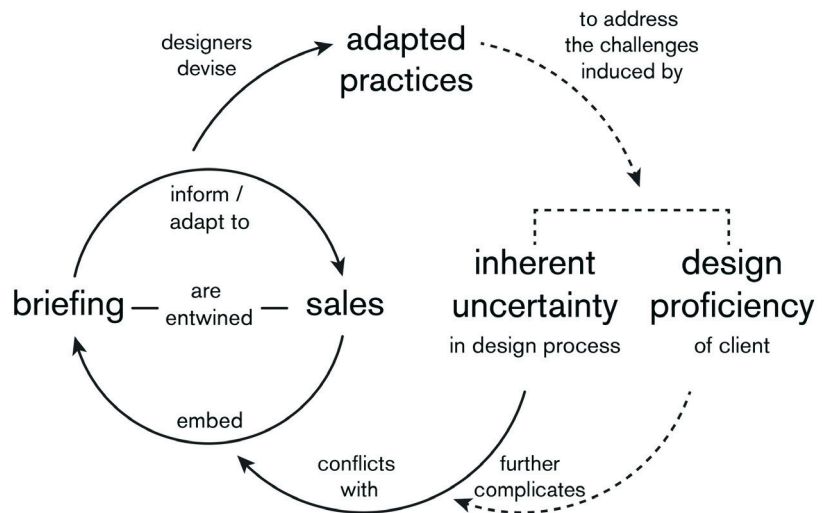


Briefing at the pre-project phase in design consulting

How design consultants navigate through uncertainty while briefing and selling simultaneously

Seungho Park-Lee



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Seungho Park-Lee

Supervising professor

Associate professor Oscar Person, Aalto University, Finland

Preliminary examiners

Professor Stefan Holmlid, Linköping University, Sweden

Dr. Ir. Rianne Valkenburg, Eindhoven University of Technology, the Netherlands

Opponent

Professor Stefan Holmlid, Linköping University, Sweden

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In design consulting, briefing prior to project commission – i.e., the process of communicating and negotiating a project's aim, scope, deliverables and corresponding fee – is an essential first step for designers to get a project commission and establish an initial relationship with a potential client. Although briefing has long been of interest to scholars and practitioners in design, there have been few empirical studies on the real-life context of briefing at the pre-project phase in design consulting, especially in such fields as industrial design and service design.

The aim of this dissertation is to understand the nature of briefing at the pre-project phase in design consulting and its real-life conditions for design consultants. Through three studies of an inductive nature, it reveals how briefing is an embedded part of sales and procurement processes in design consulting, which produces a discontinuity in briefing subsequent to a project commission. Therefore, design consultants are required to predict the full scope of the (potential) project and to detail tasks in creating an offer for a potential client even though the design process inherently involves uncertainties. Briefing at the pre-project phase can be more challenging if clients have little proficiency in using design and do not readily understand the uncertainty and their role for effective collaboration. These real-life contexts challenge the widely accepted notions of briefing as a reflective and iterative dialogue in the context of design consulting and thus call for guidelines for sensible and practical responses for practitioners.

This dissertation shows how design consultants strategised and adapted their briefing practices to prevent and mitigate the above challenges. In dealing with clients, design consultants tailored their communication, codified briefing procedures and productised their services with the intention of both getting more project commissions and achieving better project outcomes. They also developed a sense of strategy in terms of what information they seek and what aspects they emphasise in offer documents based on clients' (perceived) degree of proficiency in using design. Dictated by the legal and organisational requirements, the process of public procurement does not allow design consultants to develop and apply such practices when tendering. The ways in which design consultants and public servants adapted their briefing and procurement practices not only exemplifies the rationale of iterative briefing in design, but also reveals the criticality of effective briefing prior to project commission for a successful project outcome.

This dissertation hereby builds an empirical view on, and practical guidelines for, design consulting practices. It also shows that briefing at the pre-project phase has a significant impact on the success of the project outcome, and hence the likelihood of design consultancies receiving project commissions in the future. Therefore, I would argue that briefing before project commission – however briefly done – yields strategic value for both clients and design consultants.

Keywords briefing, design practice, design consulting**ISBN (printed)** 978-952-64-0402-8**ISBN (pdf)** 978-952-64-0403-5**ISSN (printed)** 1799-4934**ISSN (pdf)** 1799-4942**Location of publisher** Helsinki**Location of printing** Helsinki **Year** 2021**Pages** 247**urn** <http://urn.fi/URN:ISBN:978-952-64-0403-5>

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Ulsan, Korea, 19 May 2021
Seungho Park-Lee

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List of publications and author's contribution

Study 1

Paper 1. First author

Park-Lee, S. & Person, O. (2018a). Briefing beyond documentation: An interview study on industrial design consulting practices in Finland. *International Journal of Design*, 12(3), 73–91.

I was responsible for literature review and data collection. I also took the main responsibility for analysing the data. The research idea and research design were developed in collaboration with Person, who also provided guidance for each step of the process and took part in the preparations for data collection and joined the analysis of the data at important milestones. The manuscript was written in close collaboration.

Study 2

Paper 2. Second author

Person, O. & Park-Lee, S. (in review at the *International Journal of Design*). Offer making for inexperienced and experienced clients: A Delphi-inspired expert inquiry.

Person was responsible for the research idea and design, as well as the conceptual and empirical reasoning developed through the study and in the resulting manuscript. I was responsible for collecting the data for the first of the two stages of the study. The preparations for data collection and the qualitative analysis of the data from the first stage were done in close collaboration. The quantitative analysis was done by Person. Person was responsible for data collection and analysis during the second stage, as well as writing and finalising the manuscript. I assisted in the preparation of the interview stimuli, took part in some of the interviews, provided support during analysis, and contributed to the method and result sections of the manuscript during the second stage.

Study 3

Paper 3A. First author

Park-Lee, S. & Person, O. (2018b). Perspective: the gist of public tender for service design. In C. Storni, K. Leahy, M. McMahon, P. Lloyd, & E. Bohemia (Eds.), *Proceedings of DRS2018: Design as a Catalyst for Change* (pp. 3078–3089). Limerick: Design Research Society.

I was responsible for the research idea, research design, data collection and data analysis. Person advised on research design, provided guidance for key steps during data collection, and took part in elaborating the significance of emergent findings. The manuscript was written in collaboration.

Paper 3B. Sole author

Park-Lee, S. (2020). Contexts of Briefing for Service Design Procurements in the Finnish Public Sector, *Design Studies*, 69, 100945.

I was responsible for the initial research idea, literature review, research design, data collection, data analysis and writing up the manuscript. Person advised on the research design and provided guidance as the advisor and supervisor for my doctoral study.

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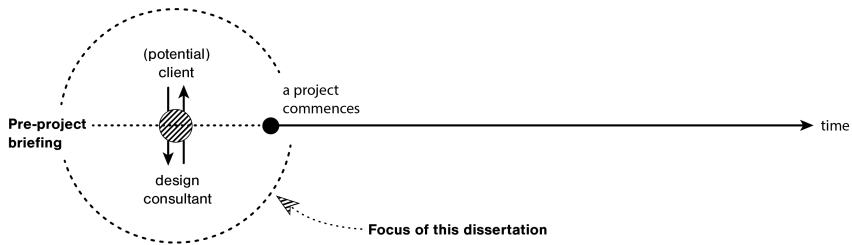
1. Introduction

Design consulting forms an important part of the innovation ecosystem in a nation (e.g., Moultrie & Livesey, 2009), making various contributions to the ways in which organisations use, manage and integrate design (e.g., Bruce & Morris, 1998a; Ravasi & Stigliani, 2011; Roy & Potter, 1993; Tether, 2005). Although many organisations have built internal design capabilities in recent decades (e.g., Burton, 2019; Cooper et al., 2011), working with a design consultancy is still a first step for many client organisations towards making a sustained design effort. Not only do design consultants serve those clients without internal capabilities, but they also supply fresh approaches, specific expertise outside clients' capabilities, and timely execution to those that employ in-house designers (Bruce & Morris, 1998a, p. 42; Jevnaker, 1998a, pp. 127–128). In this way, organisations can improve their performance with appropriate design engagements flexibly (e.g., Black & Baker, 1987; Hertenstein et al., 2005; Ravasi & Stigliani, 2011). As “knowledge brokers” and “challengers of industry conventions” (Ravasi & Stigliani, 2011, pp. 232–233), design consultants can help their clients achieve organisational learning and change (e.g., Eneberg, 2015). To this end, companies maintain “arms-length” and family-like relationships with design consultancies (Bruce & Docherty, 1993), develop a “learning alliance” with consultancies (Jevnaker, 1998a) or even co-locate with consultancies for the reciprocal benefits (Jevnaker, 1998b, p. 17). As the relationship deepens, design consultants increasingly gain insights into the client's organisation, challenges and needs, and become able to ‘speak’ the client's language, whilst also securing a degree of stability for their business (Bruce & Docherty, 1993; Jevnaker, 1998a).

At the beginning of establishing such relationships lies *briefing*, as fostering the underlying trust requires design consultants to carry out many projects with a sustained level of transparency, openness and reliability (e.g., Bruce & Docherty, 1993, p. 415; O'Connor, 2000, p. 27). Using their expertise and reflecting upon experiences from other projects, design consultants carry out an *initial briefing prior to project commission* – the process of communication and negotiation between (potential) clients and design consultants on the aim, scope, deliverables and fee for a prospective project. The resulting *brief* is typically presented as a part of an *offer* with a quotation to the potential client (e.g., Morrison et al., 2011), and later serves as an anchor for both design consultants and clients (e.g., Phillips, 2004; Ryd, 2004b). Once a project is commissioned based on an initial brief, design consultants are expected to manage emergent

changes and negotiate the deliverables throughout a project, and evaluate final outcomes accordingly (e.g., Blyth & Worthington, 2001; Haug, 2015; Phillips, 2004; Ryd, 2004b). These aspects of communication, negotiation and coordination in briefing hold critical implications for design consultants to sustain their businesses, and for the ways in which clients can benefit from such relationships in both the short and long run. To this end, this dissertation sets out to uncover the nature of briefing prior to project commission and the contexts in which design consultants plan the project and estimate the quotation as an embedded part of sales (procurement) processes (Figure 1).

Figure 1 Focus of this dissertation



The importance of effective briefing for successful design consulting engagements has long been emphasised by both scholars (e.g. Bruce et al., 1995, p. 189; Paton & Dorst, 2011, pp. 575–576; Roy & Potter, 1993, p. 189; Ryd, 2004b, pp. 231–234) and practitioners (e.g., Barrett & Stanley, 1999; Blyth & Worthington, 2001; Lupton, 2000; Morrison et al., 2011; Phillips, 2004). Bruce et al. point out that failing to inform external designers about the key indicators early on could lead to the need to allocate substantial resources to fix the resulting problem in new product development (1995). Similarly, Paton and Dorst see the early iteration of the design problem as essential to “reframe both the client’s and designer’s preliminary appreciation of the situation in order to create an actionable view” (2011, p. 575). Blyth and Worthington in their primer on architectural briefing extend this view in stating that “[d]esign is briefing, and briefing relies on design” (2001, p. xi). Ryd echoes this interdependent notion of briefing and designing in a study on briefing in construction processes and argues that “improving briefing process is to improve the business enterprise of the client/user through more satisfactory premises” (2004, p. 248). Considering the importance of effective briefing for design consulting and the role design consulting plays in the broader innovation ecosystem, understanding the real-life conditions of design consultants when briefing with clients forms an important domain of research in design.

Studies dedicated to briefing have mainly been carried out in the fields of architecture and civil engineering (e.g., Bendixen & Koch, 2007; Jensen, 2011; Luck et al., 2001; McDonnell & Lloyd, 2014; Ryd, 2004b; Ryd & Fristedt, 2007, more detailed review can be found in Chapter 2). There are few focused inquiries on real-life briefing practices in other design fields; these include studies on how industrial design students negotiate shared frames in a course (Hey et al., 2007), the different roles graphic designers take for reframing (Paton & Dorst, 2011) and emergent patterns of client requirements in industrial design consulting

(Haug, 2015). Studies that have explored alternative briefing practices include briefing methods for accessible buildings through user involvement (Luck et al., 2001) and inclusive briefing through the use of ethnographic accounts on users (Dankl, 2013). Practical guidelines for effective briefing are also mainly found in architecture (e.g., Barrett & Stanley, 1999; Blyth & Worthington, 2001; Cox & Hamilton, 1995; Lupton, 2000; O'Reilly, 1987; Peña & Parshall, 2012), while a few available guidelines outside architecture have been made available in advertising (e.g., Morrison et al., 2011) and design management (e.g., Phillips, 2004). When compared with one another, such guidelines provide different types of advice that are specific to each of the discrete design fields. For instance, it is recommended for design managers to create a single design brief with clearly stated business goals and detailed reports on the competition, including current offerings in the market, the client's product portfolio and changes in merchandising (Phillips, 2004). In contrast, architects are advised to create various briefs and involve different stakeholders according to the project's progress (Blyth & Worthington, 2001; Ryd & Fristedt, 2007). Perhaps surprisingly, very few briefing guidelines seem to be available for some well-established fields, such as industrial design, and the gap widens when it comes to more emergent fields, such as interaction design or service design. This poses challenges to practitioners, as varying design disciplines require different sets of knowledge and skills (Carvalho et al., 2009, p. 499; Visser, 2009). Further, practical guidelines rarely discuss initial briefing as an embedded part of offer-making before a project is commissioned, the uncertainties involved in planning projects and calculating fees in advance, and its short- and long-term business implications for design consultancies.

Design management literature addresses the challenges design consultants face when initiating projects with clients (e.g., Bruce & Morris, 1994; Hakatie & Ryyänen, 2007; Kurvinen, 2005; Tomes, Oates, & Armstrong, 1998; Tzortzopoulos, Cooper, Chan, & Kagioglou, 2006). Cooper and Press in their primer on design management emphasise the importance for designers to understand the complexity of the clients' operation to ensure successful outcomes (1995). This is echoed by Tzortzopoulos et al., who explored construction clients' early activities in the design process and found that stakeholder complexity can lead to "poor clarity of the organisational structure and of roles and responsibilities of each party" (2006, p. 671). Further, in their multi-case study, Bruce and Morris found that clients often do not fully disclose proprietary information to design consultants prior to a project, especially when a project is considered to be a "one-off" engagement (Bruce & Morris, 1998a, p. 43). Similarly, Hakatie and Ryyänen through a gap analysis on a design consultant-client interaction find that complex design projects can fail when the client overlooks the importance of providing extensive information to designers (e.g., Hakatie & Ryyänen, 2007, pp. 42–44). The situation becomes complicated because, while a design brief functions like an iterative tool for in-house designers, it is typically seen as a "nailed down" document for design consultants due to the contractual nature of their work (Bruce & Morris, 1998a, p. 56). Further, client firms have varying degrees of proficiency in working with (external) designers, which influences

their level of ambition and commitment, as well as their competence in communication and coordination with designers (e.g., *Dmi Toolkit*, 2015; Malmberg, 2017; Micheli, 2014; Ramlau & Melander, 2004; Storvang et al., 2015). Already during the preliminary briefing prior to project commission, therefore, design consultants need to balance the uncertainties that will arise later in the process and the expectations and knowledge of the prospective client in order to secure a project commission. Given these challenges, it would be important to understand how briefing unfolds at the pre-project phase in real-life design consulting and untangle the complexities involved.

Studies on knowledge-intensive business services (KIBS) have explored various aspects in procuring professional business services from clients' perspectives (Lindberg & Nordin, 2008; Smeltzer & Ogden, 2002; Van Der Valk & Rozemeijer, 2009), as well as from providers' perspectives (e.g., Andreini et al., 2015; de Brentani, 1991; Järvi, 2016). However, these studies predominantly bundle a broad range of expertise as KIBS, such as accounting, advertising, architecture, business consulting, engineering, IT consulting, legal services, market research, and research and development. This makes it challenging to discern the specific challenges each consulting profession faces and thus to provide guidelines for practitioners. A number of scholars have referred to the consulting services provided by creative professionals as 'Creative-KIBS' (e.g., Davies, 2009; Miles et al., 2019). In general, studies on C-KIBS tend to express a more granular interest in the practices of consultants and consultancies than the conventional KIBS literature does. That said, with few exceptions – such as Bettiol et al., who explored codification of knowledge management strategies in two “design and communication” consultancies in Italy and India (2012b, 2012a, p. 554) – KIBS literature to date has predominantly bundled various creative fields as C-KIBS, such as fashion design, visual design, branding, packaging design, product design, transport design, spatial and environmental design and architecture (e.g., Abecassis-Moedas et al., 2012; Lehrer et al., 2012; Pina & Tether, 2016). Thus, although design consultancies can be seen as KIBS given that they hire highly specialised experts and often produce intangible outcomes for the benefit of client firms, focused studies on briefing in specific fields of design consulting are still rare in KIBS literature.

Given the lack of focused studies on and practical guidelines for effective briefing in design consulting outside architecture, this dissertation explores briefing at the pre-project phase in design consulting through three inductive and qualitative studies. In doing so, this dissertation aims to shed light on how practitioners in Finland carry out briefing in their “social processes and structures that form part of the context of, and the explanation for, individual behaviours or beliefs” (Lewis & Ritchie, 2003, p. 267). Drawing upon the experiences and concerns of the actors involved (e.g., Braun & Clarke, 2006, pp. 83–86; Flick, 2009, pp. 428–249; Glaser & Strauss, 1967), the research questions (**RQs**) of the dissertation are as follows:

RQ 1. What does briefing entail before project commission in design consulting?

