for engaging in value capture-related strategizing. This not only leads to more substantiated strategies, it also helps to create a shared understanding of the reasons for choosing a certain strategy.

Involve an external moderator

Working on strategies for value capture under the guidance of an external moderator is highly productive. A person who is not part of the project or the organization may probe deeper into aspects that seem obvious to the firm. In this way, users are triggered to think outside the box and/or to substantiate why they prefer to do something in a particular way. A fellow architect, client or other building professional might be considered as an interesting option to act as an external moderator in the session.

Dare to choose and dare to be different

With many possible roles in projects and a plethora of opportunities to engage in these roles, firms may be easily seduced into holding on to the possibility of playing different roles in different projects and attempt to develop coherent value capture strategies for each of these projects. However, focusing on a certain role identity

and/or part of the value capture framework may also represent an easy opportunity for firms to strengthen their organizational identity, further develop their unique competitive advantage, make this more explicit and thereby reveal their worth to other project actors.

7 Discussion

This research aimed to investigate how architectural firms capture value in the projects in which they are involved, and how architectural firms might be supported in developing strategies for value capture. Section 7.1 provides a summary of the key findings of the research, first with respect to the understanding of architectural firms' project-based value capture developed in the dissertation (§7.1.1) and second in relation to the toolkit for facilitating the development of project-specific value capture strategies (§7.1.2). Section 7.2 discusses the significance of the findings for research on organizational value capture, the management of architectural firms and business model design processes, before presenting suggestions on directions for future research. Then, Section 7.3 presents the practical implications of the research for collaborative work in creative projects, and for architectural firms and other firms that are involved in these projects. In Section 7.4, the implications for education are discussed. Finally, I will reflect on the research approach and the relevance of the results in Section 7.5.

§ 7.1 Summary of key findings

§ 7.1.1 Project-based value capture

This research enhances the understanding of value capture by architectural firms that operate in project contexts and pursue the capture of multiple dimensions of value from these projects. It addressed the research question: *How do architectural firms capture value in construction projects?* The research investigated the strategies that architectural firms employ to negotiate role boundaries in a project setting (Chapter 2); value capture strategies used in the project-based interaction with a client (Chapter 3); and strategies used to attain firm goals in a project (Chapter 4); as well as ways in which firms deal with identity-strategy tensions to arrive at project-specific value capture strategies (Chapter 5).

The investigation of case-based interviews with architects and clients from 24 construction projects, showed that architectural firms use different strategies to negotiate the boundaries of their roles in inter-organizational projects, based on different perceptions of what their professional expertise means in the context of collaboration with other project actors. Firms that perceived their professional expertise as not being valued, attempted to reinstate their role boundaries and to return to the established situation. Firms that believed that their expertise was constantly changing, bent their role boundaries to take on activities and responsibilities which were tailored to project demands. Finally, firms pioneered new role boundaries and pursued an active break with the established situation if they considered their expertise was more broadly applicable. Different roles in projects therefore seem to generate different opportunities and constraints for firms to capture value. Roles that match a firm's professional and commercial ambitions, whether small or comprehensive, traditional or novel, enable the capture of financial and professional value by firms. Roles that diverge from a firm's ambitions require additional efforts to ensure that organizational goals are attained. This complicates the capture of value from the projects, as firms have to navigate between the different commercial and professional goals that they pursue.

By delving into how architectural firms attempted to capture value for organizational purposes in project-based interactions with their clients, it was found that hierarchy in the different value capture goals of architectural firms played a crucial role in the value capture strategies of firms. It also provided evidence of how firms, in their interaction with a client, continuously reconstructed their value capture strategies around the possibilities and constraints for the appropriation of professional value capture goals concerning reputation, development and work pleasure, even if achieving such goals required spending more time than they were paid for or providing certain activities for free. The chapter revealed how architectural firms are often willing to sacrifice the capture of financial value when they recognize that their professional goals might be endangered, emphasizing the importance of professional value in the value capture of architectural firms.

Further investigation of strategies used to attain firm goals in a project showed how firms' value capture in projects was also largely dependent on their willingness to take financial and professional risks in a project. The research demonstrated how firms took the risk of financial value slippage or accepted that value might slip away in projects that they considered crucial for attaining their longer-term goals. Projects that could have generated monetary value but were considered a liability for the firm's professional goals were generally rejected. This indicates that project-based value capture is largely influenced by the risks a firm is willing to take. The chapter revealed that firms may not necessarily aim for optimally balanced value capture in each project, but may also accept or pursue 'off-balance' projects to attain higher end goals at the organizational level and in the long term.