- **RQ 1-1.** How does it typically begin and unfold?

- **RQ 1-2.** What sorts of impacts does briefing prior to project commission have for the work of design consultants during projects?
- **RQ 1-3.** What information do design consultants find relevant when preparing an offer during the pre-project phase?

RQ 2. What role does clients' proficiency in using design play for briefing prior to project commission?

- **RQ 2-1.** What impact is it seen to have for briefing prior to project commission and the subsequent project?
- **RQ 2-2.** How is clients' proficiency in using design conceptualised by practitioners in briefing prior to project commission?
- **RQ 2-3.** How do design consultants prepare and carry out briefing differently according to the (perceived) degree of proficiency of clients in using design?

RQ 3. What are the potential challenges for briefing at the pre-project phase in design consulting?

- **RQ 3-1.** What are the main sources of such challenges (if any) as perceived by the practitioners?
- **RQ 3-2.** What do (can) design consultants (and their clients) do to mitigate or dissipate such challenges?

Study 1 uncovers the professional contexts of briefing at the pre-project phase through inductive thematic analysis (Braun & Clarke, 2006) of interviews with, and briefing-related documents collected from, 19 experienced industrial design consultants in Finland. Given the lack of focused studies on the topic, the qualitative and inductive approach of *Study 1* serves as a starting point for the inquiries of this dissertation, which provides a basis for other studies to build on. Specifically, it responds to **RQ 1-1** by exploring how the consultants initiate project discussions with potential clients, when and how the conversations about a new project emerge, and if and how they prepare for briefing. It also addresses **RQ 1-2** by unveiling that briefing prior to project commission is embedded in the sales process (offer making), and the project plan in the brief (offer) is often challenging to alter due to the budget implications for clients. It also attends to **RQ 2-1**, **RQ 3-1** and **RQ 3-2** by unveiling the challenges industrial design consultants and their potential clients experience during briefing prior to project commission, and how the adapted briefing practices mitigate or dissipate related challenges.

Study 2 extends one of the findings of *Study 1* by exploring how design consultants tailor their briefing at the pre-project phase by aligning their approach with the proficiency of clients in using design through a Delphi-inspired expert inquiry (e.g., Linstone & Turoff, 2002). It responds to **RQ 1-3** by inviting an expert panel to uncover relevant factors and contextualise them through iterative discussions, while also addressing **RQ 2-2** by discerning different ways in which

expert industrial design consultants describe clients' proficiency in using design, reflecting upon their specialisation and clientele. In doing so, the study aims to systematise, and shed light on the reasonings behind, the specific types of information relevant for offer making when briefing with inexperienced or experienced clients (**RQ 2-3 & 3-2**). Further, Study 2 develops a more nuanced understanding about clients' proficiency in using design and its impact on the work of design consultants.

Study 3 explores briefing prior to project commission in public procurements of service design through an inductive thematic analysis of interviews, ethnographic observations and procurement-related documents. Similarly to Study 1, it responds to **RQ 1-1** and **RQ 1-2** by exploring how briefing unfolds in public procurement of service design and uncovering the legal (and organisational) requirements in procurement procedures and how they may limit iterative and interactive communication (**RQ 3-1**). It also attends to **RQ 2-1** and **RQ 2-2** by inquiring into how briefing during the procurement process impacts the work of service design consultants not only from the perspectives of design consultants but also from the views of their (potential) clients in the public sector, making it possible to gain an insight into why challenges occur (**RQ 3-1**) and whether design consultants and public servants can mitigate such challenges (**RQ 3-2**). Further, as discussed earlier, this dissertation produces a parsimonious description about what briefing prior to project commission entails in design consulting and what underpins its context (**RQ 1**) by discerning the commonalities in the findings of Study 1 and 3.

Improving design practice through the development of methods, guidelines and education has long been an outspoken aim of different facets of the design research community (e.g., Andreasen, 2011; Birkhofer, 2011; Cross, 1984; Sanders & Stappers, 2012). For example, Birkhofer in an overview of design practice emphasises the role methodology plays in educating students (2011, p. 1). Similarly, Andreasen sees the role of design research as preparing the ground for teaching future practitioners in a changing world (2011). Scholars have made efforts to describe (and prescribe) design practices and methodologies (e.g., Cross, 1984). The fruition of such efforts range from early works that focused on systematically mapping out the general design process (e.g., Alexander, 1984; Archer, 1984; Jones, 1984) to recent developments that support practitioners in the ever-expanding design field in empathic design, co-design and service design (e.g., Mattelmäki et al., 2014; Sanders & Stappers, 2012; Sangiorgi & Prendiville, 2017; Secomandi & Snelders, 2011). Many of the early inquiries into design practice employed protocol studies in laboratory settings (e.g., Dorst & Cross, 2001; Gero & McNeill, 1998; Goldschmidt, 1997), often with student subjects (e.g., Cross et al., 1994; Hey et al., 2007; Jansson & Smith, 1991; Valkenburg & Dorst, 1998). Overall, methodological choices in studies on design practice have been diversifying (Matthews & Heinemann, 2012). Recent studies rely more on interviews (e.g., Haug, 2015; Paton & Dorst, 2011; Tzortzopoulos et al., 2006), case studies (e.g., Badke-Schaub & Frankenberger, 1999; van Kuijk et al., 2019) and ethnographic observations (e.g., Hakatie & Rynänen, 2007; Lloyd, 2000; Nicholas & Oak, 2020; Stigliani & Ravasi, 2018; Stompff et al.,

2016) as the prime data collection strategies when inquiring into the ways professional designers go about in their daily practice. This dissertation builds on such efforts by pursuing “co-constituted” accounts (Finlay, 2002, p. 218) through “mediated” sensemaking (Ritchie et al., 2014) with design practitioners. This means in practice that the studies in this dissertation acknowledge the significant role researchers play in collecting and analysing data, and therefore actively involve the interviewees in “a more generalized understanding and interpretation” (Finlay, 2002, p. 214). Using research diagrams as interview stimuli (Crilly et al., 2004, 2006), Studies 1 and 3 invited design consultants and public servants at later phases to receive feedback on and add richness to the initial analysis of the interviews and ethnographic observations. Further, through a Delphi-inspired expert inquiry (Linstone & Turoff, 2002), Study 2 recognises that experienced industrial design consultants are experts in their own right and invites them into the research process as important partners in assessing the findings.

In conducting these three distinct studies, this dissertation explores briefing prior to project commission in design consulting by pursuing “paired comparison” (Tarrow, 2010, pp. 243–244) of the practices and professional contexts in industrial design consulting for the commercial sector and in public procurement of service design (more detailed discussion can be found in Chapter 3). It has been widely recognised that the processes of new product development and new service development differ from one another (e.g., Edvardsson & Olsson, 1996; Griffin, 1997; Vargo & Lusch, 2008). For example, the final steps in product development typically engage with engineering and mass production (e.g., Cooper & Press, 1995; Ulrich & Eppinger, 2011), while that of service design is more concerned with human coordination and organisational transformation (e.g., Burns et al., 2006; Polaine et al., 2013, a more detailed analysis will follow in Chapter 2), which inevitably influence the design process, and hence briefing before a project commission. Further, the context of public procurement is known to differ from that of the commercial sector due to the predefined and linear nature of invitation-to-tender (Warland & Mayer, 2017), which may limit reframing of project goals through discussions between involved parties when briefing prior to project commission. Thus, in juxtaposing findings from two widely different professional contexts, the aim is to produce a parsimonious description about what briefing prior to project commission entails in design consulting and what underpins its context.

Such an endeavour is to be pursued with conceptually comparable cases (Sartori, 1991), paying close attention to units of analysis and geographical boundaries (Robinson, 2011, pp. 13–16). Scholars in design have made similar recommendations for such caution in studying design practices in terms of national and disciplinary differences (Dormer, 1993, pp. 9–31), as well as temporal and evolutionary aspects of the profession (Heskett, 2001). With a reputation for being a “design nation” (Kolehmainen & Veinola, 2010), Finland provides a rich context to study design consulting practices through globally recognised companies, such as Fiskars, Iittala, Kone, Marimekko, Metso, Nokia, Suunto and Wärtsilä. Further, Finland is recognised as one of the leading European

nations in employing design to renew public services and organisations (Annala et al., 2015; OECD, 2017, pp. 79–92); its public sector has increasingly been procuring the work of service design consultants since the early 2010s (e.g., Aalto, 2012; Bennes, 2017; Boman-Björkell et al., 2016; Design Exchange Programme, 2013). Following the interpretivist and constructivist tradition (e.g., Ormston et al., 2014), therefore, this dissertation aims to understand professional practices of design consultants “in their temporal and local particularity” (Flick, 2009, p. 21) by conducting all three studies in the Finnish context.

The findings of this dissertation unpack how briefing at the pre-project phase unfolds as a part of sales and procurement processes, during which design consultants need to bridge uncertainties both for client organisations and for themselves. This is because there is often a discontinuity in briefing before and after project commission as opposed to the continuous and iterative briefing practice that is widely fostered in the literature (e.g., Blyth & Worthington, 2001; Cross, 2007; Dorst & Cross, 2001; Ryd, 2004a). This seems to be particularly true when design consultants are preparing the initial brief (offer) for inexperienced clients, as these clients are less willing to venture into the unknown than experienced ones and are inclined to avoid the inevitable uncertainties of the design process. Accordingly, design consultants prepare for briefing differently based on the perceived degree of proficiency and available resources of potential clients in using design. Although the milieu of design consulting does not readily cater for iterative briefing practices, practitioners adapted their briefing practices in the pursuit of more iterative and effective briefing. This dissertation shows that these challenges tend to be more acute for public procurements of service design, as the process is in most cases fully devised by public servants before the consultants are invited to tender and thus the abovementioned adapted briefing practices can rarely be used.

With an ethos of improving design practice, briefing has been referenced as a central activity for successful outcomes in design and design management literature (e.g., Bruce et al., 1995, p. 189; Paton & Dorst, 2011, pp. 575–576; Roy & Potter, 1993, p. 189; Ryd, 2004b, pp. 231–234). However, as discussed earlier, focused studies on briefing prior to project commission in design consulting have been scarce and empirically grounded guidelines have been scant outside architecture. Drawn from real-life design consulting and procurement practices in Finland, the findings of this dissertation explicate the work of designers in briefing prior to project commission and help build more proactive selling and (potentially) buying strategies. In doing so, this dissertation confirms, extends and demarcates (Ladik & Stewart, 2008, p. 163) the ways in which briefing is conceptualised in design and design management literature when applied to the context of design consulting prior to project commission. Therefore, the audience that may benefit from the findings of this dissertation thus comprises researchers in design and design management with a strong orientation towards understanding and improving design practice. Further, the discerned practices and strategies can be useful for design consultants as a benchmark to evaluate and codify their own briefing practices and train junior members of their consultancies. Clients, especially those in the public sector, could also benefit from

the findings of this dissertation in employing and managing external design expertise for their specific situations and needs. The findings of this dissertation could also benefit design educators in preparing their students to understand the dynamics of working with clients with varying degrees of proficiency in using design and preparing them for their early years as professional designers.

2. Literature review

The process of communication and negotiation about the aim, scope, deliverables and budget for a prospective project – *i.e.*, *briefing at the pre-project phase* – takes place in some form in any design project, whether it be within a small enterprise, across several functions of a large organisation, or between clients and design consultants. The studies of this dissertation explore this early phase of briefing between design consultants and (potential) clients in design consulting. The studies are geared towards uncovering what briefing at the pre-project phase entails in design consulting, and what role it plays for the work of design consultants in the resulting projects. It also aims to uncover the potential challenges for briefing at the pre-project phase in design consulting, and what design consultants (can) do to mitigate or dissipate such challenges.

Scholars often conceptualise briefing as an integral part of design knowledge, cognition and process. Lawson described briefing as an integral part of the design process in which designers “transform one set of knowledge about people, behaviour and goals into another set of knowledge about artefacts, connections, structure and physical properties” (2004, p. 59). Cross suggests that briefing requires expert skills, as only few constraints are known at the initial phase and designers (need to) seek relevant information when moving between problem and solution spaces (2007, pp. 99-103). In their interview study with experienced visual design consultants, Paton and Dorst find that designers consider briefing as “a process of negotiation with the client” for shared understanding, values and goals for projects (2011, p. 577).

This parallel of *cognitive* and *social* understanding of briefing as a professional phenomenon strongly manifests in practical guidelines for design management. Cooper and Press in their primer on design management emphasise that ideally managers in different functions, design included, should collaboratively work out a design brief, building a mutual understanding about the aim and scope of the project to prevent undesirable results (1995, p. 265). In the practical guideline on design project management for clients, Boyle considers briefing as “a central coordinating project mechanism” for clients that links various parts of the development process from a novel business idea to design outcomes (2003, p. 33). According to Boyle, briefing brings “control” in selecting an appropriate consultancy, providing a focus to those who contribute to a project, identifying key requirements for a project, and materialising business concepts into design outcomes (2003, p. 33). Phillips, in a guideline for design managers, describes briefing as a process of identifying relevant stakeholders, conducting thorough market research and translating business goals into design strategies in partnership with the client (2004).

In exploring both cognitive and social aspects of briefing, this chapter provides an overview of the literature on briefing prior to project commission. It first identifies a limited body of empirical studies and practical guidelines on briefing practices prior to project commission

outside architecture, making a case for the inductive approach of the studies in this dissertation. It also juxtaposes the disciplinary differences and professional contexts of industrial design consulting for commercial clients and public procurement of service design to establish the ground for “paired comparison” (Tarrow, 2010). It then explores the cognitive aspect of briefing that provides a backdrop for the foci of this dissertation: whether briefing is a linear or iterative process and how this poses challenges for design consultants in briefing at the pre-project phase with (potential) clients. In this light, the chapter discusses the collaborative and social nature of briefing: how the expertise of design consultants, proficiency of clients in working with design consultants, and client-designer relationships may complicate or help mitigate some of the challenges in briefing prior to project commission in design consulting.

2.1 Limited understanding on briefing at the pre-project stage in design consulting

Design consultants face various issues when initiating projects with (potential) clients. Although it is critical for designers to gain a deep understanding of the client’s operations in order to produce a sensible brief (e.g., Tzortzopoulos et al., 2006), clients do not often share all the relevant information with design consultants prior to project commission (e.g., Bruce & Morris, 1998a, p. 43; Hakatie & Rynnänen, 2007, pp. 42–44). Once a project commences based on an initial brief, design consultants manage unexpected situations by negotiating the resulting changes in resources and deliverables (e.g., Blyth & Worthington, 2001; Haug, 2015; Ryd, 2004b). However, once accepted by the client, the initial project plan in an offer made based on incomplete insight can function as a “nailed down” document, making it difficult to alter the plan at later phases (Bruce & Morris, 1998a, p. 56). Further, clients have varying degrees of experience and capability in working with design consultants, which may complicate the situation in setting the aim and delineating the scope (e.g., Micheli, 2014; Ramlau, 2004; von Stamm, 1998).

Given these challenges and importance of early communication and negotiation for both design consultants and their clients, briefing prior to project commission forms a critical consideration for design consultants in sustaining their business, and for client firms in managing their design effort for a successful outcome. A review of extant literature reveals, however, that practical guidelines and research studies are scattered and are more readily available in architecture and adjacent fields than in other subfields of design. It also shows that studies on briefing prior to project commission are rare, and thus the topic is poorly understood and there is a lack of focused guidelines for design consultants.

2.1.1 Scattered literature on briefing in design consulting

Given the importance of briefing in design consulting for both design consultants and their clients, there has been widespread interest in improving briefing practices. For example, from April 1990 to May 1991, the British Design Council’s *Design* magazine ran a two-page article series showcasing an eclectic collection of design briefs and their outcomes, including a light fixture, furniture, hair dryer, car, illustration and building renovation. A few years later, the magazine introduced a template with 11 components for industrial design and new product development; this template includes background information, scope, market research, marketing background, project objectives, the target audience, timing, approvals, budget, constraints and design policies (Gardner, 1995, pp. 10–13). *Computer Arts* magazine facilitated

and reported on a group discussion with design professionals in advertising and digital design about desirable briefing situations (“Is there such a thing”, 2011, pp. 54–57). Practical guidelines for briefing were made available by professional designers and scholars in different design fields, including architecture, building programmes and construction (e.g., Blyth & Worthington, 2001; Lupton, 2000; O’Reilly, 1987; Peña & Parshall, 2012), design management (e.g., Phillips, 2004) and advertising (e.g., Morrison et al., 2011). Scholars also explored different topics related to briefing in various design disciplines, such as architecture, building engineering and construction (e.g., Bendixen & Koch, 2007; Bogers et al., 2008; Luck et al., 2001; Ryd, 2004b; Sterry & Sutrisna, 2007; Tzortzopoulos & Cooper, 2007), graphic design (e.g., Paton & Dorst, 2011) and product design (e.g., Haug, 2015; Hey et al., 2007).

A review of literature reveals that, when compared to other disciplines, there have been a greater variety of practical guidelines on briefing in architecture and adjacent fields, which shows a steady progression and systematisation over time. Since 1963 in the UK, the Royal Institute of British Architects (RIBA) has been providing guidance for the construction process: the *RIBA Plan of Work* (Hughes, 2003; RIBA Plan of Work, 2020). As a guideline for the construction industry, its coverage spans the whole lifecycle of construction from design and construction to handover, occupancy and end of life, as well as the full range of expertise required for construction, including architects, engineers, cost consultants, construction advisors, fire engineers and acoustic consultants (*RIBA Plan of Work*, 2020). As one of the early briefing guidelines in architecture, *Better Briefing Means Better Buildings* lays out key actors and actions relevant to briefing in building design and execution in a compact volume (O’Reilly, 1987). Published by The Building Research Establishment of the UK, the book emphasises basic considerations such as the clarity, priorities, consistency and completeness of a brief, as well as the role it should play in marking important decisions and stimulating “communication and discussion” between involved parties (O’Reilly, 1987, pp. 10–11). O’Reilly also provides 21 points for consideration in terms of “Project identification”, “Aims, resources and context” and “Design requirements” (1987, pp. 14–27). In the US, the term “building programming” has been used interchangeably with “briefing”, which is more frequently used in the UK (Barrett et al., 2005). Defining building programming as a “problem seeking” process, for instance, Peña and co-authors have been publishing primers on architectural programming since 1969 (Pyburn, 2017, p. 12). The seventh edition of the series, for instance, provides basic considerations for briefing, such as the interaction between the “programmer” (experienced architect) and various stakeholders to jointly identify the needs and set out the goals of a construction project, as well as guidelines for documentation in setting out the “problem” to be solved (Peña & Parshall, 2012). Based upon the aforementioned *RIBA Plan of Work* publication series, RIBA made available a series of practical guidelines for architects titled *Architect’s Job Book* (Hughes, 2003, p. 303). The 7th edition of *Architect’s Job Book*, for instance, provides extensive guidelines for architects, encompassing an extensive list of considerations for building projects from the tender process, such as initial statement, cost analysis and selection process, to legal duties and requirements, such as certificate issuance and legislative frameworks (Lupton, 2000). What stands out in this 275-page long guideline is that it exemplifies a multitude of ways in which clients and architects can engage with each other. For instance, it states that an architect can be hired as a design leader or lead consultant, consultant in design and build, project manager, construction manager, planning supervisor or party wall surveyor (2000, pp. 31–37). It also introduces different ways in which the procurement process can unfold for architectural competitions depending on the scale and scope of a project, and how fair

remuneration can be ensured, and even how to inform unsuccessful contenders about the result of a tender (Lupton, 2000, pp. 54–205). Published in 2001, *Managing the Brief For Better Design* (Blyth & Worthington, 2001) shows a clear distinction between different types/phases of briefing, such as strategic brief (for the pre-project phase) and project and fit-out briefs (for the project phase). While they do not provide a checklist as extensive as Lupton (2000), Blyth and Worthington place a strong emphasis on the importance of the briefing process for successful architectural design and its iterative nature and provide lengthy actionable guidelines for different phases. For example, they provide detailed guidelines for identifying and analysing needs for building design in addressing the gap of understanding across different actors (i.e., architects, paying clients and building users), as well as different temporal stages in terms of the building project and occupancy (Blyth & Worthington, 2001, pp. 24–39).

Relying on and adding to these guidelines, research studies in architecture and adjacent fields have explored various aspects of, and devised methods for, briefing in specific situations and purposes. As can be seen in Table 1, the majority of the findings are architecture- and construction-specific. Some studies have explored the value of briefing and corresponding documents to better utilise information and knowledge throughout a project for improved project value (e.g., Jensen, 2011; Ryd, 2004b). Others have uncovered various challenges in briefing in specific settings, including those in working with foreign architectural design firms (Grilo et al., 2007) and financing for public sector infrastructure from public-private partnerships (Kamara, 2012). Various roles of the actors involved in briefing are also explored, such as novice clients' activities at the front-end of the design process (Tzortzopoulos et al., 2006), the role of secondary stakeholders in briefing and designing (Sterry & Sutrisna, 2007) and client-designer collaboration in between different briefing phases (Ryd & Fristedt, 2007). New approaches and methods for briefing are also proposed in architecture, including a new approach for designing accessible buildings (Luck et al., 2001) and for facilitating clients' value creation process (Thyssen et al., 2010).

Table 1 Examples of studies related to briefing practices in architecture and adjacent fields

Themes	Authors (year)	Focus	Key finding	Field	Journal
The roles of briefs and briefing	Ryd (2004)	Client's briefing and the capacity of brief documents as an information carrier	Seeing a brief document as an interactive element focusing on the expectations of parties involved helps enhance the client's business.	Architecture & construction	Design Studies
	Bogers, Meel, & Voordt, (2008)	How and why architects find brief documents useful or not useful in their practices	Involve architects in the briefing process, provide them with extensive information, clarify what is open and fixed, and include both quantitative and qualitative requirements in the brief.	Architecture	Facilities
The ways specific aspects of briefs are communicated and negotiated	Jensen (2011)	Briefing as an inclusive process for user involvement	Briefing is an interactive process throughout a project, in which user requirements are debated between design and construction teams, and the client should play a key role in facilitating the process.	Facility management	Architectural Engineering & Design Management
	Luck (2003)	How user needs can be understood when architects discuss with future users with a disability through a participatory design approach	The social process enabled by the participatory design approach improves the designers' understanding of the future users of the building.	Architecture	Design Studies

Challenges in various briefing situations	Bendixen & Koch (2007)	Role of visual representation in the briefing and design process	Visual representations can be political instruments with prescriptive effects in projects, and play temporal roles set by phase and time.	Building engineering	Building Research & Information
	McDonnell & Lloyd (2014)	How the expected experience of a building gets communicated and negotiated between architect and client	The architect played a role of expert and facilitator in discussing the experiential quality with the client. Clients could not eloquently talk about such quality without seeing a completed building.	Architecture	Design Studies
	Grilo, Melhado, Silva, Edwards, & Hardcastle (2007)	Challenges in hiring foreign design firms	Despite its merits, hiring a foreign architectural firm may lead to a poor briefing and unclear lines of responsibility and insufficient communication. It can also lead to inappropriate design reviews and design incompatibilities.	Architecture & construction	Architectural Engineering & Design Management
	Tzortzopoulos & Cooper (2007)	Design management-related challenges contractors face in architecture and construction engineering procurements and the skills required from their perspectives	Poor clarity on roles, responsibilities and aim as well as lack of skilled design managers call for a need for clear definition of design management for contractors.	Architecture, construction & facility management	Architectural Engineering & Design Management
	Kamara (2012)	Issues around private finance initiatives in the UK for integration in the project development process between the client and project organisations	Although private finance initiative procurements offer a framework for the lifecycle integration of a building, they do not really address the challenges in implementing the lifecycle management of the actualised building between the private sector organisation and public sector client.	Building management	Architectural Engineering & Design Management
Exploring the roles of various actors in briefing	Tzortzopoulos, Cooper, Chan, & Kagioglou (2006)	Novice client's activities at the front-end of the design process in construction	Novice construction clients need support to understand and play their roles at the design front-end, not only in terms of the information required, but also the useful level of detail, the resources required for designing, and what types of support to expect from designers especially in bidding situations.	Architecture & construction	Design Studies
	Sterry & Sutrisna (2007)	Identifying the role of secondary stakeholders in briefing and designing	Despite the consultations undertaken, the secondary stakeholders were not clearly defined, and their needs were not appropriately reflected in the final building design. These stakeholders are considered to be challenging to engage with due to their volatility, and the consultations are treated more as public relations activities.	Architecture & construction	Architectural Engineering & Design Management
	Ryd & Fristedt (2007)	The role of client-designer collaboration in transforming the strategic brief into project briefs at the Swedish postal service	Briefing is a dynamic process in which all involved parties adopt the overall goals. Ten factors were discerned for the transition from dynamic briefing towards nationwide implementation (incl. trusting collaboration, business and premises planning at an early stage, clear targets and continuous communication for those involved).	Architecture & construction	Construction

Proposing and exploring new approaches and methods for briefing	Luck, Haenlein, & Bright (2001)	Proposing a new project briefing approach for accessibility in building design	Existing briefing methods do not necessarily cause imbalance for accessibility, but the manners in which the user information is gathered and used do. The use of semi-structured interviews, an information-based feasibility test and steering group meetings is proposed as an alternative.	Architecture & construction	Design Studies
	Yu, Shen, Kelly, & Lin (2006)	Postulating a new value management tool for strategic briefing	Five value management tools (incl. issue analysis, client value system, timeline) were tested in a fictitious workshop for strategic briefing. The usefulness was evaluated through a survey.	Architecture & construction	Architectural Engineering & Design Management
	Thyssen, Emmitt, Bonke, & Kirk-Christoffer sen (2010)	Postulating a new workshop approach for facilitating clients' value creation based on value management and lean thinking	It is important to embrace changes that occur due to newly found insight and changes in values (needs) over time.	Architecture & construction	Architectural Engineering & Design Management
	Reifi & Emmitt (2013)	Perception of lean design management in architecture, engineering and construction	Deficient procurement based on the idea that design issues can be dealt with during the construction phase can lead to an inefficient designing phase. Lean thinking can help address challenges in design management (incl. briefing) and procurements in architecture, engineering and construction. However, the method should be customised to the specific context, as each project is unique.	Architecture, engineering & construction	Architectural Engineering & Design Management

A few themes can be found from these studies on briefing in architecture and adjacent fields that might also be interesting to explore in other design fields, even if they are not directly applicable. First, they highlight basic principles for effective briefing, such as a trusting relationship and early involvement, that could be beneficial for more successful outcomes in any field of design. For instance, Ryd and Fristedt enlisted the foundational elements for successful transformation from strategic brief to project briefs, such as trusting collaboration, planning at an early phase, setting clear targets and maintaining continuous communication across the parties involved (2007). Similarly, Bogers, Meel and Voordt find that architects prefer to be involved early in the briefing process, to receive ample information from clients and to learn which issues are fixed or open (2008). Second, the studies explore varying roles and the degrees of experience necessary of the parties involved in briefing that forms a basic concern for design consultants. For example, Tzortzopoulos, Cooper, Chan and Kagioglou find that novice construction clients need support to appropriately play their roles at the front-end of the design process not only in terms of the information required but also the level of detail required, the resources necessary for designing and the types of help that can be expected from architects (2006). Conversely, Tzortzopoulos and Cooper called for more clearly defined design management on the part of contractors to address poor clarity of roles, responsibilities and aims in architecture and construction engineering (2007). McDonnell and Lloyd observe that architects play the role of an expert facilitator in exploring the experiential quality of a building, as clients often cannot eloquently discuss such quality without seeing a completed building (2014). Finally, the studies also highlight the importance of iteration in briefing, and appropriate tools and methods, which has been normalised in studies on framing in design (e.g., Paton & Dorst, 2011; Stompff et al., 2016). For example, Ryd through a longitudinal case study

concludes that considering briefs as a tool for interaction and iteration focusing on the expectations of involved parties helps achieve clients' business goals (2004). Congruently, in an explorative study testing a workshop method based on value management and the lean approach, Thyssen, Emmitt, Bonke and Kirk-Christoffersen argue for the importance of embracing changes that occur over time due to newly found insights (2010). Jensen in a case study of a large architectural project of a broadcasting company emphasises the proactive role clients should play as facilitators of an interactive briefing process for improved reflection for user needs (2011).

Practical guidelines relevant for briefing outside architecture and adjacent fields are less common. Authored from design managers' perspective, *Creating the Perfect Design Brief* provides detailed guidance for writing and managing design briefs for design managers (Phillips, 2004, 2012). Although Phillips does not specify the fields of design the book applies to, the project examples included in the text suggest that he considered branding work, graphic design and package design. Similar to Ryd and Fristedt (2007), Phillips emphasises the importance of forming a "design brief project team" with co-owners of the project to set clear aims and establish a sense of partnership across the organisation (2004, p. 25–27). Made available by five industry and professional associations in the U.K., *Briefing an Agency: A best practice guide to briefing communications agencies* is a guideline for client firms that hire advertising and communications consultancies (Morrison et al., 2011)¹. It provides a simple eight-component guideline for creating client briefs in everyday language, such as "Where are we now?", "Where do we want to be?" and "How will we know we've arrived?" Despite the difference in their fields and extensiveness (Phillips provides more detailed guidance and explanations in length), they both advocate for setting down key aspects of a project in written documents (briefs) to foster collaboration prior to a project commission and avoid miscommunication once a project commences.

Primers on design management and product development indirectly touch upon briefing while shedding light on broader considerations for organisational contexts and more longitudinal perspectives for product development. Cooper and Press put forward key contents of design briefs, including: company background, design problem, design specifications, product attributes, consumer and market information, costs & budget and timescale (1995, p. 266). In line with Phillips (2004), they maintain that design is relevant to all functions of a firm (Cooper & Press, 1995). That said, they also address the broader relevance of design, spanning research and development, manufacturing, marketing, finance, sales and human resources (1995, pp. 150–186), perhaps because they are more concerned with the design management of a firm, while Phillips is more concerned about a systematic process of brief creation for a design manager. Indeed, Cooper and Press argue that design is chiefly concerned with bringing a firm's innovation to the market, and that organisational support, culture and structure are required to successfully do so (1995, p. 168–172), while Phillips emphasises the role of briefing in strategically implementing a plan for a marketing goal (2004). Without using the specific term "briefing", Ulrich and Eppinger postulate a systematic process that resembles briefing within the product development process using such terms as "mission statement" and "charter" as essential parts of a "contract book" (2011). Similarly, Bruce and Cooper postulate a framework

¹ The co-signatories of this recommendation booklet are the Communications Agencies Forum (CAF), the Institute of Practitioners in Advertising (IPA), the Incorporated Society of British Advertisers (ISBA), the Marketing Communication Consultants Association (MMCA) and the Public Relations Consulting Association (PRCA).

for “requirement capture” in the context of product development and innovation management, in which briefing is discussed in terms of informing design consultancies (2000). What the majority of these primers have in common is that they are written from the perspectives of design managers and/or designers working in client firms.

Focused research studies on briefing practices outside architecture and adjacent fields have been few in number and scattered across different design disciplines (Table 2). The topics of such studies include the patterns of requirement elicitation in product design consulting projects (Haug, 2015) and the strategies and roles that visual communications designers employ to (re)frame projects with their clients (Paton & Dorst, 2011). Haug identifies eleven sources for change in clients’ requirements during projects in industrial design consulting, where he finds that the consultants do not take proactive actions to prevent problematic requirements (2015, p. 62). On the contrary, the findings of Paton and Dorst imply that the ability of designers to help clients reframe the project may depend on the relationship formed (2011). Studies on framing that touch upon briefing as a context of cognitive activities have explored shared framing among industrial design students (Hey et al., 2007), the impact of unexpected events for reframing in multidisciplinary teams (Stompff et al., 2016) and the role and limitations of co-evolution in reframing (Dorst, 2019). By observing multidisciplinary design teams of professionals, Stompff et al. find that (re)framing is a “socially constituted process” (2016, p. 211) requiring much effort to build a connection between designing and organisational sense-making. Through theoretical exploration, Cross calls for intentional co-evolution of problem and solution (2019). Explorative studies have proposed new ways for conveying users’ needs and capabilities in briefing (Dankl, 2013; McGinley & Dong, 2011) and for problem elaboration in mechanical engineering (Cartmell, 1995; Cartmell et al., 1993).

Table 2 Examples of studies on briefing and framing in design outside architecture and construction

Theme	Authors (years)	Focus	Key finding	Context	Journal*
Briefing	Haug (2015)	Emergent pattern of elicitation in clients’ design requirements	Five patterns (mechanisms) and 11 sources for change in clients’ requirements: six unknown requirements and five known, but redefined requirements.	Industrial design	Design Studies
	Paton & Dorst (2011)	How experienced designers reframe problems with their clients	Four different modes of design consultants in briefing (technician, facilitator, expert, collaborator) and strategies for reframing (abstraction, language co-creation).	Graphic design	Design Studies
Framing–	Hey, Joyce, & Beckman (2007)	The interactions and activities that reveal, and help share, frames within multidisciplinary teams of students	Influence of individual and shared frames in the early stages of new product development and four phases of the framing cycle.	Industrial design & product development	Journal of Design Research
	Stompff et al. (2016)	The impact of unexpected events for reframing in multidisciplinary teams	Reframing is a “socially constituted process” (p. 211) and a connection between design and organisational sense-making that requires much time and work of design teams.	Product design (product service system)	Design Studies

	Dorst (2019)	The role and limitation of co-evolution in re-framing	Co-evolution of problem and solution necessitates openness beyond the original problem space, and intentional co-evolution is crucial for the design profession.	Theoretical (examples: product design and crime prevention)	Design Studies
Explorative	McGinley & Dong (2011)	Introducing the development of an online tool for communicating user capabilities, needs and wants	Barriers that limit incorporating ergonomic insights with other useful data for an inclusive design process (incl. unclarity on what information from the client was deemed more important, too much information that overwhelms designers).	Environmental design (crime prevention)	The Design Journal
	Dankl (2013)	Introducing a narrative-oriented approach for writing an inclusive design brief	An argument that an empathy-driven process can help designers focus on the needs of users.	Inclusive design & applied art	The Design Journal

*To gain a comprehensive view on the extant literature on briefing outside architecture, I surveyed by late 2020 the six general design journals listed in the worldwide ranking in Gemser, de Bont, Hekkert and Friedman (2012): Design Studies, Design Issues, Journal of Engineering Design, International Journal of Design, The Design Journal and Journal of Design Research. I also cross-examined the references in the papers found in these outlets.