An investigation of architectural firms' strategy-making in practice revealed how the three aspects of expertise, goals and risks that influence role negotiation and value capture strategies were all associated with professional identity. It was found that actors, when specifically addressing their firm's expertise, goals and risks in a project, continuously attempted to reflect their shared understanding of professional identity in their value capture strategies. Although actors jointly considered strategic alternatives in the strategy process, they often feared that strategic alternatives might be at odds with their professional values and beliefs, which made them more likely to stick with proven strategies.

Building on the insights generated into the different types of strategies that firms used to capture value in a project and the wayd in which these strategies are developed, the research highlights four important aspects that underlie project-based value capture strategies of architectural firms: 1) the professional expertise of the firm, 2) the hierarchy in different organizational goals, 3) the financial and professional risks the firm is willing to take in the project, and 4) the professional identity of the firm.

§ 7.1.2 Project-specific value capture strategies

The insights into project-based value capture can also be used to facilitate the development of project-specific value capture strategies by architectural firms and other organizations. In this respect, the research project answered the second main research question: *How can architectural firms be supported in developing strategies for value capture?* by providing a toolkit for value capture (Chapter 6). This section discusses how the development of project-specific value capture strategies can help firms: 1) to acquire and perform roles in projects that are in line with their professional identity, and 2) to capture both financial and professional value on the basis of that role.

First, project-specific value capture strategies are crucial for ensuring that a firm's role or position matches its professional identity. Studying the processes through which value capture strategies were constructed and reconstructed by architectural firms revealed that firms largely relied on known and proven business 'recipes' or gravitated towards these in their strategizing process. Thereby, they expressed and safeguarded their professional values in relation to a project, even when this project largely required them to diverge from the traditional role on which their experiences with such business approaches are based. At the same time, firms were often inclined to adapt their value capture strategies to the requirements of a specific project to ensure that the

value co-creation in the project proceeded in a manner that allowed them to realize their professional goals. Firms generally did not want to disappoint or annoy their clients and also did not want to jeopardize their own reputation, development and/or work pleasure.

The reluctance of architectural firms to be creative and innovative in their value capture strategies may hinder them in exploring and finding alternatives that are equally or even better equipped to realize their financial and professional goals within the conditions of a specific project. It may also reinforce the undervalued and marginalized position that architectural firms currently often occupy in projects (e.g. Ahuja et al., 2017). The value capture toolkit developed in this research can help firms to identify and detail the specific value capture conditions of a certain role in a project and thereby support a more conscious decision to engage or not to engage in a project.

Second, developing project-specific value capture strategies by finding an equilibrium for the four key aspects – expertise, goals, risks and professional identity – that influence value capture, may support firms in the capture of both financial and professional value on the basis of the role they play in a given project. Strategies should be focused on the pursuit of multiple strategic goals, including financial and professional goals, and therefore revolve around multiple value dimensions. To attain these different strategic goals, decisions regarding the firm's activities and responsibilities in the project are crucial. From a firm perspective, certain activities or responsibilities may be necessary to realize professional goals, while payment for these is fundamental to capture monetary value. In addition, decisions with regard to resources and partners play a key role in attaining intended goals with the available expertise. While the 'right' resources and partners enable firms to create the project quality to which they aspire – which is crucial to capture professional value – a lack of resources or involvement with the 'wrong' partners can seriously complicate the capture of professional value. Decisions with regard to resources and partners are thus strongly related to the financial and professional risks the firm is willing to take in a project. Collaboration agreements and the revenue model adopted by firms in relation to a project determine when and how much financial and professional value they can actually appropriate in the specific collaboration with other project actors.

Making strategic decisions for a specific project facilitates firms to take advantage of specific opportunities offered by the project or deal with the specific risks that a project entails. Substantiating different strategic decisions in relation to one another in a structured manner may help firms to arrive at more consciously developed value capture strategies that are more encompassing and can be better managed over the course of a project. The board game that is part of the value capture toolkit provides a way to do this. It not only addresses the key aspects and relationships that are

important to consider, it also stimulates joint discussion and deliberation. As such, it may help firms to engage in new strategies for a project while safeguarding the professional values that are at stake.

§ 7.2 Theoretical implications and suggestions for future research

The insights into project-based value capture and project-specific value capture strategies of architectural firms developed in this dissertation are particularly relevant to research on: organizational value capture; the management of architectural firms; and business model design processes. The theoretical implications of the research for these three research domains are presented below, with suggestions for future research also provided.

§ 7.2.1 Implications for research on organizational value capture

The findings of this research contribute to the understanding of organizational value capture (Bowman and Ambrosini, 2000; Lepak et al., 2007; Pitelis, 2009) by providing insights into the dynamics of project-based value capture by architectural firms.

Building on the seminal work of Bowman and Ambrosini (2000) and Lepak et al. (2007), who used the classic distinction between 'use value' and 'exchange value' to develop an understanding of the content and process of value capture across multiple levels of analysis, this research added 'professional value' as a third dimension in this interaction, taking both the financial and professional goals of architectural firms into account. This multidimensional conceptualization of value generated specific insights into how the pursuit of professional value capture influenced a firm's financial value capture. Firms intentionally sacrificed the capture of financial value for the capture of professional value both in their ongoing interaction with the client (Chapter 3) and in relation to their own strategies for the project (Chapter 4). This shows that non-monetary dimensions of value not only play an important role in the value capture of firms with multiple strategic goals, but also shape the amount and processes of financial value capture by firms. This indicates that the study of value capture by organizations with multiple strategic goals requires the development of value capture theory around the capture of multiple value dimensions beyond the purely monetary dimension.

Existing value capture research has predominantly focused on how inter-organizational dynamics and dynamics between an organization and its employees influence organizational value capture and may unintentionally lead to value slippage, which should be avoided at all times (Chang et al., 2013; Lepak et al., 2007). This research contributed to this literature by uncovering how dynamics between different values and between the project and the organization influence firm value capture, and by providing fine-grained analyses of how value slippage – which is conceptualized as falling apart into financial value slippage and professional value slippage – can be both beneficial and harmful to firms and, as such, intentionally risked, accepted or counteracted by firms.

This research thereby adds to the literature on organizational value capture by highlighting the role of individual actors in the value capture process. Chapters 2, 3 and 4 revealed that the evolution of a firm's value capture over time is not only triggered by unexpected events (e.g. Chang et al., 2013), but also due to the deliberate use of chosen strategies. The findings of these studies highlighted how conscious strategic actions and decisions within projects, as well as when deliberating on projects, influenced the value capture of firms. By unpacking the underlying reasons for engaging in these strategies, the research showed that value capture-related decisions are indeed driven by objective organizational goals, but also largely influenced by the individual and shared values and beliefs of professionals. In this respect, the research adds to the literature on organizational value capture by emphasizing the important link with professional identity. This suggests that studies that delve deeper into human actions related to value capture, for example by adopting a practice perspective (Nicolini, 2009), have significant potential to enrich the understanding of organizational value capture.

The investigation of the value capture of architectural firms in projects revealed that organizational value capture is influenced by a firm's role in a project (Chapter 2), the hierarchy in multiple organizational goals (Chapter 3), and the role of a project in the firm (Chapter 4). In addition to firm-wide differentiation strategies (Pitelis, 2009), such as the existence and management of rare, inimitable, non-substitutable and valuable resources (Sirmon et al., 2007; Sirmon et al., 2011), or firm revenue models (Amit and Zott, 2012; Zott et al., 2011), strategies may be dependent on collaboration with other organizations. Thus, they can transcend the boundaries of an individual firm and can take multiple forms within one organization. The client-firm and project-firm strategies for value capture that are described in this dissertation thus underline that it is important to study organizational value capture across different levels of analysis (Lepak et al., 2007) to fully comprehend the process and dynamics involved.

The findings illustrate that a project-oriented and multidimensional perspective may be particularly useful to further developing existing value capture theories to encompass the complexities and dynamics that contemporary organizations must increasingly deal with, such as working in temporary, boundary spanning organizations (Sydow and Braun, 2018) or pursuing multiple strategic goals simultaneously (Thompson and MacMillan, 2010).

§ 7.2.2 Implications for research on the management of architectural firms

This research also contributes to the understanding of the management of architectural firms by systematically unravelling the project-specific business processes in such firms. Previous work on the management of architectural firms, which has been remarkably scarce, has often focused on generating typologies of firms based on unique features of their business approaches or management strategies (Canavan et al., 2013; Coxe et al., 2005; Winch and Schneider, 1993). This research offers a more nuanced understanding of architectural business, by highlighting that the business approaches of architectural firms vary on the basis of a wide spectrum of interrelated choices, which in turn span multiple dimensions of value and multiple levels of organizational activities. In addition, it has been shown that these business approaches may even differ across projects.

This suggests that not only projects but also architectural firms are highly heterogeneous and dynamic. However, as the findings also revealed that the heterogeneous and dynamic nature of a firm's project-specific business approach is caged within historically established professional ideals and beliefs, firms may pursue very similar approaches and struggle in explicitly expressing their competitive advantages. This underlines the importance of developing project or solution-specific business models (Kujala et al., 2010; Wikström et al., 2010), and also suggests that research on the management of architectural firms might benefit from more project-specific insights.