Similarly to the aforementioned primers on product development and design management, studies in design management indirectly discuss briefing in terms of the challenges in working with and effectively managing external designers (e.g., Bruce et al., 1999; Bruce & Docherty, 1993; Bruce & Roy, 1991; Hakatie & Ryyänänen, 2007; Ravasi & Stigliani, 2011; Smith & Rhodes, 1992; von Stamm, 1998). By analysing 221 projects from the Funded Consultancy Scheme powered by the UK's Department of Trade and Industry and Design Council, Bruce and Roy recommend client firms to allocate dedicated personnel to manage design and systematically develop briefs for successful project engagements with external designers (1991). By analysing how SMEs in the UK invest in design, Bruce, Cooper and Vazquez recommend that training for design management should be provided to SMEs in terms of "sourcing, briefing, liaising and evaluating" (1999, p. 297). Emphasising "thoroughness in information" and a structured approach, Smith and Rhodes provide a guideline for "product design specification" with 32 sub-factors in eight categories (1992, p. 287). By analysing varying types of relationships between client firms and design consultancies in Denmark, Sweden and the UK, Bruce and Docherty conclude that "the wealth of knowledge acquired" from a "close working relationship of a long-term nature" can help reduce friction in briefing and produce "appropriate design solutions" (1993, p. 421). Through gap analysis of a research and development project in a large Finnish firm, Hakatie and Ryyänänen find that one of the challenges for external designers in serving clients is the lack of access to the clients' management team (2007).

As discussed thus far, the number of studies that focus on briefing prior to project commission in design consulting is scant, and thus the real-life context for design consultants during briefing at the pre-project phase in these fields is poorly understood. This assessment is corroborated by the ways in which briefing literature is referenced in a number of studies. For instance, touching upon the role of effective briefing for successful design engagement for small and medium-sized enterprises, Ravasi and Stigliani (2011, pp. 237–238) cite Phillips (2004) as the only practical guideline available on design briefing. Also, citing Hey, Joyce and

Beckman (2007) as the only relevant study to briefing, Paton and Dorst argue that “[w]hilst the idea of a brief as a starting point for projects is widely accepted, the activities associated with the creation of a brief and the negotiations for its (re)definition are not often examined” (2011, p. 575). As a result, the real-life briefing practices of design consultants remain sparsely explored in research, and the extant literature does not readily provide empirically grounded, “actionable advice to creative practitioners” (Dorst, 2019, p. 74), especially on briefing before project commission.

This is a significant gap, as design disciplines differ from one another in terms of their artefacts, tools, knowledge, process, involvements and social aspects (Visser, 2009) and how knowledge and skills are appreciated and respected (Carvalho et al., 2009, p. 499). Reviewing the essential content of a design brief put forward by practical guidelines confirms such disciplinary differences (Table 3). For example, briefing guidelines in architecture designate the changing use of buildings over time as an essential consideration (Blyth & Worthington, 2010, pp. 72–74; Peña & Parshall, 2012, p. 20), while guidelines in design management emphasise the importance of understanding the current market and analysing the competition (Phillips, 2004). Also, the varying number of brief documents to be used in projects shows that project engagements may unfold differently in different design disciplines, as it is recommended that multiple briefs should be used for different phases of the building process in architecture (Blyth & Worthington, 2010), while Phillips recommends design managers to utilise a single brief throughout a project (2004).

Table 3 Essential content of briefs as postulated by different authors (emphasis mine)

Source	Field	Emphasis	Number of brief documents	Content of a brief
Blyth & Worthington (2010)	Architecture	Changes in building use occur over time, and therefore <u>various briefs shall be developed and used</u> for different types and phases of design and building projects <u>involving different user groups accordingly</u>	5 (<u>urban brief, strategic brief, project brief, fit-out brief, and furniture brief</u>)	Vision statement; Objectives; Priorities; Needs and requirements; Growth and change; Management and decision-making; Timeframe; Measures for success; Who is responsible to respond (pp. 72-74)
Peña & Parshall (2012)	Architectural programming	Holistic approach that strikes a balance between function, form, economy and <u>time</u> , only experienced and trained designers (architects) can do briefing (architectural programming)	– (Unspecified)	Function (people, activities, relationships); Form (site, environment, quality); Economy (initial budget, operating costs, life-cycle costs); <u>Time: past, present, future</u> (p. 20)
Cooper and Press (1995)	Design Management	Design touches upon <u>all functions of a company from marketing to manufacturing</u> , and therefore designers should be involved in creating the brief as early as possible	– (Unspecified)	Company background; Design Problem; Design Specifications, Product Attributes; <u>Consumer and Market information</u> ; Costs & Budget; and Timescale (p. 266)

Ulrich & Eppinger (2011)	Product Development	“Mission statement” (brief) is the outcome of an <u>opportunity identification process</u> , which will be included in the “contract book” with a comprehensive list of items relevant for project management	1	Mission statement includes: Product Description; Benefit Proposition; <u>Primary Market; Secondary Markets</u> ; Assumptions; Stakeholders (p. 76)
Phillips (2004)	Design Management (branding, graphic design, & packaging)	<u>Design brief shall be written in a partnership</u> between designers and the rest of the functions of a company and involving various stakeholders (e.g., the sales organisation, manufacturing, procurement).	1	Project Overview and Background; <u>Category Review; Target Audience Review; Company Portfolio</u> ; Business Objectives and Design Strategy; Project Scope, Time Line and Budget; Research Questions; Appendix (pp. 28-48)

2.1.2 Lack of focused studies on briefing in KIBS literature

The gap persists when the search is broadened to knowledge-intensive business services (KIBS) literature. Design consultancy is a type of KIBS, as “KIBS can be described as firms performing, mainly for other firms, services encompassing a high intellectual value-added” (Muller, 2001, p. 6). Naturally, the aspects of communication, collaboration and relationship in design consulting (e.g., Blyth & Worthington, 2001; Morrison et al., 2011; Phillips, 2004) have also been of interest to scholars that study KIBS. For example, through interviews with buyers at eighteen large industrial companies, Lindberg and Nordin found that professional consulting services are akin to service dominant logic, in which “the need is specified jointly, the specifications are co-created, and where relationships between buyers and sellers of the services are closer and longer term” services (2008, pp. 298–299). Through an extensive review of literature and a large number of interviews with KIBS of varying sizes, Aarikka-Stenroos and Jaakkola developed a framework for “value co-creation through joint problem solving” (2012, p. 17). Through surveys of 238 Italian KIBS firms, Cabigiosu and Campagnolo find that collaborative relationships with clients foster the ability to develop, and offer customisation for, successful new product innovations (2019).

A prominent feature across KIBS literature is that a broad range of expertise is treated as a single homogeneous group, which can be justified given that the vast majority of studies in KIBS are large-N studies. However, this tendency to engage in bundling often holds true for qualitative studies in KIBS literature. As one of these qualitative studies, the aforementioned framework by Aarikka-Stenroos and Jaakkola was developed through interviews with consultants in advertising, accounting, engineering, finance, HR, IT consulting, R&D, legal, marketing research, management and media communication (2012).

This tendency to bundle a multitude of expertise in KIBS literature has increasingly been challenged by scholars (e.g., Li et al., 2019; Miles et al., 2019; Pina & Tether, 2016). A number of studies employed the classification of technology-oriented KIBS (T-KIBS) and professional KIBS (P-KIBS) (e.g., Doloreux et al., 2019; Miles et al., 1995; Rodriguez et al., 2017). This dichotomy associates T-KIBS with computer, engineering, R&D and science expertise and P-KIBS with accounting, legal, management and marketing expertise (Rodriguez et al., 2017). These two subcategories of KIBS correspond to the earlier categorisation of “hard” and “soft” services in service business internationalisation literature (e.g., Erramilli & Rao, 1990).

According to Majkgård and Sharma, hard services are “more tangible, and standardized and less customized”, while soft services are “more intangible, non-standardized and customized, and their production can not be separated from consumption” (1998, p. 15). Still, the work of design consultants in many ways seems to be situated in between these dichotomies in that they often deal with both technical and professional consulting aspects simultaneously. For example, industrial design consultants address technical aspects in providing a discrete design solution to their clients (e.g., shape and usability of a product), while also providing guidance to the clients’ activities in broader activities and decision making (e.g., branding and marketing aspect of a product design).

In recent years, studies have distinguished Creative KIBS (C-KIBS) from T- and P-KIBS for its expertise in cultural and creative knowledge (e.g., Davies, 2009; Miles et al., 2019). In general, studies on C-KIBS tend to express more granular interests in the practices of consultants and consultancies than the conventional KIBS literature. For example, through interviews with founders and directors of three creative KIBS firms, Lehrer et al. found that C-KIBS and clients sometimes regulate each other’s involvements during certain phases of a project to ensure better outcomes (2012). Simoni et al. discerned archetypes of “designer portfolio configurations” by analysing how design-intensive businesses manage external designers and utilise their reputation for a competitive edge in marketing (2019).

However, with the exception of Bettiol et al., who explored standardisation and marketing strategies for offerings in medium-sized design consultancies in Italy and India (2012b, 2012a), studies in KIBS to date still seem to bundle various creative fields as C-KIBS. In the abovementioned study, Lehrer et al. interviewed professionals from three rather different C-KIBS, namely a multidisciplinary consultancy with an industrial design origin, an advertising agency with a visual design origin and a marketing agency with a cultural origin (2012). In discerning the modes of internalisation strategy, Abecassis-Moedas et al. looked into 11 design consultancies in five European nations that specialise in product, packaging design, visual and branding work, visual, spatial and environmental design, architecture and transport design (2012). They find that international consultancies take either one of what they term as “star-based, process-based, and glocality-based” strategies (Abecassis-Moedas et al., 2012). Pina and Tether analysed varying knowledge bases of five subfields of KIBS from the standard industrial classification of economic activities (SIC) of the United Kingdom through the synthetic-analytical-symbolic (SAS) model (2016). Here, architecture and engineering are grouped together, while industrial design is seen as a “specialist design” and together with fashion design. This is surprising, as industrial design and fashion design are widely different in their characteristics and required skills, while industrial design and engineering are often considered as disciplinarily adjacent to each other with overlapping

Similarly to how KIBS scholars differentiated their research field from that of product-based firms (Pina & Tether, 2016, p. 401), the methodological approach of bundling multiple creative fields in C-KIBS literature serves the purpose of discerning similarities across creative professionals and distinguishing them from broader KIBS. However, such an approach may also pose challenges in developing a nuanced understanding of the professional practices of design consultants. Consequently, KIBS literature does not readily provide insights into the real-life practices of design consultants in a specific design field or actionable guidelines for their day-to-day work context.

2.1.3 Industrial design consulting and public procurement of service design consulting

All in all, studies that focus on briefing prior to project commission in industrial design consulting and service design consulting are few, while there is a limited body of practical guidelines and empirical studies on briefing in design and design management literature outside architecture and adjacent fields. To address the gap in the literature, this dissertation pursues a “paired comparison” (e.g., Tarrow, 2010) of two rather different, yet seldom explored contexts for briefing prior to project commission in industrial design consulting and public procurement of service design. While a more detailed methodological discussion can be found at the beginning of Chapter 3, this section focuses on the differences between the two contexts found in literature to examine how these differences may have an impact on briefing. In doing so, the underlying assumption is that the nature and characteristics of industrial design (for mostly commercial clients) and service design in public procurement may also shape the contexts within which design consultants carry out pre-project briefing.

First, the differences between products and services have long been recognised by scholars. Products are typically mass-produced before any customer can lay her or his hands on them and thus the quality of the products does not change, whereas services are created simultaneously as they are being provided to the customers and therefore the quality of services may vary based on who delivers them and when (e.g., Easingwood, 1986). This “simultaneity” is echoed by others who define the typical characteristics of services as: inseparability, heterogeneity, intangibility and perishability (e.g., Cowell, 1988, pp. 297–306; Lovelock, 1983). Also, customers are seen as playing a key role in the co-production of service delivery, whereas they rarely play such a role for a purchased product (e.g., Edvardsson & Olsson, 1996).

This physical and static notion of products and intangible and perishable notion of services are also reflected upon in new product development (NPD) and new service development (NSD) literature (Table 4), which may have an impact on briefing in design consulting in these two fields. Based on a survey of 275 firms in Australia, Atuahene-Gima concludes that manufacturers focus primarily on innovation and product quality during NPD, while service companies pay utmost attention to their strategy for human resources during NSD (1996). Through a meta-analysis of product development literature and surveying 383 American firms, Griffin found that NPD typically engages in a long development cycle that pays great consideration to manufacturability, while NSD involves more frequent “concept generation” activities with a shorter development cycle (1997). Further, in surveying 322 Dutch companies that are either product-based or service-based, Nijssen et al. (2006) conclude that expertise in research and development is more important for successful NPD, while the willingness to change organisational routines is more important for successful NSD. Similarly, Vargo and Lusch postulated that products are more reliant upon production, supply chain and distribution of finished products, whereas services are more reliant upon operation in situ and networked co-creation with customers and others (2008). Thus, they argued, manufacturers can deliver value that resides in the product themselves, whereas service firms “cannot deliver value, but only offer value propositions” (Vargo & Lusch, 2008, p. 7). Congruently, Perks, Cooper and Jones find that the roles of designers, especially external ones in the context of NPD, are mostly concentrated on concept developing, designing and production (2005), while Polaine et al. in service design consulting consider training clients to empathise with users as a critical contribution of designers (e.g., Polaine et al., 2013).

Table 4 Comparison of the characteristics of product (NPD) and service (NSD)

Authors	Aspects	Product (NPD)	Service (NSD)
Edvardsson & Olosson (1996)	Process	Result of a production process	Result of co-production between provider and customer
	Visibility	Visible / Tangible	Invisible / Intangible
	Timespan	Lasting	Temporary
	System flexibility	Closed system / fixed and unchangeable	Open system / extendable and changeable
Atuahene-Gima (1996)	Differential factors	Product innovation advantage and quality	Human resources strategy
Njissen et al. (2006)	Factors for successful development	Research and development capability	Willingness to cannibalise organisational routines and prior investments
Vargo & Lusch (2008)	Delivery of value through	Production, supply chain, distribution	Operation in situ, networked co-creation with customers and others
	Value promise	Products themselves	Value proposition for services to be actualised on spot

In sum, the ways in which new products and services are developed are different from one another, which is also reflected in product design and service design literature. It typically takes years to design a new product, as each design needs to go through multiple phases with different experts involved, such as concept design, design engineering, mechanical engineering, prototyping, and load and stress tests before market introduction (e.g., Ulrich & Eppinger, 2011). Therefore, interfacing between different stages is an essential consideration for briefing at the pre-project phase in industrial design consulting. In contrast, the peculiarities of service design – namely simultaneity of service and value delivery, prominent involvement of users and other actors in service co-creation (e.g., Holmlid et al., 2015), and thus the importance of enhancing the capabilities of the client organisation and relevant actors (e.g., Burns et al., 2006) – might have implications for briefing at the pre-project stage for service design consultants.

Second, a few studies have found differences in servicing private sector clients and public sector ones. As public sector organisations are required to satisfy demands for fairness and openness in the procedure (e.g., Benner et al., 2004; McCue et al., 2015), the context of briefing in public procurement is likely to differ from that of design consulting for commercial clients. The delivery of public goods and services is complex by nature, and thus coordination of various actors becomes crucial for successful procurement and implementation (Benner et al., 2004). Scholars have observed that the involvement of a large number of stakeholders is one of the key characteristics of public procurements (Edler et al., 2005). Also, the pursuit of flexibility and efficiency for a successful outcome in public procurement often conflicts with the demand for transparency, accountability and control (McCue et al., 2015, pp. 182–185).

According to Warland and Mayer, the real-life conditions and peculiarities of public procurement for KIBS firms have not been extensively studied until recently (2017). To address this gap, they produced a comparison between the characteristics of interactions KIBS firms can have with private sector and public sector clients based on discussions on the KIBS client relationships, and an in-depth analysis of 22 interviews with IT experts in Switzerland (Table 5). Their findings show that the structure of public sector work is more complex due to the involvement of various stakeholders, and thus relevant information is scattered, while knowledge exchange takes place in a more rigid way than with private sector clients (Warland & Mayer, 2017, p. 12). Given the lack of sufficient interaction, they emphasise the importance of informal communication if and when possible, especially “the early phase before an

invitation to tender is published” (Warland & Mayer, 2017, p. 117). Similarly, in two longitudinal case studies on the procurement of catering services in the Finnish public sector, Holma et al. find that early discussion is important and postulate the triadic co-development of service specification involving procurers, providers and customers (2020).

Table 5 Specifics of KIBS-client interaction in federal procurement (Warland & Mayer, 2017, p. 120)

Dimension	Private sector clients	Public sector clients
Structure and behavior of client organization	Dyadic concept, client organization considered as one entity	Multi-party system consisting of various stakeholders such as core administration, decentralized administration, semi-public organizations, and private firms
	Client resources are concentrated	Client resources such as information on requirements, legal aspects, and decision-making power are distributed on various stakeholders within public sector
	Willingness to take risks depends on individual client	Clients tend to be more risk-averse since they act under public scrutiny
Interactive learning	Stages of service process are highly intertwined, for example, agile software development	Knowledge exchange is characterized by a more structured (and less flexible) way, elements of a linear innovation process, for example, waterfall approach
	Constant formal and informal knowledge sharing	Informal knowledge exchange particularly important in the early stage
Diversification	Networked reputation crucial to win new clients	Networked but also public reputation crucial to win new clients; public reputation based on references as an important driver for unknown SMEs since federal agencies are expected to be objective New clients primarily within public sector

In exploring the real-life contexts of briefing at the pre-project phase in the process of project commission in the commercial sector and public sector procurements, the underlying assumption is that there could also be common characteristics between them despite their differences. For instance, as a sign of poor interaction, Bruce and Morris in their multi-case study found that clients do not fully disclose proprietary information to external designers before a project is commissioned (Bruce & Morris, 1998a, p. 43). Also, scholars have noted that the challenges in communication and negotiation between design consultants and their clients are often mitigated through varying types of long-term relationships (e.g., Bruce & Docherty, 1993; Bruce & Jevnaker, 1998). Yet, as noted earlier, the real-life conditions of public procurement have not been much explored (Warland & Mayer, 2017), and therefore whether such phenomena occur during briefing in public procurement of the work of service designers is yet to be explored.