Although these insights draw on empirical research in architectural firms, they are likely to be of interest for studying other project-based firms, creative firms and professional service firms. As architectural firms are exemplary of all three types of organizations, the understanding of value capture by architectural firms developed here adds to the literature in each of these specific subfields.

Business related research is still fragmented in these fields (e.g. Laursen and Svejvig, 2016; Martinsuo et al., 2017) and largely focused on developing theories around the management of business rather than investigating how businesses are run on a daily basis. While important contributions in these fields are either focused on firms' financial performance, dominated by a human resource perspective (Bowman and Swart, 2007; Swart et al., 2015), or aimed at explaining business related paradoxes (DeFillippi et al., 2007; Lampel et al., 2000; Manzoni and Volker, 2017); this research provides a more integrated understanding of the dynamics that underlie these businesses and how these are shaped by and in turn shape the value capture strategies of the actors involved.

§ 7.2.3 Implications for research on business model design processes

Currently, scholarly interest in the 'modelling' and 'designing' of business models is growing (e.g. Baden-Fuller and Mangematin, 2015; Palo and Tähtinen, 2013), as it has been recognized that the actions of practitioners to represent their business in a simplified form and to evaluate strategic alternatives on the basis of that overview can spur business model innovation and potentially result in increased firm performance (Aversa et al., 2015; Zott and Amit, 2007). By unpacking the processes through which project-specific value capture strategies of architectural firms are collaboratively constructed and reconstructed by means of the development of a business model, this research provides two main contributions to the literature on business model design processes.

First, by uncovering dynamics in the value capture of architectural firms that arguably would have remained invisible if the focus had been at the overarching level of the firm, this research emphasizes that it is important to investigate the business modelling efforts of actors at the project level when studying project-based firms. This is in line with earlier research, which has shown that business models can exist at the level of a single project (Kujala et al., 2010; Wikström et al., 2010), can vary from project to project (Sabatier et al., 2010), and can emerge bottom-up (Mutka and Aaltonen, 2013). The case-based interviews and observations of case-based strategy meetings also revealed how business model designs were continuously adapted over time. For example, additional activities were performed to attain professional goals, thereby sacrificing the capture of monetary value. This suggests that to understand the business modelling processes of project-based firms, studies need to adopt both a project-specific orientation and process approach.

Second, the research shows how professional identity enables and constrains the business modelling and evaluating efforts of organizational members. By uncovering organizational advantages and disadvantages of the mutually shaping relationship between professional identity and business model strategizing, the research calls for more consideration of identity in the business model literature. Although scholarly attention has been given to how the reciprocal relationship between strategy and identity can potentially support or jeopardize organizational outcomes (Anthony and Tripsas, 2016; Tripsas, 2009), identity remains surpisingly invisible in the literature on business model design. The findings suggest that future research on business model design processes in organizational settings may benefit from taking into account the multiple identities involved.

§ 7.3 Practical implications

The empirical findings of this research and the value capture toolkit that was developed based on these findings add to the overall understanding of architectural business. By unpacking the dynamics involved in the project-based value capture of architectural firms and the complexities associated with the development of project-specific value capture strategies, this research has important practical implications for collaborative work in inter-organizational projects and for architectural firms and other organizations that are involved in these projects.

§ 7.3.1 Implications for collaborative work in inter-organizational projects

This research provides architects and other project actors with insights and tools to collaborate in inter-organizational project settings. It helps architects to adopt more business-minded approaches in their projects. The current lack of such an approach was often criticized by the clients we interviewed, as it causes disturbance in the value co-creation process, which also affects collaboration in a project. Moreover, the research helps clients, partners and other actors who are involved in inter-organizational projects to gain a better understanding of the underlying rationales behind each other's business strategies in projects. This may contribute to the development of shared goals and consequently enhance collaboration.

Adopt a value-centred approach in project work

Practitioners who collaborate in projects on a daily basis are either formally trained or have developed an implicit awareness of the importance of working in a manner that ensures projects are delivered on time, within budget and according to quality standards. The current consensus among project management scholars is that these established criteria of project success, often referred to as 'the iron triangle', provide only a single-sided view of project success (Atkinson, 1999; Shenhar et al., 2001). Clearly, this suggests the importance of taking into account other criteria, such as benefits, stakeholder satisfaction and impact, which largely revolve around the value that is co-created in the project (Laursen and Svejvig, 2016). This implies that project success and value co-creation are intrinsically linked, and suggests that project actors need to adopt value-centred approaches to perform their work in projects (Laursen and Svejvig, 2016). This may not only lead to enhanced project success, but may also contribute to the realization of organizational and stakeholder benefits. By focusing closely on practices of value capture in projects, this research provides practitioners with valuable insights regarding the dynamics that underlie these practices. These insights can be used in the development of value-centred project approaches that are able to address both project and organizational goals.