2.2 Contending notions of briefing in the literature

As discussed earlier, briefing prior to project commission can be seen as both *cognitive* and *social* activities for design consultants in that they create an initial project plan for their (potential) client, while at the same time listening to their needs and situations. The literature suggests that there are contending notions in terms of the cognitive understanding of “briefing” and “brief” among different authors². Some see *briefing* as a means to create a complete *brief*

² Most extant literature uses the term “briefing” to describe the process of identifying, communicating and negotiating the aim, scope and deliverables for projects and “design brief” for the resulting document (e.g., Blyth & Worthington, 2001; Cooper & Press, 1995; Luck et al., 2001; Paton & Dorst, 2011; Phillips, 2004; Ryd, 2004). Exceptions can be found, however, in which briefing is referred to as “programming” in architecture (Peñá & Parshall, 2012) and a brief is expressed as a “mission statement” in product development (Ulrich & Eppinger, 2011). There can also be geographical differences. Although design consultants in Finland frequently used the terms “briefing” and “design brief” while being interviewed for this dissertation, some of them also interchangeably used Finnish terms, including

before a project commences (e.g., Peña & Parshall, 2012; Phillips, 2004). For these authors, briefing is an analytical activity to define a problem, while design is an activity of synthesis to solve the defined problem (Cherry, 1999; Peña & Parshall, 2012, pp. 14–15; Phillips, 2004, p. 54). Others describe *briefing* as an iterative process, and *brief* as a tool for communication and negotiation throughout a project for a successful project outcome (e.g., Blyth & Worthington, 2001, 2010; Lawson, 2004, p. 13; Ryd, 2004b). These authors maintain that briefing and designing are an “integral part of same process” that is “iterative, reflective and interactive” (Blyth & Worthington, 2010, pp. 20–21). Although the ways in which authors describe briefing sit on a spectrum in between these two extremes, this dichotomy provides useful anchors to assess the current understanding of briefing and its implications for the practice of design consultants.

2.2.1 Linear vs. iterative notions of briefing in practical guidelines

Practical guidelines for briefing can be broadly divided into those that foster linear conceptualisation of briefing and those that promote an iterative notion in their recommendations. In a practical guideline for architectural briefing, O’Reilly exemplifies a linear conceptualisation of briefing, arguing that “[d]efining requirements, and their communication to others, is the root of good briefing” (1987, p. 8). Emphasising the importance of effective briefing, O’Reilly provides a checklist with key attributes of a good brief, such as clarity, priorities, consistency, completeness and realism (1987, p. 10). This approach resonates with later literature on architectural programming that argues for problem definition to be finalised before any design activity takes place (e.g., Cherry, 1999; Duerk, 1993; Peña & Parshall, 2012). In providing a focused guideline for briefing in design management, Phillips provides a similar line of recommendations as O’Reilly, deeming design as a “problem solving discipline” and the design brief as a “contract” (2004, pp. 14–16). Although he acknowledges that sometimes changes could be inevitable in the design process, he recommends keeping them to a minimum “by getting unanimous agreement on the essential content of the design brief prior to starting the design process” (Phillips, 2004, p. 29). Evidently, a sample brief provided in the book exemplifies the linear conceptualisation of briefing with business objectives and design strategies juxtaposed with one another (Table 6).

Table 6 Excerpts from Phillips that show a linear notion of briefing (2004, pp. 147-148)

Business objectives	Design Strategy
Restore visual cohesiveness and clarity to company portfolio of products in order to strengthen brand recognition among consumers.	Develop a unique grid system which will be used consistently with every application across all three tiers.
	Develop a standard typographic system that will be used consistently with every application.
	Develop a color palette that will be used consistently for all products. Explore concepts that will utilize specific color coding for each tier of products.
	Explore concepts that will utilize various forms of imagery to define products (e.g. photography, illustration, and image concepts that

“*sopimus*”, “*toimeksiunto*” and “*tarjous*”. “*Sopimus*” (“agreement” in English) would typically contain information about routine matters, such as payment terms, intellectual property rights, and the responsibilities of the involved parties. “*Toimeksiunto*” (“specification”) would contain any typical project-specific information, such as the aim, scope and phases, while “*tarjous*” (“offer”) would also include the quotation. Congruently, the interviewees also referred to briefing as “project planning” or “offering”. For the sake of simplicity, this dissertation treats these activities as simply “briefing” and the resulting document as a “brief” or “design brief”.

	include people using the product, as well as concepts that feature the product only).
Ensure that ACME Company's products are clearly differentiated, visually, from all competitors.	Audit all major competitors for use of specific visual elements and style.
	Develop design concepts that are uniquely different from all competitors' while still communicating "superior quality."
Enhance equity in the ACME brand by maintaining corporate brand identity standards	Develop design concepts that display the corporate logo prominently and consistently across the entire product line.
	Build on brand heritage by not altering the brand logo in any way, but also allowing the brand to appear more contemporary by utilizing the brand logo in more contemporary physical environments.

In contrast, Barrett and Stanley in their practical guideline for construction briefing emphasise the iterative nature of briefing, arguing that effective briefing should "encourage the development of new goals and leaps of the imagination" (1999, p. 14). In their guideline for architectural briefing, Blyth and Worthington deemed the linear notion of briefing "reductionist" and called for "reverse briefing" that "begin[s] with a form, and through dialogue, testing, evaluating and adjusting, arrive[s] at a statement of requirements" (Blyth & Worthington, 2001, pp. xii–xiii). In so doing, they emphasise that briefing is simultaneously "about problem formulation and problem solving" (Blyth & Worthington, 2001, p. 3). Reinforcing this iterative notion of briefing, Ryd concludes that effective briefing is the function of a continuous interaction and relationship between architects and clients (2004b, p. 248). Similarly, in their primer on new product development, Ulrich and Eppinger acknowledge the iterative nature of product specification in designing and testing until production begins (2011).

2.2.2 Deterministic vs. dynamic design problem

A broader pattern of linear versus iterative conceptualisation emerges when juxtaposing briefing literature with design methodology literature. Uncertainties in problem solving in design have long been appreciated by scholars, as "dilemmas do not present themselves automatically as *problems* capable of resolution or even of sensible contemplation" (Getzels, 1975, p. 12, italics original). A number of scholars subscribe to a view that a design problem is often ill-defined and therefore to be discovered, defined and/or delineated through the capability, expertise and intent of a problem "framer" or a "solver" (e.g., Getzels, 1975, 1982; Paton & Dorst, 2011; Rittel & Webber, 1973; Schön, 1995; Simon, 1984). However, the degree to which scholars believe designers can define (or contain) a complex design problem at an early phase tends to differ according to the ways in which they perceive the nature of the design problem. Therefore, it is plausible that varying recommendations on effective briefing are made based on how the nature of the design problem is understood by an author, whether s/he experiences the design problem as defined early on in projects, and the extent to which s/he believes systematisation could be useful to help "contain" complex design problems³.

Representing a deterministic problem identification approach, Alexander postulated a ground-up method that requires observing the problem context and devising an extensive list of requirements for non-numerical mathematical interpretation (1984). Specific to an Indian village with a population of 600, the extensive list contains 141 interdependent design requirements grouped into twelve categories, which are further grouped into four major themes (1984). Blurring "the boundary between well-structured and ill-structured problem solving",

³ It would be important to note, however, that practical guidelines rarely cite design methodology literature. One exception is Ulrich and Eppinger (2011), who briefly mention Alexander (1964) and Simon (1996) for their pioneering work in systems design.

Simon argued that the only difference between them is the amount of data to be processed (Simon, 1984, p. 165)⁴. In other words, he maintained that designers can *tame* ill-structured problems into well-structured ones, and therefore there is no need to develop a specific methodology to deal with ill-structured problems⁵. Broadly speaking, these scholars seem to hold a view that design problems can generally be defined earlier in the process, and systematisation (or the use of computer software) can help reduce uncertainties. This view resonates with the linear, analytical and static perceptions of briefing (e.g., Cherry, 1999; Peña & Parshall, 2012; Phillips, 2004).

Such deterministic views on the process of problem defining in design have been challenged by scholars that introduced the *wicked* and dynamic nature of design problems (e.g., Rittel & Webber, 1973; Schön, 1995) and that studied design practitioners in protocol studies (e.g., Dorst, 2006; Goldschmidt, 1997; Schön, 1988). Rittel and Webber argued that, unlike a *tame* problem, a *wicked problem* does not have a definitive formulation, and therefore solving it involves exploring its context and requires designers to have the ability to discern the chasm between the current state and the desired one (1973)⁶. In a theoretical discussion on the systematic design method, Archer visualised an iterative design process, whereby the boundaries of phases are blurred and the outcome of later phases can lead back to earlier phases (Figure 2): “these phases are overlapping and often confused, with frequent returns to early phases when difficulties are encountered and obscurities found” (1984, p. 64).

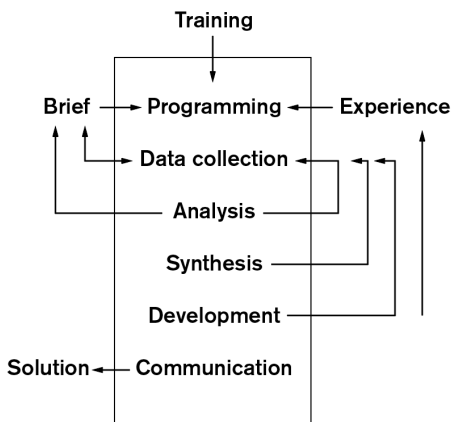


Figure 2 Archer's framework for design process (1984, p. 64)

⁴ It is worth noting that the scholars that fostered linear problem solving in design predominantly assumed that the use of computer software will be a daily practice of designers for managing large amounts of data (e.g., Alexander, 1984; Jones, 1984; Simon, 1984).

⁵ Simon's terminology of “well-structured” and “ill-structured” problems does not directly correspond with Rittel and Webber's terminology of “tame” and “wicked” problems. Simon argues that any ill-structured problem can be well-structured given enough resources, and once done, it can be solved. For a more extensive discussion, see Dorst (2006).

⁶ At a superficial level, this conceptualisation of design problem by Rittel and Webber seems incompatible with that of Getzels: while the definition of wicked problem resembles the created problem situation of Getzels, Getzels himself concludes that design concerns presented problem situations. This disagreement may arise from the fact that Getzels and Csikszentmihalyi (1967) analysed commercial use of industrial arts with student data, while Rittel and Webber contextualised their inquiry in social professions, such as urban planners and social workers.

In a protocol study with seven architects, Schön found that the conditions of complex design problems are never fully predictable early in the process and hence argued that “problem solving triggers problem setting” (Schön, 1988, p. 182). He fostered the notion of “reflective practice”, the ability of designers to improve their actions while engaging in continuous learning (Schön, 1995). Analysing the think-aloud monologue of a mechanical engineer in a design exercise for a bicycle rack, Goldschmidt considered the nature of the design process to be “indeterministic”, proposing an approach to describe the problem space that drew attention to the complexities designers face (1997). According to Goldschmidt, design problems are ill-structured, ill-defined or non-routine, which makes the final outcome ever unpredictable (1997, pp. 441–442). Dorst and Cross reaffirmed Schön’s concept of iterative design process through a protocol study (2001). By observing industrial designers designing a trash bin for a train car, they conceptualised the design process to be a gradual co-evolution of problem and solution spaces (Dorst & Cross, 2001). Arguing that Simon overlooked the role of subjectivity and memory in design, Dorst later called for a more situated and discursive understanding of design activity to resolve *paradoxes*⁷ with multiple competing and opposing views and statements (2006, p. 17). These reflective, situated and discursive views on design problems are similar to that of authors who see briefing as iterative and interactive (e.g., Blyth & Worthington, 2001; Lawson, 2004, p. 13; Ryd, 2004b).

The shift from the deterministic and static notion of design problem towards a wicked and dynamic one represents a transition in how the nature of the design process is conceptualised. With the new understanding, not only are different facets of the design problem interdependent (hence complex), but also what were earlier perceived as separate phases in the design process are now considered to occur simultaneously, informing one another in co-evolution (hence dynamic). This implies that briefing, as a key part of the design process, might also be conceptualised as being continuous, iterative and interactive. As will be discussed later, the studies of this dissertation explore whether design consultants pursue iterative briefing and whether the real-life context of design consulting enables or hinders such iterative briefing.

2.3 Contexts of briefing at the pre-project phase

As discussed thus far, “design ‘problems’ can only be regarded as a version of ill-defined problems” (Cross, 2007, p. 99, single quotation marks original). Problem and solution co-evolve (Dorst & Cross, 2001) through the reflective practice of designers (Schön, 1995). This dynamic, evolutionary and reflective nature of design requires continuous briefing practices whereby a design brief functions as a tool for iteration (e.g., Blyth & Worthington, 2001; Lawson, 2004, p. 13; Lawson & Dorst, 2009, p. 58; Luckman, 1984; Ryd, 2004b). However, as discussed earlier, the context of briefing at the pre-project phase in design consulting may not readily cater for such briefing practices because it can be challenging to alter a project plan in an offer once accepted by the client (Bruce & Morris, 1998a, p. 56). Therefore, design consultants are required to predict the full scope of projects upfront when securing commissions, despite their limited insights into the processes, challenges and operations of clients’ businesses at the pre-project phase (e.g., Hakatie & Rynänen, 2007, pp. 42-44).

This paradox between the needs for iterative briefing and the contractual nature of design consultants’ engagement with clients and resulting rigidity forms the context of briefing prior

⁷ In his 2006 writing, Dorst refused to use the term “design problem” as it implies that there is a static problem to be identified, and instead used the word *paradox* (2006, p. 14).

to project commission. In it, briefing in design consulting emerges as a *social and collaborative* process to form and evolve a shared understanding between the experts involved: clients, design consultants and stakeholders alike. Kleinsmann and Valkenburg listed factors that may impact the creation of a shared understanding between collaborators in the design process (2008). These include, among other things: the knowledge about the task to be performed, the views on the process to follow, the views on the knowledge to be shared, the prospect on the task of the other actors and the ability to make use of different communication methods (Kleinsmann & Valkenburg, 2008, p. 380). This holds true to pre-project briefing in design consulting, as the ways in which the aim and scope of a project are articulated and negotiated during briefing prior to project commission hinge on the client's proficiency in using design (e.g., Micheli, 2014; Ramlau & Melander, 2004; von Stamm, 1998), as well as the capability and expertise of designers (e.g., Cross, 2004; Lawson & Dorst, 2009; Paton & Dorst, 2011). The following sections discuss the roles clients, design consultants and their relationship play in briefing in design consulting, and their implications for briefing prior to project commission.

2.3.1 Client's proficiency in using design

The proficiency of the client and the challenges it may bring about for briefing prior to project commission and the resulting project pose daily concerns for design consultants. Clients play an important role for a successful project engagement with external designers (Pilditch, 1990, p. 14). Their tasks in working with external designers include, among other things: selecting and commissioning projects from appropriate design consultancies, preparing requirements for the outcome (i.e. initial brief), evaluation of proposals and design work, and project management (Bruce & Morris, 1998a, p. 41). As discussed earlier, the majority of these activities are directly and indirectly relevant to briefing at the pre-project phase in design consulting, as design consultants are required to balance the contractual nature of their work and the uncertainties later during the project period.

Clients' capabilities for working with external designers present a major concern for briefing prior to project commission. Studies and practical guidelines point out that lack of clarity in an initial client brief (or request for a proposal) is one of the major challenges for effective design work (e.g., Boyle, 2003; Phillips, 2004; Ravasi & Stigliani, 2011). As discussed earlier, Tzortzopoulos and Cooper in their study on building clients' activity in the early design process point out that clients may not always understand their role and sometimes lack sufficient resources and required expertise in discussing with and managing external designers (2007). Further, design consultants are sometimes in situations in which their counterparts in a potential client's organisation do not have sufficient decision-making power for using design in their organisations (Ravasi & Stigliani, 2011, pp. 236–237). The client organisation may have a complicated decision-making structure (Tzortzopoulos et al., 2006, pp. 678–679) that may obscure the initial briefing process.

Briefing at the pre-project phase can also be influenced by the client's experience and ambition for design engagements. Von Stamm identified the factors that can influence the perception of design from a group discussion with members of small and medium-sized enterprises (SMEs): the organisation's competition in the sector, the managing director's attitude towards design, the frequency of design engagement in the organisation, the size of the company and its financial resources (von Stamm, 1998, pp. 42–43). For some clients, cost itself could already be a barrier when hiring external designers (e.g., von Stamm, 1998). When working with SMEs, designers may experience the "design illiteracy" of clients who are concerned about the price,

risk averse and resistant to change (Ravasi & Stigliani, 2011, pp. 233–237). What is more, evolving and diversifying expertise in varying design consulting firms may pose challenges for inexperienced clients to make appropriate decisions as to their specific needs (Jevnaker, 1998c, p. 1). Through an analysis of renowned firms for product design, Ravasi and Lojaco conclude that the contributions designers make may vary depending on the perception of design in client organisations (2005). Congruently, Eneberg and Holm in their interview study with design consultants and clients found that the strategic capabilities of design consultants are often not appreciated by clients due to the intangible nature of their work (2015).

The design capability of firms has long been of interest to scholars and professional organisations. Fairhead devised a linear and stepwise framework for different levels of design understanding in firms and the relevant expertise required for each level (1988, in von Stamm, 1989). Here, design is seen as styling, a tool to make a product better, as an interface between the firm and its audience or a process that integrates various functions in the organisation (Figure 3). Similarly, the Danish Design Council devised the “Design Ladder”, another stepwise framework to identify the degree of proficiency of clients in using design: no use of design, design as styling, design as process and design as strategy (Ramlau & Melander, 2004, p. 49). “Design as styling” equates design with decoration or visual contribution at the end of a product development process. “Design as process” means that designers start making meaningful contributions early on in the development process. “Design as strategy” requires design to become a central concern for an organisation’s operation and innovation efforts. Based on their survey data, Ramlau and Melander argue that “the higher a company is placed on the Design Ladder, the better its gross performance” (2004, p. 50). Such stepwise frameworks seem to have been widely adopted in design practice and research (Backes & Wolff, 2016) in promoting and measuring the impacts design can bring to organisations (Björklund et al., 2018), as well as in further developing more specific sectors, such as in the case of non-profit organisations (Nusem et al., 2017).

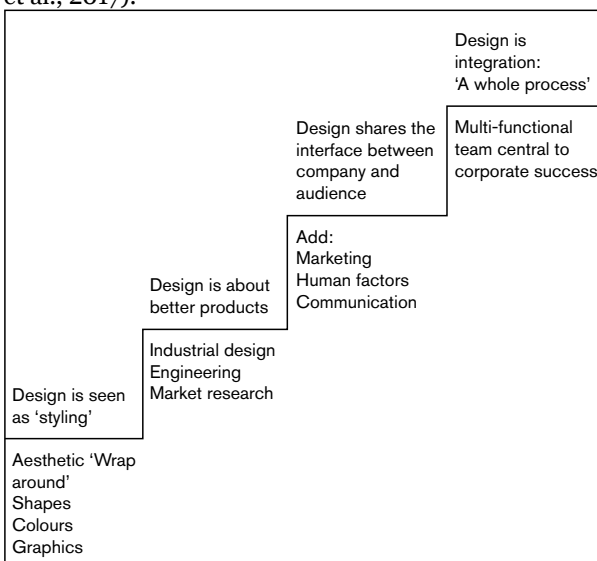


Figure 3 Framework by Fairhead (1988, in von Stamm, 1998)

However, these stepwise frameworks are not without their shortcomings. First, there could be multiple layers of design proficiency that are simultaneously at work, which makes it

difficult to capture a firm's design proficiency through a one-dimensional conceptualisation. For instance, in exploring the varying roles industrial designers are expected to play in a business-to-business firm, Valencia, Person and Snelders find that the perception of "capacities and contributions of design" follows the varied interests that reside in a company (2013, p. 380). Similarly, Björklund et al. put forward what they term "deep and wide design capabilities" that respectively represent "human and question-centered abductive exploration" and "understanding and application of design approaches and the organizational scaffolds to support design efforts" (2020, pp. 5–7). Based on interviews with designers, managers and business leaders in nine countries, they find that these two capabilities evolve not in a stepwise manner but hand in hand in organisations. Second, as an organisation grows, its workforce inevitably becomes more diverse (e.g., Bassett-Jones, 2005), which makes it challenging to measure an organisation's proficiency in using design through a broad-brush yardstick. In other words, some employees can be highly proficient, while others are incapable of and/or indifferent to using design. Third, the association between the degree of proficiency and the gross performance put forward by Ramlau and Melander (2004, p. 50) may be noncausal one (for detailed investigations in other fields, such as management or epidemiology, see e.g., Chiolero et al., 2014; York & Miree, 2004). Finally, such frameworks presume that the value of design resides in its business impact. However, there have been discussions that challenge this notion. For example, a designer's work and the performance of the design outcome are seldom assessed solely in terms of financial measures, but also in terms of indirect impacts, such as "market visibility" and "professional acknowledgements" (Person et al., 2016, p. 41). Similarly, in his theoretical exploration on the value of design through three short case discussions, Holmlid argues that "design value precedes business value" (2010).

More recently, scholars have developed more nuanced models and conceptualisations. For instance, by combining different capability models in design management literature, Best et al. developed a two-axis framework that encompasses not only varying levels of design management capabilities but also five key factors that are indicative of successful or unsuccessful design for each level (2010): awareness (of benefits), design management process, planning, design management expertise and design resources (Table 7)⁸. Drawing insights from the software process maturity model (e.g., Humphrey, 1988; Paulk, 2009), the Design Management Institute (DMI) put forward the "Design Maturity Matrix" (*Dmi Toolkit*, 2015). Similar to the matrix postulated by Best et al., the DMI's matrix boasts five steps – Initial, Repeatable, Defined, Managed and Optimised – and three application areas – Development & Delivery, Systems & Processes, and Position & Approach. Although these matrices still hold the stepwise understanding of previous frameworks, they show more capability- and organisation-oriented underpinnings. Further, through a survey of a large number of Chinese firms, Heskette and Liu developed a spiderweb-shaped evaluation model for design management with six criteria (2012). Building upon Heskette and Liu (2012), Storvang, Jensen and Christensen developed a "design capacity model" for firms' design management capacity in a Danish context that consists of: design awareness, the importance of design in internal processes, users' involvement, innovation drivers and design capabilities (2015).

⁸ However, it is worth noting that Best et al. do not clearly mention the literature they consulted (2010).

Table 7 Design Management Staircase Maturity Grid devised by Best et al. (2010)

Factors	Design Management Capability Levels			
	Level 1: No DM	Level 2: DM as project	Level 3: DM as Function	Level 4: DM as Culture
Awareness (of benefits)	Not aware of benefits and potential value of design (unconscious use or no use)	Some functional specialists are aware	Most are aware that it is important to remain competitive	All are aware that it is fundamentally important to gain a leadership position
DM process	No idea where design fits within current processes	Performed inconsistently and late in development process; not repeatable across projects	Performed consistently and early; formal DM process drives performance	Ongoing activity; business is engaged in continuously improving DM process
Planning	Company/marketing plans do not mention the use of design	Limited plans and objectives exist at the individual project level	Plans and objectives exist that set direction and integrate design in various activities	Design is part of strategic plans; design planning is a dynamic process that drives the business
DM expertise	Little or no skills to handle design activity; no DM tools applied	Some skills; basic DM tools applied inconsistently; lots of room for improvement	Standard DM tools applied consistently; some room for improvement	Appropriate expertise; use of advanced DM tools; appropriate metrics used
Design resources	The business has not committed resources to design activity (may not appreciate the potential return of design investment)	Limited resources are allocated for individual projects; one-off design investments with no review of potential returns	Sufficient resources are allocated on the basis of potential return, but with limited procedures in place to assist in decision-making	Substantial resources are allocated, with financial procedures in place to assist in appraising investments, assessing risk, and tracking returns

Synthesising extant literature on design capability, Malmberg conceptualised that design capability consists of “*knowledge about design and ability to design*”, of which the latter can be further divided into “design resources” and “organizational structures” that enable design practice (2017, pp. 205–222, emphasis original). Drawing upon the concept of absorptive capacity in organisational research (e.g., Lane et al., 2006), Malmberg postulated that organisations may develop design capability through three phases of knowledge absorption and capacity development: acquisition, assimilation and exploitation (2017, pp. 205–222).

Such nuanced and more reflective inquiries into clients’ proficiency in using design shows that the topic is multifaceted and thus the research on clients’ proficiency and its impact on briefing prior to project commission may benefit from qualitative approaches to untangle the complexities involved. The studies of this dissertation thus inductively inquire into how the proficiency of client organisations in using design is experienced by both design consultants (Study 1, 2 & 3) and their clients (Study 3), as they can have a significant impact on briefing at the pre-project phase and the setting for the subsequent project engagements.

2.3.2 Design consultants’ expertise in briefing at the pre-project phase

As discussed earlier, scholars emphasise that designers’ expertise plays a significant role in briefing (e.g., Cross, 2007; Lawson, 2004; Lawson & Dorst, 2009). Designers transform

information and knowledge into forms, structures and systems through briefing and designing (Lawson, 2004, p. 59), simultaneously deconstructing and reconstructing the initial brief (Cross, 2007, pp. 99–103). Therefore, the designer’s primary role may lie in translating from a verbal (e.g., written brief) to a tangible form (e.g., design artefact) while negotiating the translation (Tomes et al., 1998).

In addition to the cognitive activity to make creative leaps and synthesise relevant information into forms, designers also perform other activities that influence the nature of their project engagement with clients. According to Dorst, designers “don’t just design” but also carry out a series of crucial “meta-activities” that involve creating the setting they work in, positioning their role in projects, and finding appropriate collaborators (Dorst, 2008, p. 8). As one such meta-activity, briefing prior to project commission may have a lasting impact over a project, as it may dictate the depth and breadth of involvement of design consultants.

That said, discussions about, and empirical studies on, the proficiency of designers in briefing have been scant in the literature. One of the few exceptions includes Paton and Dorst (2011), who in their interview study with experienced visual design consultants discern the four roles design consultants play in briefing and framing with clients: Technician, Facilitator, Expert/Artist and Collaborator. *Technician* gets involved in a development project later in the process and contributes only to the delivery. *Facilitator* coordinates and integrates broad capabilities in delivering what clients ask for. *Expert* and *Collaborator* become involved in framing the problem and solution spaces and are provided with ample room for iteration. Earlier, Bruce and Morris juxtaposed the depth of involvement of design consultants based on their proactiveness in engaging with clients (1998a, p. 53). With “passive” expertise, a designer could be seen as a mere contributor who delivers what the clients ask for. In contrast, designers can practice “active” expertise when they are considered as equal partners who can influence design decisions with clients (Table 8).

Table 8 Briefing modes and ability to reframe during briefing (adapted from Paton & Dorst, 2011)

Mode	Point of entry to project	Involvement in problem space formulation	Involvement in solution space formulation	Amount of iteration	Passive vs. active (as in Bruce & Morris, 1998a: 53)
Technician	End of planning	No	No	Low	Passive
Facilitator	Near end of planning	No	Partial	Low	Passive
Expert/Artist	Mid-planning	Partial	Yes	Med	Active
Collaborator	Beginning of planning	Yes	Yes	High	Active

In the aforementioned study, Paton and Dorst found that abstraction and language-cocreation are major strategies for designers to deconstruct clients’ initial preconceptions about the outcome for successful reframing (2011, pp. 580–583). Fostering a “frame innovation” approach, Dorst argues that higher levels of design expertise are necessary to untangle paradoxes in contemporary design problems that are open, complex, dynamic and networked by nature (2015, pp. 9–17, 55–59). These roles represent skills and expertise beyond the cognitive ability to “solve” discrete design problems, which is essential for design consultants when initiating projects with clients.

What seems to be apparent in reviewing the literature above is that the discussions around proficiency for briefing are dichotomised: one concerns the client's proficiency in using design, another the design consultants' ability to identify and/or uncover relevant information and frame design problems. Again, Malmberg's synthesis on design capability and absorptive capacity can provide a useful approach to resolve this dichotomy (2017, P. 205-222). If clients go through the three steps of acquisition, assimilation and exploitation in terms of proficiency in using design, so can design consultants for the specific information and knowledge about the context they are commissioned to work within (e.g., the technological and legal trend in a specific field, etc.). This implies that the sources of the challenges design consultants face in briefing before a project commission and their practical responses should be dynamically understood in terms of their situatedness, and thus could perhaps be best explored inductively from the perspectives of the practitioners themselves.

2.3.3 Client-designer relationship and briefing at the pre-project phase

The client-designer relationship can play a significant role in briefing prior to project commission and also with respect to the project outcome. Design consultants may not be as familiar with the client's company practices as its own employees, which may slow down progress during both briefing and projects (Bruce & Morris, 1998a, pp. 42–51). Bruce and Morris raised concerns about the integration of design consultants into the client's functions in projects, as the "tension between fear of giving away commercially sensitive information and the need to build up an open and trusting relationship is particularly acute" (1998a, p. 43). Even after many projects, the expertise of design consultants may not transfer to client firms, as "design knowledge resides in human experts" (Jevnaker, 1998c, p. 2).

Mingling an in-house design team with specialised external expertise was seen as a way to mitigate some of these challenges (Bruce & Morris, 1994, 1998b; von Stamm, 1998). Bruce and Docherty in their case study on design consultant-client relationships found that companies have formed "arm's-length" and family-like relationships with designated design consultants for mutual benefits (Bruce & Docherty, 1993). As the relationship grows, design consultants gain deeper insights into the client's organisation, challenges, and current and future needs and become able to "speak" the client's language and provide more successful outcomes (1993). Jevnaker described such a relationship as a "learning alliance", in which design consultants can contribute to client organisations as an "outside insider" (1998a).

However, establishing such relationships requires many successful engagements, as its prerequisites are a high degree of transparency, respect towards each other, openness and reliability (e.g., Bruce & Docherty, 1993, p. 415; O'Connor, 2000, p. 27). In other words, from design consultants' perspective, they need to successfully carry out pre-project briefing many times over with the same client before being able to establish a relationship. To this end, the studies in this dissertation set out to uncover the challenges in establishing client-designer relationships from design consultants' perspectives and how they mitigate the challenges by tailoring their communication with clients and adapting their briefing practices accordingly (Study 1 & 2). Specifically, they enquire into the specific types of information sought by expert industrial design consultants and the information that needs to be emphasised in the brief (offer) document when briefing with inexperienced or experienced clients (Study 2). Further, the studies explore whether and how public sector organisations tailor procurement processes to take advantage of pursuing long-term relationships with design consultants and more iterative briefing when initiating projects (Study 3).

2.4 Chapter summary

Briefing at the pre-project phase forms an important topic for design research and practice – the process of communication and negotiation about the aim, scope, deliverables and budget for a prospective project may have an impact not only on the work of design consultants in projects, but also the success of the outcome for clients. It involves a wide range of expertise and social skills from both design consultants and clients to establish a shared understanding, values and goals for projects (Paton & Dorst, 2001, p. 577).

However, briefing at the pre-project phase in design consulting has not been extensively addressed in the extant literature. Focused studies and practical guidelines about briefing overall can be mainly found in architecture and its adjacent fields. However, with the exception of a few studies exploring the topic from the client side (Jensen, 2011; Tzortzopoulos et al., 2006), studies on briefing prior to project commission have been rare in these fields. Design and design management literature also touch upon briefing and design consulting. However, with the exception of Paton and Dorst (2011), who explored the different roles visual design consultants take for successful (re)framing with clients, there have not been focused studies on briefing in the context of design consulting until recently. As a result, despite the widespread interest in improving briefing in many subfields of design, briefing prior to project commission and its real-life context are poorly understood in the literature. Also, there is a general lack of empirically grounded practical guidelines focused on important subfields of design outside architecture and adjacent fields. Further, in knowledge-intensive business services (KIBS) and Creative KIBS, a broad range of expertise is treated as one homogeneous group (e.g., Abecassis-Moedas et al. 2012) and thus there has been little effort to explore briefing for discrete fields. To this end, the studies of this dissertation were designed to qualitatively and inductively enquire into the real-life practices of briefing at the pre-project phase in industrial design consulting and public procurement of service design.

Both industrial design and service design are important contemporary fields of design, yet focused academic inquiries on briefing in these fields have been scant. Therefore, inductive understanding of professional briefing practices in these two fields can provide a basic understanding of the real-life context, which future studies and practical guidelines can build upon. The “paired comparison” (Tarrow, 2010) between the contexts of industrial design consulting (mostly for commercial sector clients) and service design consulting for the public sector could provide a parsimonious description of what briefing entails at the pre-project phase in design consulting. Industrial design consulting is a mature profession in Finland, and thus it is expected that researchers would be able to observe more or less settled and well-reasoned professional practices where the clientele mostly consists of companies from the commercial sector. Service design consulting is an emerging practice globally, and the public uptake in Finland is on the rise (Boman-Björkell et al., 2016, p. 6). In comparing these two widely different contexts, the aim is to discern the commonalities that constitute the realities of industrial design consulting and public procurement of service design that can also predict and explain briefing prior to project commission in other consulting fields, as well as the differences that make each field distinct from one another.

In pursuing such studies, I distinguish key areas for research on briefing prior to project commission through this dissertation. First, a review of extant literature on briefing reveals contending notions of design brief: one that is more static and definitive (Cherry, 1999; Peña & Parshall, 2012, pp. 14–15; Phillips, 2004, p. 54) and another that is more iterative and evolutionary (e.g., Peña & Parshall, 2012; Phillips, 2004). This tension traces back to two different

conceptualisations of design problems: broadly speaking, one that is more systematic and deterministic (e.g., Jones, 1984; Simon, 1984) versus another that is dynamic and complex (e.g., Rittel & Webber, 1973; Schön, 1995). Of late, studies on the topic seem to form a consensus that design problems are indeterministic and complex (e.g., Dorst & Cross, 2001; Goldschmidt, 1997), which suggests that briefing, as a key part of the design process, might also be conceptualised as being continuous, iterative and interactive. Through three studies that focus on real-life briefing practices before project commission, this dissertation aims to unveil what briefing prior to project commission entails (**RQ 1**⁹), and more specifically whether and how design consultants pursue iterative briefing and whether the real-life context of design consulting enables or hinders such iterative briefing.