Customize your approach

The aim of this research is not to provide a one-size-fits-all approach, but to inspire practitioners to develop their own approaches on the basis of the generic information and toolkit that are provided. The more these approaches are tailored to the characteristics and needs of a specific project context, as well as the characteristics and needs of the organizations involved, the more likely it is that these approaches will enhance both project success and organizational benefits. As Chapters 2 to 5 have shown, using overly generic business approaches for projects readily leads to unexpected disruptions, disagreements among partners, or important aspects being overlooked.

Create shared understanding

Collaboration in the development of a value-centred approach is crucial. Discussions about the benefits that are pursued or the approach that is taken and why these are important enhances the shared understanding among project actors with respect to the most suitable value-centred approach for a given project, irrespective of whether these discussions are purely informative or aimed at collaboratively constructing the

approach. Awareness of, and respect for each other's expertise, goals and risks enables actors to monitor and manage the evolution of value over the project's lifecycle. The project-specific value capture toolkit that was presented in Chapter 6 can provide project actors with simple, integrative frameworks to achieve this goal.

§ 7.3.2 Implications for architectural firms

By means of the knowledge and toolkit generated in this research, architectural and other firms may become better equipped to enhance the conditions for value co-creation and capture in the projects in which they are involved. The outcomes of the research will enable firms to assess potential projects in a more structured and integrative way and thereby avoid conditions that might be detrimental. This supports firms in improving their value capture strategies for specific projects and consequently their overall performance.

Develop project-specific value capture strategies

The strategies used by architectural firms to capture value in projects are often based on previous experience and/or intuition and may be redeployed in a rather ad-hoc manner. Considering the fast pace and disruptive nature of ongoing changes in the field and at the societal level, such as the devaluation of established professional roles, this ad-hoc strategy-making seems particularly vulnerable. In order to perform work in viable and professionally satisfactory ways, practitioners may benefit from more conscious and structured strategic decision-making. This research provided a toolkit for developing project-specific value capture strategies. The toolkit aims to inspire practitioners to not only design the project itself, but also their value capture strategy for the project. The toolkit provides architectural firms with opportunities to enhance their value capture from projects and to more consciously analyse and enhance their competitive advantage through their projects (Shenhar, 2004).

Continously improve your strategies

The development of a project-specific value capture strategy is not a one-off activity that only needs to be performed at one specific moment in time. It is an activity that requires constant attention and adaption to deal with changing project conditions. In comparison to the innovation of firm business models, project-specific business

models and the strategies they incorporate require continuous attention, as projects constantly and rapidly change. Systematically engaging in continuous redevelopment of value capture strategies over the entire lifecycle of a project, and for multiple projects, has a number of benefits. It enables firms to create a strong shared understanding of their value capture strategies among their employees. This helps to ensure that employees who are involved in a project are aware of the opportunities and restrictions linked to the project-specific strategy and take these into account in their daily work, thereby contributing to the reshaping of strategy when project conditions change. Continuous redevelopment of project-specific value capture strategies also helps to identify and reflect on tensions as they arise in a project, how these are handled and how they play out over time. This enables firms to learn from their previous strategies in projects and optimize their strategies in future work.

Dare to be bold and creative

This research has clearly highlighted the importance of proven 'recipes' in the project-specific value capture strategies of architectural firms and revealed that these strategies were often chosen because architectural firms considered them more beneficial than alternative strategies. However, this research also showed that project-specific value capture strategies are often not thought through very systematically or in great detail. This implies that alternative strategies could be as appropriate as, or potentially even more appropriate than, established strategies. While firms that engaged in alternative value capture strategies in their projects often encountered many difficulties along the way, they also often substantially benefitted from their work, as it added to the development of their competitive advantage and organizational identity. This also seemed to be the case for firms that actively rejected projects which did not entirely match their ambitions (Chapter 4). Thus, the research findings suggest that bold and creative decisions in project-specific value capture may strengthen organizational identity and increase competitive advantage.

§ 7.4 Implications for education

The insights into the characteristics and challenges of architectural business and the value capture toolkit also have implications for the education of architectural students and practising architects. Although professional education increasingly includes business-oriented courses, business aspects remain largely absent in the graduate

curriculum (Cuff, 1992) and there is 'still a significant gap between the vision of the architect's role, as characterised in schools of architecture and the reality of practice' (Worthington, 2000, p. 22).