Second, the social and collaborative nature of design consultants' engagement with clients and the contractual nature of briefing prior to project commission and the resulting rigidity in projects form an important context for the research questions of this dissertation. Clients play an important role in successful project engagement with design consultants (Pilditch, 1990, p. 14), as they select whom to work with, prepare requirements for project outcomes and evaluate project proposals (Bruce & Morris, 1998a, p. 41). Briefing at the pre-project phase can also be influenced by the client's experience and ambition for project engagements, and thus the client's proficiency in using design has been a research interest in design management (Björklund, 2013; Griffin, 1997; Ramlau & Melander, 2004). Initially conceptualised through linear and stepwise models (e.g., Fairhead, 1988 in von Stamm, 1998; Ramlau & Melander, 2004), clients' proficiency in using design has become increasingly nuanced through the use of multidimensional conceptualisation (e.g., Best et al., 2010; dmi toolkit, 2015; Heskett & Liu, 2012; Storvang et al., 2015) and through novel theoretical underpinnings, such as absorptive capacity (Malmberg, 2017). Therefore, the studies in this dissertation set out to understand how the proficiency of clients is experienced by design consultants and its implications for a designer's work (**RQ 2**¹⁰). Further, it enquires into whether and how design consultants take into account the varying degrees of experience of clients, clients' ambitions in hiring external designers, and resources and capabilities to support such engagements.

Finally, with few exceptions (e.g., Paton & Dorst, 2011) design consultants' expertise and strategies for briefing at the pre-project phase have been comparatively less explored than clients' proficiency in using design. This dissertation explores the practical responses of practitioners in dealing with the challenges in briefing prior to project commission in both industrial design consulting for commercial clients and public procurement of service design (**RQ 3**¹¹). In doing so, this dissertation aims to contribute to the design and design management field with an underlying aim to demystify the design consulting practice in its professional context and the forthright intention to help improve broader uptake of design by providing future practitioners with more empirically grounded guidelines.

⁹ **RQ 1.** What does briefing entail before project commission in design consulting?

¹⁰ **RQ 2.** What role does clients' proficiency in using design play for briefing prior to project commission?

¹¹ **RQ 3.** What are the potential challenges for briefing at the pre-project phase in design consulting?

3. Methodology

This chapter describes the research design of this dissertation and the constituting studies. It first provides the rationale for the methodological commonalities across the three studies in this dissertation: (1) qualitatively and inductively inquiring into real-life briefing practices; (2) exploring the phenomenon through the experiences of design consultants (and public servants); and (3) inviting the interviewees (experts) into the analysis process for reflexivity. It then discusses how the studies together answer the overarching research question of this dissertation: what briefing entails in design consulting before a project is commissioned. It then provides a summary of the research design of each of the three studies and discusses potential pitfalls of the methods used and how these are addressed for each study.

The first commonality is that all three studies of this dissertation are qualitative and inductive by design. As discussed in Chapter 2, there is a lack of general understanding in the literature about what briefing before project commission entails in design consulting in important contemporary design fields, such as industrial design and service design. In exploring an uncharted area, I report on studies devised to inductively form an understanding about briefing in design consulting to provide an empirical ground for future studies and practical guidelines to build upon.

At least since the 1960s, architectural practice in the UK has largely been influenced by the Royal Institute of British Architects, which has been responsible for the publications that have been fostering standards of working methods for the building industry and the professionals involved (e.g., Cox & Hamilton, 1995; Hughes, 2003; Lupton, 2000; RIBA Plan of Work, 2020). Although these guidelines have been updated over time, the underlying principles have stayed intact over the past decades (Hughes, 2003). As discussed earlier, this provided a firm ground for practical guidelines (Barrett & Stanley, 1999; e.g., Blyth & Worthington, 2001; Peña & Parshall, 2012) and academic inquiries with more specific topics to build upon (e.g., Bendixen & Koch, 2007; Jensen, 2011; Kamara, 2012; Ryd, 2004b; Sterry & Sutrisna, 2007). In contrast, despite the significance for the industry, professional organisations for other design fields have neither been legally protected nor had a strong standing, which has been especially true in Finland (e.g., Korvenmaa, 2001). For instance, the Finnish Design Business Association (FDBA) was formed around the time of Study 1, and consisted of design consultancies largely in the fields of visual design and industrial design consulting. This organisation no longer exists, and the only current comparable organisation in Finland is Ornamo, a professional organisation for designers in Finland across a wide range of fields, such as contemporary art and craft, furniture design, textiles, fashion, package design, interior design, industrial design, digital design and service design (Ornamo, n.d.). This relatively weak formation of the professional body might have contributed to the lack of normalised and widely accepted guidelines that could provide designers and managers with standardised briefing practices for industrial design and service design, as well as research studies to build upon. In

building a basic “descriptions and interpretations” (Yeo et al., 2014, p. 178) about the practices and professional contexts of briefing prior to project commission in design consulting, the qualitative and inductive studies in this dissertation explore the phenomenon for “its richness and potential for discovery” (Gioia et al., 2013, p. 15).

The second methodological commonality across the three studies is that they gain access to briefing prior to project commission through the experiences of design consultants (and their potential clients in the case of Study 3). Gaining direct access to the moments of briefing in design consulting can be challenging for researchers, which is also evident in the methodological choices utilised in the extant literature. As discussed earlier, a review of studies related to briefing reveals that most studies are conducted in the field of architectural design and its adjacent fields (Table 9). While many studies rely on interviews as their sole data collection method, the number of interviews is often relatively small or sometimes unspecified. A number of studies employed protocol settings or workshops with fictitious project situations to test novel briefing approaches, sometimes followed by interviews or surveys to measure the effectiveness and/or collect feedback (e.g., Bogers et al., 2008; Thyssen et al., 2010; Yu et al., 2006). Others reported on explorative methods that are developed to bring about improved user involvement and empathy in the design process (e.g., Dankl, 2013; Luck et al., 2001; McGinley & Dong, 2011).

Table 9 Research scope of and methods used in published articles related to briefing practices in design

Authors (year)	Scope	Method	Data	Field	Journal
Luck, Haenlein, & Bright (2001)	Presenting a novel briefing approach to design an “accessible” building through the representation of end user group views	Literature review, interviews	Interviews (n=unspecified, likely 6 according to Luck, 2003)	Architecture & construction	Design Studies
Luck (2003)	User representation in early stages of design through the analysis of language use in architect–user conversations	Grounded theory (content analysis)	Interviews (n=6)	Architecture	Design Studies
Ryd (2004)	The potential of design brief documents as information carriers during the design and production phases in construction through the analysis of the interaction between the parties involved	Participatory observation, Case study	Official meeting minutes, field notes	Architecture & construction	Design Studies
Tzortzopoulos, Cooper, Chan, & Kagioglou (2006)	Understanding the clients' activities at the front-end of the design process by analysing the design process for primary healthcare facilities in the UK	Case study	Interviews (n=22), informal discussions, documentations	Architecture & construction	Design Studies
Yu, Shen, Kelly, & Lin (2006)	Proposing value management as a formal method for assessing	Protocol study (fictitious)	Observations in the workshop and a	Architecture & construction	Architectural Engineering &

	clients' needs and requirements in strategic briefing	strategic briefing workshop)	follow-up feedback survey		Design Management
Bendixen & Koch (2007)	Exploring the role of visual representations in briefing and design processes	Grounded theory and document analysis	Field notes in three building projects, interviews (n=35)	Building engineering	Building Research & Information
Grilo, Melhado, Silva, Edwards, & Hardcastle (2007)	Exploring technological, managerial, organisational and cultural barriers in hiring foreign design offices for complex building projects in developing countries	Case study	Interviews (n=7)	Architecture & construction	Architectural Engineering & Design Management
Hey, Joyce, & Beckman (2007)	Identifying core framing activities through which design frames are socially negotiated and shared in student design teams	Mixed method	Archival material (written and visual design proposals), free-form survey, observations during the course, interviews with teams, field notes, etc.	Industrial design & product development	Journal of Design Research
Ryd & Fristedt (2007)	Describing the process of client's requirements translated into a strategic brief, then into general briefs	Literature review, case study	Stakeholder workshop, field notes (meetings), interviews (n=unspecified), project documentation	Architecture & construction	Construction
Sterry & Sutrisna (2007)	Current practice of secondary stakeholders by analysing three building projects for performing arts in the UK	Case study (cross-case analysis)	Archival data and interviews (n=unspecified)	Architecture & construction	Architectural Engineering & Design Management
Tzortzopoulos & Cooper (2007)	The contractor's role in managing the design process in construction and facilities management	Case study (content analysis)	Interviews (n=7), field notes (n=6), documentations around procurements	Architecture, construction & facility management	Architectural Engineering & Design Management
Bogers, Meel, & Voordt, (2008)	Types of information architects find relevant in briefing for their work and how the information should be presented	Literature review, interviews, workshop	Interviews (n=18)	Architecture	Facilities

Thyssen, Emmitt, Bonke, & Kirk-Christoffersen (2010)	A proposal of a novel workshop model based on value management literature and lean thinking	N/A	N/A	Architecture & construction	Architectural Engineering & Design Management
Jensen (2011)	Briefing processes and the methods for user involvement in building projects through a case study of a major building project for the Danish Broadcasting Corporation	Single case study	Unspecified (loosely defined as an action research, as the author was an active participant in the building project as deputy project director)	Architecture	Architectural Engineering & Design Management
Jensen (2012)	Typology of mechanisms for knowledge transfer from facilities management to building projects	Case study (n=36 from 5 countries)	Unspecified (loosely defined as participatory observation according to Jensen, 2009)	Facility management	Architectural Engineering & Design Management
McGinley & Dong (2011)	Exploring how rich user data can be recorded and conveyed to designers	N/A (A report from explorative project towards developing an online resource for designers)	Interviews (n=unknown)	Environmental design (crime prevention)	The Design Journal
Paton & Dorst (2011)	Frame communication and adoption strategies of professional designers	Grounded theory	Interviews (n=15)	Graphic design	Design Studies
Kamara (2012)	Identifying enablers and inhibitors for lifecycle integration between the client and project organisations in a Private Finance Initiative project	Case study (single)	Interviews (n=7), informal conversations	Building management	Architectural Engineering & Design Management
Dankl (2013)	Proposing an alternative method for creating an “experienced-based” design brief based on ethnographic data on elderly people in Vienna	N/A (An explorative study to propose a new briefing method)	Loosely described as ethnographic observation (n=15)	Inclusive design & applied art	The Design Journal
Reifi & Emmitt (2013)	Exploring the interpretation and application of lean design management in architecture,	Survey	Survey responses (n=125)	Architecture, engineering & construction	Architectural Engineering & Design

	engineering and construction				Management
McDonnell & Lloyd (2014)	Examining how architects and clients create, share and resolve expectations about the ways in which a building will be experienced	Phenomenological and symbolic analysis framework by Medway (2000)	Video recording of meetings (n=2), interview (n=1), audio transcript of guided tour (n=1)	Architecture	Design Studies
Haug (2015)	Defining patterns for client requirements for design and associated challenges in communication	Step-wise qualitative analysis (specific analysis method unspecified)	Interviews (n=10)	Industrial design	Design Studies

The number of studies that directly observe the moment(s) of real-life briefing is small, perhaps due to the challenges faced in gaining access to such situations. A number of challenges arise in making methodological choices in investigating briefing practices in design consulting at the pre-project phase due to its idiosyncratic and confidential nature. Each project is unique in design (Rittel & Webber, 1973, pp. 164–165), making it difficult to compare different cases or to collect data in large numbers for quantitative analysis. Also, it is practically challenging to directly observe specific moments of briefing *in situ*, as only few discussions between design consultants and (potential) clients lead to actual project commissions. Further, early conversations for projects between consultants and (potential) clients involve exchanges of confidential information, such as negotiation of the scope and corresponding fees of a project. Accordingly, gaining access to join these discussions as external parties may not always be feasible. An exception can be found in Jensen (2011), who made in-depth, real-life observations of the briefing process in a large building project. This was made possible because Jensen worked as a deputy project director in the client organisation “with responsibility for briefing and design coordination” before joining academia (2011, p. 39).

These challenges in gaining direct access to observe real-life practices seem to apply to studying a broader area of professional practice, which is evidenced by early studies in design that employed protocol studies in laboratory settings (Dorst & Cross, 2001; Goldschmidt, 1997; Schön, 1988). By isolating the cognitive activities of designers from messy reality, such research design allows researchers to successfully observe the emergent patterns of designerly thinking and doing of professionals. However, experimental settings can influence the behaviour of participants in different ways due to their sanitised nature (e.g., Crilly, 2015, pp. 60–61), whereas the real-life contexts of design practice involve much ambiguity and uncertainty (Daalhuizen, 2014, pp. 18–20; Leifer & Steinert, 2011). Therefore, using laboratory settings may not always be best suited to discerning the “situated” and “evolutionary” practices of professional designers in unique project contexts (e.g., Dorst, 2003; Paton & Dorst, 2011). Analogously, describing a design process as a social phenomenon subject to interpretation, McDonnell argued that “the form and nature of design decision making cannot be gained otherwise than by studying the designing in the context of professional practice” (1997, p. 473). Similarly, Blessing et al. called for development of novel methods for descriptive studies that “reveal a chain or a network of causes and effects, connecting influencing factors with the criterion” (1998, p. 45). Answering to this call for methodological development to enquire into designing as a professional phenomenon to adequately describe it in its context, scholars are increasingly

turning to other means of inquiry to uncover the meta-activities and social roles. Recent studies relied more on interviews (e.g., Haug, 2015; Paton & Dorst, 2011; Tzortzopoulos et al., 2006), case studies (e.g., Badke-Schaub & Frankenberger, 1999; van Kuijk et al., 2019) and ethnographic observations (e.g., Hakatie & Rynänen, 2007; Lloyd, 2000; Nicholas & Oak, 2020; Stigliani & Ravasi, 2018; Stomppf et al., 2016) as the prime data collection strategies when inquiring into the ways professional designers go about in their daily practice.

Building on this development, all three studies of this dissertation inquire into the professional practices of briefing prior to project commission through the experiences and concerns of the actors involved in the process (e.g., Braun & Clarke, 2006, pp. 83–86; Flick, 2009, pp. 428–249; Glaser & Strauss, 1967), each with progressively deeper engagement with the actors involved (Table 10). As observing the moment of pre-project briefing is not easily achieved due to its idiosyncratic and confidential nature, they approach the phenomenon through interviews, Delphi-inspired expert inquiry and ethnographic observations. By studying briefing at the pre-project phase, this dissertation aims to shed light on how practitioners carry out briefing in their “social processes and structures that form part of the context of, and the explanation for, individual behaviours or beliefs” (Lewis & Ritchie, 2003, p. 267).

Table 10 Research scope and methods used in the three studies in this dissertation

Studies	Method	Data	Field	Journal and status
Study 1	Interviews, document analysis	Semi-structured interviews (N=19), offer documents and ancillary documents, follow-up interviews (N=10)	Industrial design consulting (mostly commercial context)	International Journal of Design (published in 2018)
Study 2	Delphi-inspired expert inquiry	Open-ended, essay-type survey and interviews for review (N=13), Delphi ranking (N=11), interviews on ranking results (N=12), follow-up interviews & document feedback for clarification and contextualisation (N=12)	Industrial design consulting (mostly commercial context)	International Journal of Design (in review)
Study 3	Interviews, unstructured observation (53 days)	Interviews (N=26), field notes (44 pages) with ancillary sketches and photographs, legal documents and other ancillary texts, follow-up interviews (N=5) and discussions (N=2)	Service design consulting (public procurement context)	Design Studies (published in 2020)

The third and final commonality is that all three of them pursue “co-constituted” sensemaking (Finlay, 2002). Prior studies on briefing in design have also utilised qualitative and inductive approaches in data collection and analysis, such as exploring clients’ front-end activities in architectural design projects through interviews and documents (Tzortzopoulos et al., 2006), utilising grounded theory on interview data to discern (re)framing strategies of professional visual designers (Paton & Dorst, 2011) and analysing interviews and project documentation to elicit patterns of changing client requirements in industrial design consulting (Haug, 2015). As evident in Table 11, they all explicitly pinpoint the lack of foundational knowledge in literature as the rationale of the inductive approaches similarly to the studies of this dissertation. However, the ways in which these studies approach their interviewees are somewhat unilateral in that the interviews were done once, and interviewees are not invited to participate in the analysis process.