Teach a basic understanding of architecture as business

Many respondents in this research argued that they had learned how to run a business the hard way. They emphasized that there is a substantial gap between education and practice in this area, which they were only able to overcome by attracting outside expertise or through mentoring. However, it is generally thought that integrating a comprehensive number of business courses into the educational curriculum would not make sense; architectural faculties are not business schools. Moreover, it might even be at the expense of carefully designed programmes that teach and develop students' integrative thinking and design abilities.

However, the current gap between education and practice could be substantially decreased by teaching students a basic understanding of architectural business. Currently, students only start to comprehend the scope of what architectural work entails once they start working in practice. Professional ideologies of creativity and innovation as they are taught in architecture schools are often difficult to fulfil in daily work, leading to disappointment among architects (Styhre and Gluch, 2009) or tensions in the relationship with the client (Vough et al., 2013). Having an overview of how architectural business works, including the paradoxes that practising architects have to deal with to become and remain successful professionals and entrepreneurs/managers, would no doubt deliver more business-conscious and business-minded architects. This could significantly enrich graduates' abilities to design and benefit from their own business processes when collaborating in the complex, dynamic inter-organizational project settings of everyday architectural practice.

Train business skills

Furthermore, this research shows how architects often need specific business skills or expertise to address the value capture challenges that accompany certain project-specific roles. Not all architects need to have the same skill sets, as they are involved or specialized in different kinds of projects with different kinds of actors. Therefore, an educational programme which allows architects to develop different skill sets would be highly recommended. Ideally, this programme would be focused on graduate architects who are already active in practice. At present, the BNA and BEP are already offering such programmes. However, the courses that are currently offered often concentrate

on very specific topics, when what is required is a fundamental understanding of what is important in running a business, insights into possible ways to acquire the necessary skills to do this, and an open mind when doing so.

Foster a business attitude

Architects often fear that their professional values, beliefs and goals will be endangered by certain business-related decisions. This fear seems to be grounded in a strong professional ethos of providing services that contribute to 'the higher good' , which is deeply embedded in architectural education and the entire professional community. While architects are used to dealing with paradoxes in their everyday work and typically keep these paradoxes 'alive' in order to reach the optimal solution for a project, they are surprisingly quick in resolving the professional-business paradox that they encounter in their value capture strategies by prioritizing the professional side. Based on this insight, I suggest that fostering a business attitude in education might help architects to become more aware of the paradox, better able to cope with it and better able to reflect on the implications of their actions and decisions. Fostering a business attitude does not necessarily require business-related courses. Inviting top managers from famous architectural firms to be involved in architectural programmes will also help students gain an implicit understanding of the need to develop a professional business attitude.

§ 7.5 Reflection on the research approach used

One important overall aim of this research was to gain insights into the project-based value capture of architectural firms that are relevant to both theory and practice. Currently, research that bridges gaps between academia and practice seems to be flourishing. There is not only a trend towards increased funding opportunities for practice-oriented research, but academic interest in research that is relevant to practice and society has also significantly grown (Alvesson and Sköldberg, 2017; Schultz and Hatch, 2005; Van de Ven, 2007). However, criticism of the methods of conducting such research remains persistent and some have questioned whether scientific research can ever be practical (McKelvey, 2006). In the following sections, I present some important reflections on the appropriateness of my approach and the relevance of my findings.

§ 7.5.1 Scientific relevance and limitations of the practice-based research approach

The methodological approach of this research involved a number of biases, which I would like to address in this section. First, I had a strong bias due to my own background in architectural practice. The multidisciplinary research team of the futurA project was instrumental in avoiding the potential negative effects of my own practical bias. During the entire process of research design, data collection, data analysis and data interpretation, I consulted with members of the team on a regular basis. Due to the various backgrounds and affiliations of the team members, I learned how to pursue the academic rigour that is crucial for generating results that are relevant to academia, without having to give up my practice-oriented approach.

To avoid biases arising from mainly mirroring the views of the consortium partners who might pursue their own agendas, I decided not to focus on specific issues in firms or specific cases, but investigated the more generic difficulties and complexities of project-based value capture across multiple organizations and projects. Another kind of bias that accompanied the involvement of our consortium partners was related to the types of firms they represented. Because participation in the futurA project as a consortium partner required a financial contribution to the project funds, the participating organizations were all medium to large-sized established firms. Therefore, some additional firms, including some small-sized and recently established firms, were included in the data collection process to ensure a good representation of the Dutch architectural field in the research samples.

As the research design was aimed at revealing higher level concepts that could be helpful to practitioners, there was a possibility of overlooking highly insightful and innovative findings that may stem from focused, 'pure' academic work. However, since my goal was to do relevant rather than ground-breaking research, I do not consider this to be a significant issue. In fact, it might be argued that the design-oriented research even contributed to greater depth and focus in the empirical research, as it continuously encouraged me to reconsider what the important issues were.

Finally, I focused on the involvement of architectural firms in construction projects and particularly investigated the Dutch context. This raises questions about the generalizability of the findings to other creative and/or professional domains, to other firms that work in projects, and to other countries. Although project-based value capture in these contexts is undoubtedly very different at a detailed level, I believe that the research provides insights that are relevant to these different domains on a more general level. This is supported by the fact that the presentations of my research in different academic communities were all followed by productive and supportive discussions.

§ 7.5.2 Practical relevance of this research

Scientific research is a long process that requires multiple rounds of analysis to arrive at the results and then many rounds of peer-review to have these results disseminated. Therefore, practitioners usually wait a long time before they actually become familiar with and are able to make use of the research findings. This endangers the validity of the results, as they may easily become outdated for practice over an extended timeframe. In this respect, McKelvey (2006, p. 826) argued that 'practitioners need immediate help'. To address this specific issue, the overarching research project, futurA, was designed around a series of 'Living Lab' workshops with our consortium partners to ensure close practitioner involvement during the entire process. In this way, the select group of consortium members regularly received updates about preliminary findings, which they thus already started to become familiar with and use during the interactive workshops that we organized. This enabled them to benefit from their involvement in and funding of the project, while it also enabled us to keep up to date with the current status quo in the field and develop our studies accordingly to ensure that our research results would not be outdated. Preliminary results were also regularly disseminated to a broader audience of practitioners through our project website (www.future-architect.nl), blogs, discussion groups and workshops.

Since the research was designed to investigate overarching patterns across multiple projects and firms, it provides insights into the abstract phenomena of value capture, rather than specific practitioner problems. Schultz and Hatch (2005) argued that practitioners are not interested in an account of the complexities involved in their projects and organizations, as they are more than aware of these. Instead, they particularly need help to 'make sense of it all', which in turn enables them to take appropriate and effective action (Schultz and Hatch, 2005, p. 338). By means of the value capture toolkit, this project attempted to make these higher level abstract concepts and results applicable in practice. My experience as a practising architect with an ability to make choices based on intuition helped tremendously in the development of the toolkit alongside the research. The results and toolkit are intended to spur debate among a wide group of practitioners rather than to focus on the needs of a specific individual or group.

While some practitioners might find the results and toolkit valuable for and/or readily applicable within their organization or project, others will no doubt feel the opposite. This, for example, became clear during the strategy workshops. While one respondent acknowledged that the partners in his firm would never see the value nor take the time to use the project-specific value capture framework, another respondent contacted me afterwards because he immediately wanted to implement the approach in his firm.

Academia and practice are two worlds apart with regard to reasoning and language. The structured methodology and vocabulary employed by academics is typically at odds with the ways in which practitioners are used to working (Bartunek, 2007). This may lead to immediate irrelevance of the results for practice. The close involvement of practitioners was crucial to address this issue. In particular, the blunt feedback of practitioners who were not involved in the consortium helped to find the right words and visuals to get our message across. As one practitioner pointed out, 'if the tool doesn't look good, no architect will use it, no matter how relevant the contents'. This comment was crucial in realizing that it did not matter what we as a research team considered a good fit with practice, we needed the outside 'user' perspectives to enhance the use potential and relevance of our results. This insight led us to develop a practice-oriented book, for which we hired a communications expert and graphic designer.

To conclude, the time and enthusiasm that the BNA and the practitioners involved devoted to this research project throughout the entire four years underline its practical relevance. At the beginning of the research, when many architectural firms were struggling with the effects of the financial crisis, a number of architects mentioned that the research was 'just what is needed'. Although many of the practitioners involved were working at full capacity during the final stages of the research, they were still very interested in being involved and curious to hear the results. A number of participants emphasized how the toolkit had enabled them to gain a better overview of their project strategies, while some even applied preliminary versions within their own projects and organization. This shows that the topic of this research is highly relevant. I hope that this dissertation has opened up new perspectives to studying architectural practice and may inspire others to engage in further investigations of value capture by creative professional service firms.

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DIARY ENTRY, BERGEN OP ZOOM, 24 JULY 1992 (AGE 10)

What I want to be when I grow up: If I make it, I want to go to university later. When I have passed university, I will teach the children at the university. If I do not make it to university, I want to become a baker.

Although my diary entries are limited and only span between 20 July 1992 and 1 May 1996 because I did not like keeping a diary, all job-related entries start with 'I would like to go to university, if I cannot make it, I want to become a farmer' or '... a dancer in 2-Unlimited', or '... a teacher at elementary school'. I remember that my desire to go to university originated in it just sounding incredibly special and impossible to reach. I wonder how, after many side roads, I was able to end up enjoying every day what I already wished for when I was little and what I am still passionate about.

I believe that it all comes down to a number of people who inspired me, supported me and helped me to follow the road that I took. This chapter is devoted to all of these people and I would like to thank them for doing so!

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Curriculum Vitae

Marina Bos-de Vos is a post-doctoral researcher and lecturer in the Product Innovation Management (PIM) department at the Faculty of Industrial Design Engineering, Delft University of Technology, the Netherlands. Her research is part of the NWO funded research project 'Crossover Collaboration for Digital Innovation', which is a collaborative project with the School of Business and Economics at VU University Amsterdam and several industry partners. In 2006, Marina received her Master of Science degree in Architecture, Building and Planning cum laude from the Faculty of Building Engineering, Eindhoven University of Technology. She then worked several years as a practising architect, during which she was involved in several multidisciplinary projects from design to construction. Marina also completed a two-year professional training programme in architecture organized by the Office of the Government Architect. In 2013, Marina started her PhD research in the Department of Management in the Built Environment at the Faculty of Architecture and the Built Environment, Delft University of Technology as part of the NWO funded research project 'futurA – Future Value Chains of Architectural Services'. FuturA was a collaborative project with the Institute for Management Research at the Radboud University Nijmegen, the Royal Institute of Dutch Architects (BNA) and seven industry partners.

Marina is particularly interested in business models and roles of creative professional service firms, processes of value co-creation and value capture and professional identity. Her work is published in the journal of *Construction Management and Economics* and several peer-reviewed conference proceedings. Marina presented

papers at international conferences on construction management, such as the *Association of Researchers in Construction Management Conference* and the *Engineering Project Organization Conference*; as well as conferences on management and organization, such as the *European Group of Organizational Studies Colloquium* and the *Professional Service Firms Conference*.

Awards & grants

2017 Best Technical Paper Award, received for the paper 'Constructing Business Models around Identity: Tensions in Architectural Firms' at the 33rd Annual ARCOM Conference in Cambridge, the UK

2016 Best Poster award, received during the PhD Day of the Engineering Project Organization Conference (EPOC) in Cle Elum, WA, US

2015 'Paul Townsend' Commemorative Award for the best paper contribution in the area of project management, received for the paper 'Prioritizing quality over profit: Value trade-offs within architect-client relations' at the 31st Annual ARCOM Conference in Lincoln, the UK

2014 Grant to participate in a Doctoral School programme organized by IDEA-league

List of publications

Journal papers

Bos-de Vos, M., Lauche, K. and Volker, L. (draft version). Constructing project business around professional identity: business model strategizing of architectural firms.

Bos-de Vos, M., Volker, L. and Wamelink, J.W.F. (under review). Taking risks to play it safe: value capture strategies of architectural firms. Invited manuscript for a special issue on delivering value in projects and project-based business

Bos-de Vos, M., Wamelink, J. W. F. and Volker, L. (2016). Trade-offs in the value capture of architectural firms: the significance of professional value. *Construction Management and Economics*, *34*(1), 21-34. https://doi.org/10.1080/01446193.2016.1177192

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Conference papers (* indicates refereed conference)

Bos-de Vos, M., Lauche, K., and Volker, L. (2017). *How can we make a living from who we are? Identity-strategy negotiations in creative professional service firms*. Paper presented at the 33rd EGOS Colloquium, Copenhagen, Denmark, 6-8 July 2017.

Bos-de Vos, M., Lauche, K., Volker, L., and Wamelink, H. (2015). *Negotiating value in inter-organizational work processes: Insights from architect-client interaction*. Paper presented at the 31st EGOS Colloquium, Athens, Greece, 2-4 July 2015.

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Lieftink, B., **Bos-de Vos, M.,** Lauche, K., and Smits, A. (2014). *Exploring business model innovation in professional service firms: Insights from architecture*. Paper presented at the 30th EGOS Colloquium, Rotterdam, the Netherlands, 3-5 July 2014.

Books and book chapters

Bos-de Vos, M., Lieftink, B.M., Volker, L., Kraaijeveld, J. , Lauche, K., Smits, A.A.J., Tjoa, L.L., Wamelink, J.W.F. (2018). Future roles for architects: an academic design guide. Delft, the Netherlands: TU Delft Open. https://books.bk.tudelft.nl/index.php/press/catalog/book/628

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