Table 11 Quotations from exemplary inductive studies on briefing

Study	Quotation
Tzortzopoulos et al. (2006, p. 660)	“the front-end is often lengthy and little is understood about its nature in the context of the overall process”
Paton & Dorst (2011, p. 575)	“Whilst the idea of a brief as a starting point for projects is widely accepted, the activities associated with the creation of a brief and the negotiations for its (re) definition are not often examined”
Haug (2015, p. 48)	“clear overviews of the different causes of communicative problems in design projects are lacking”

In contrast, the studies of this dissertation pursue rich and reflective discussions on the findings together with the interviewees (Ormston et al., 2014, pp. 6–8) by recognising them as “active participants” (Holstein & Gubrium, 2004, p. 150). As will be discussed in the sections that follow, Study 1 explores what briefing prior to project commission entails in industrial design consulting (RQ 1¹²) by interviewing nineteen experienced industrial design consultants, and inviting ten of them to comment on a set of unfinished diagrams that represent initial findings (Crilly et al., 2004, 2006). In doing so, it also explores the ways in which practitioners systematised briefing in order to bridge uncertainties for themselves and (potential) clients (RQ 3¹³). Building on the notion of clients’ readiness to work with external design consultants found in the previous study, Study 2 explores if and how industrial design consultants carry out briefing differently for inexperienced versus experienced clients through a Delphi-inspired qualitative inquiry (RQ 2¹⁴). In order to build a nuanced understanding about how clients’ proficiency for using design is experienced by industrial design consultants, it facilitates multiple rounds of mediated and anonymous dialogues among twelve experts and asks each of them to verbally express their experiences through individual interviews with textual stimuli. Study 3 investigates how briefing at the pre-project phase unfolds in public procurements for service design projects in the Finnish public sector (RQ 1) by ethnographically observing and having conversations with service design consultants in a consultancy while also interviewing public servants who are involved in those procurements. Similarly to Study 1, Study 3 also goes back to public servants and service design consultants with initial findings and invites them to analyse the phenomenon together. This approach proved to be effective, as new findings emerged only when the initial findings were presented to the interviewees, capturing “ambiguity and multiplicity of meaning” (Finlay, 2002, p. 223). Most notably, the situated nature of clients’ proficiency in using design in Study 2 came to light only during the discussions based upon the results from the ranking.

As a whole, this dissertation aims to discern what briefing prior to project commission entails by juxtaposing the real-life briefing practices and their contexts in industrial design consulting in the commercial sector and in the public procurement of service design. Scholars have long utilised such “paired comparisons” to gain access to intimate analysis that cannot easily be achieved through large-N studies, while also “increasing the inferential power” (Tarrow, 2010, p. 244). For instance, comparing two radically different democratic nations can help discern what the common denominator is across all democracies (Kantor & Savitch, 2005). By

¹² RQ 1. What does briefing entail before project commission in design consulting?


¹³ RQ 3. What are the potential challenges for briefing at the pre-project phase in design consulting?

¹⁴ RQ 2. What role does clients’ proficiency in using design play for briefing prior to project commission?

contrasting the findings of the three studies, this dissertation seeks to discern a parsimonious description of the professional phenomenon of briefing prior to project commission (Figure 4).

Figure 4 Paired comparison of Study 1 and 3 in this dissertation

Client's sector \ Design consulting field	Industrial design consulting	Service design consulting
Commercial sector	Study 1	–
Private sector	–	Study 3



Such comparisons shall be conducted carefully, however, as not all cases are comparable – the cases can be misclassified or stretched in their concepts, and are thus incomparable by nature (Sartori, 1991). Therefore, one should pay close attention to the units of comparison and geographical boundaries (Robinson, 2011, pp. 13–16). The studies of this dissertation look into briefing practices prior to project commission in the Finnish context, where design consultants across different subfields of design operate within a “shared reality” (Echterhoff et al., 2009). As discussed earlier (2.1.3), the differences between the two contexts include the physical and static notion of products and the intangible and perishable notion of services (e.g., Edvardsson & Olsson, 1996), as well as the centralised resources and key stakeholders of private sector clients and the networked and dispersed nature of resources and stakeholders of public sector clients (e.g., Warland & Mayer, 2017). In pursuing a “paired comparison” of such different contexts (Tarrow, 2010), the underlying assumption is that there would also be common characteristics between them given the “sharedness” (Echterhoff et al., 2009, pp. 497–501) of disciplinary (design), professional (consulting) and national (Finland) contexts. To this end, following the interpretivist and constructivist tradition (e.g., Ormston et al., 2014), this dissertation adds to the ongoing effort to understand professional practices “in their temporal and local particularity” (Flick, 2009, p. 21).

There are general concerns about quality in designing and reporting qualitative research (Miles & Huberman, 1994; Seale, 1999) and how to best assess it has been the subject of ongoing discussion in the research community (e.g., Flick, 2009, p. 384; Gioia et al., 2013). Scholars often consider the concepts of validity and reliability as the most important yardsticks to evaluate the quality of academic endeavours (e.g., Drost, 2011). However, validity and reliability as used in natural sciences and quantitative research studies are inadequate for qualitative research (Lewis et al., 2014, p. 355; Pratt, 2008). For example, discussing generalisation in qualitative research, Patton argues that “[e]xtrapolations are logical, thoughtful and problem-oriented rather than statistical or probabilistic” (2002, p. 584). Evaluation criteria for qualitative research are therefore closely related to the relevance and sensitivity to the phenomenon under

investigation, methodological coherence, communication and credibility (Moisander & Valtonen, 2006, p. 148). Consequently, the quality “is enhanced if researchers engage with philosophical and methodological debate” (Seale, 1999, p. 8).

This dissertation engages in such debate by elucidating the challenges in studying the phenomena under investigation, transparently presenting the methodological choices and processes, and discussing potential pitfalls and their remedies. As the methods used are described in detail in the attached published articles, the sections that follow (1) provide a short summary of methods used and my involvement in each study and (2) focus more on highlighting the potential pitfalls involved in the methods employed, and how those are dealt with, addressing them in a level of detail that would not have been possible in each study due to the limited space.

3.1 Study 1

As the first study of this dissertation, Study 1 enquires into the nature and professional contexts of briefing at the pre-project phase from the perspectives of industrial design consultants in Finland. The specific research questions include: how the consultants initiate project discussions with potential clients; if and how they prepare for briefing; when and how conversations about new projects emerge; and if and how the formulation of a brief influences the later phases of projects.

3.1.1 Summary of the method used

As the topics had been scantily studied in the literature, in-depth interviews were employed “to generate descriptions and interpretations” (Yeo et al., 2014, p. 178) about briefing at the pre-project phase and its implications as perceived by the consultants. Considered as the most widely used data collection method in qualitative research (Ritchie, 2003, p. 36), the in-depth interviews helped uncover “the meaning people attribute to their experiences and social worlds” (Miller & Glassner, 2004, p. 126). Similarly to Haug (2015, p. 53) and Paton and Dorst (2011), who studied the briefing and reframing activities of design consultants, in-depth interviews were considered particularly appropriate for this explorative study, as this method allows access to the experiences that consultants have accumulated over the years.

Nineteen experienced industrial design consultants in Finland were identified through a combination of purposeful (e.g., Patton, 2002, p. 230) and snowball sampling (e.g., Faugier & Sargeant, 1997). First, the online portfolios of the consultancies listed on the website of the Finnish Design Business Association (FDBA) were reviewed and those consultancies with a strong focus and significant track record in industrial design consulting were approached. As an independent body of design consultancies in Finland, FDBA listed the largest number of Finnish design consultancies in all fields at that time. Then, professors and lecturers at Aalto University were approached to extend the list. Each interviewee was asked for referrals at the end of the interview, and the search concluded when saturation emerged in the referrals. The lengths of experience of the consultants in the resulting list ranged from 8 years to 39 years with a median of 20 years¹⁵ (Table 12).

¹⁵ This is calculated from the actual data. As the industrial design consulting scene in Finland is relatively small, revealing the precise length of experience in years could reveal the identities of some of

Table 12 List of interviewees in Study 1 (originally presented as Table 1 in Paper 1)

	Position	Experience (years) ^{ab}	Number of employees ^c	Focus areas include
A	CEO (co-founder)	26+	11-50	Consumer products, professional products
B	CEO (co-founder)	26+	11-50	Consumer products, products in public spaces
C	CEO (founder)	26+	1-10	Heavy machinery, industrial and construction parts
D	CEO (founder)	21-25	1-10	Heavy machinery, products in public spaces
E	CEO (founder)	26+	1-10	Automation machinery, healthcare products
F	Director, lead-designer	26+	11-50	Consumer products, interior items
G	Director, lead-designer	16-20	11-50	Heavy machinery, professional products
H	Director (co-founder)	16-20	11-50	Consumer products, packaging
I	Director (co-founder)	6-10	1-10	Professional products, vehicle
J	Director	6-10	11-50	Consumer products, heavy machinery
K	CEO (founder)	26+	1-10	Consumer products, sports equipment
L	Senior designer	21-25	11-50	Consumer products, heavy machinery
M	Director (co-founder)	6-10	11-50	Healthcare products, vehicle
N	Director (founder)	16-20	11-50	Construction parts, consumer products
O	Senior designer	11-15	1-10	Industrial parts, products in public spaces
P	CEO (co-founder)	11-15	11-50	Consumer products, packaging
Q	Account manager, designer	6-10	11-50	Industrial and construction parts, retail space
R	Director, lead-designer	26+	11-50	Healthcare products, professional products
S	Senior designer	16-20	11-50	Consumer products, heavy machinery

a. As of 2014

The first interview round was organised between January and October of 2014. I as the first author conducted all the interviews with a semi-structured interview guide, while keeping the conversation open. The interview guide was prepared in close collaboration with the co-author. The questions ranged from how consultants approach (potential) clients, how initial project discussions typically begin, how and when they take place, and whether and how the consultants prepare for such discussions. During the interviews, I intentionally refrained from using such terms as “briefs” or “briefing” unless the interviewees first brought them up to avoid leading questions (e.g., Ritchie et al., 2014). The interviewees were assured of confidentiality and anonymity and the interviews were audio-recorded with the consent of the interviewees. The length of the interviews ranged from 30 to 106 minutes, generating 20 hours and 38 minutes of audio material for analysis. At the end of each interview, I asked the interviewees to share exemplary briefing-related documents. Seven interviewees shared documentation from projects, including brochures, design briefs, offer documents, briefing checklists and partial material from a workshop manual. Sensitive details, such as names of the clients, were redacted prior to being shared with us. Documents in Finnish were translated into English by a professional translation firm.

In analysing the interview transcripts, the systematic steps of thematic analysis were followed (Braun & Clarke, 2006). As a “rarely acknowledged, yet widely used qualitative analytic method”, thematic analysis provides “an accessible and theoretically flexible approach to analysing qualitative data” (Braun & Clarke, 2006, p. 77). As the first author, I fully transcribed all the interviews and coded the transcripts in vivo. Next, a combination of focused and axial

the interviewees. As the interviewees were assured of anonymity, I have chosen to reveal the data in the form of ranges (e.g., 11-50 in Table 12), not using the exact number of years.

coding commenced to iteratively establish a systematic and comprehensive coding scheme (Saldaña, 2013). Axial coding was used to identify different phases of briefing from the discussions with the interviewees, such as: cold calling or introduction through other clients, initial discussion either on the phone or face-to-face, project proposal and offering, and kick-off.

Focused coding was used for, among other themes, to discern the different themes of clients' proficiency in working with industrial design consultants. In discussing the initial findings and reviewing the transcripts over several rounds of iteration, emergent codes were added to the coding scheme to capture the briefing practices of the consultants, while existing codes were updated and merged for better fit and/or coverage. The systematisation of our data and iterative analysis arrived at a code system of 10 main codes and 35 sub-codes. The coding scheme revealed patterns in how briefing and sales played out in the practices of the consultants, and how such practices were seen to be influenced by the professional context within which the design consultants operated. In particular, the analysis shed light on a set of distinct briefing and sales practices the consultants adapted to prevent and/or alleviate the everyday challenges they faced when detailing the scope and phases of projects with potential clients.

3.1.2 Potential methodological challenges and responses

Dilemmas in using interviews as a research method have long been noted by a number of scholars (e.g., Gunaratnam, 2001; James & Busher, 2006; Lowes & Prowse, 2001; Mercer, 2007; Riessman, 1993; Silverman, 2013, pp. 174–180). As the research questions of Study 1 concern the professional practices of experienced design consultants, the challenges articulated by Miller and Glassner seem to be of particular relevance: (1) researchers being incapable of asking the right questions due to a lack of understanding of the phenomenon or membership; (2) interviewees becoming cautious and not sharing everything or intentionally misleading the interviewer; (3) the accounts of interviewees being only partial, as interviews cannot be infinite in length; and (4) familiar narrative constructs displacing meaningful insights (2004, pp. 127–128).

In Study 1, these challenges were addressed through the following responses. The first response pertains to whether the researcher would be capable of asking the right questions. Industrial design consulting is a highly specialised field, one which outsiders can hardly make sense of even if they are trained in other fields of design (e.g., architecture or visual communication design). The experience of the first author as a design consultant for more than five years in Seoul and Helsinki and the training and expertise of the second author in industrial and engineering design helped understand the interview discussions and ask relevant follow-up questions effectively. Further, the fact that the first author acquired a master's degree and was working at Aalto University helped find common ground and establish initial relationships with many of the interviewees. Design education and industry in Finland have been in symbiosis throughout its rapid economic development (Korvenmaa, 2001; Valtonen, 2007). As the single school responsible for the training of all industrial designers from the 1960s until 1992 (Valtonen, 2007, p. 12), Aalto University has the alumni network with the widest reach¹⁶. In fact, 10 out of 19 interviewees in this study were Aalto University alumni, and as a result, the discussions were predominantly open and friendly. One issue that might remain unsolved is

¹⁶ Formerly known as the University of Industrial Arts Helsinki (UIAH) and later as the University of Art and Design Helsinki before the merger in 2010 of the Helsinki University of Technology and the Helsinki School of Economics.

whether domain-specific topics discussed by interviewees could be understood by the interviewer. For instance, a design consultant specialised in professional medical appliances discussed how changes in government policy and regulation could have a significant impact on their work in new product development. That said, I believe that this would not deter the interview-based inquiry of Study 1, as the professional context and practices discerned in the study concern more meta-level challenges and activities.

The second response concerns the cautiousness of interviewees and how they may not want to share proprietary information with researchers. Indeed, some interviewees considered the briefing practices developed in their consultancies as trade secrets and/or were cautious about sharing project documents, as it may violate non-disclosure agreements made with their clients. Therefore, prior to the interviews, we assured the consultants that we would maintain their anonymity and confidentiality in the final report. As a result, none of the consultants hesitated to show us briefing-related documentation during the interviews and some of them allowed us to take pictures and/or make sketches of partial information. Further, seven interviewees agreed to share briefing-related documentation with us, including brochures, offers, design briefs, briefing checklists and partial material from a workshop manual with details about individual projects and clients redacted. These documents helped us understand how documents and visual aids support briefing in their work and provided us with essential material for data triangulation (e.g., Thurmond, 2001).

The third and final response pertains to the partial accounts from the interviewees due to the finite length of interviews and specific constructs possibly displacing meaningful insights during interviews. As the interviews were semi-structured, some interviewees naturally spoke for a significant fraction of time about a particular facet of briefing based on the types of clients and/or industry they serve. Discussions with some interviewees represented certain constructs in a specific era of design education, such as design management as “total experience design” (Valtonen, 2007, pp. 238–245), or defined the core expertise of the design consultancy as designing “connected devices”, as it was a key to their marketing strategy. That said, I believe the combination of purposeful (e.g., Patton, 2002, p. 230) and snowball sampling (e.g., Faugier & Sargeant, 1997) mitigated many of these challenges induced by the partiality of accounts. As the 19 interviewees were highly experienced industrial design consultants in Finland with a median of 20 years of practice, the discussions during the interviews covered a wide range of eras and expertise to which the different design consultants adhered to, while also revealing strong commonalities amongst them in the context of Finland.

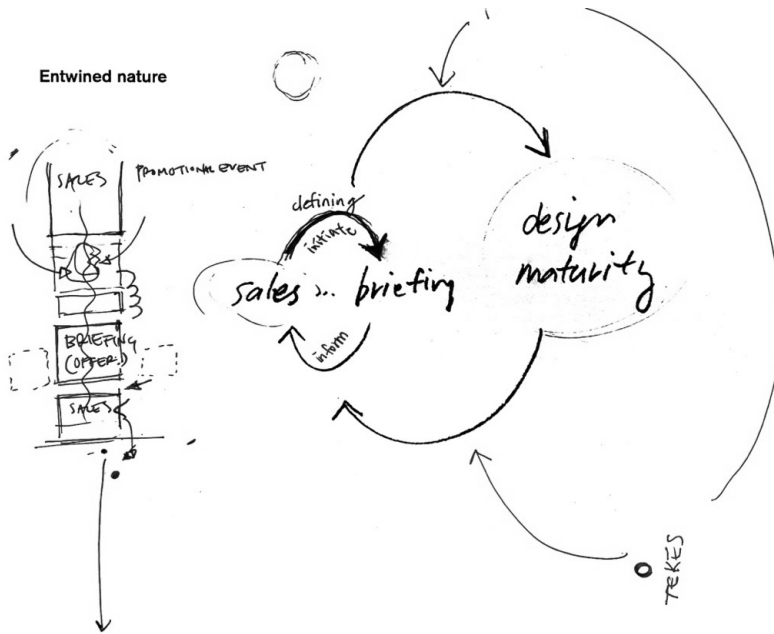


Figure 5 One of the research diagrams with an interviewee's notes and scribbles (originally presented as Appendix 4 in Paper 1)

Further, a holistic account on briefing practices was enabled by pursuing “co-constituted” accounts (Finlay, 2002, p. 218) and “mediated” sensemaking (Ritchie et al., 2014). Similarly to Person, Snelders and Schoormans (2016), two rounds of semi-structured interviews were arranged. The first round was conducted with an interview guide (Appendix 1 in Study 1) to maintain a balance between structure and flexibility (Legard et al., 2003, p. 141). For the second round, nine consultants were invited following maximum variation sampling (Marshall, 1996) to review the findings and join the analysis by commenting and drawing on a set of unfinished diagrams (Crilly et al., 2004, 2006). The diagrams sparked discussions with new examples and the interviewees were eager to participate in the analysis reflecting upon their daily practices (Figure 5). In short, by acknowledging the role of the interviewees as “active participants” (Holstein & Gubrium, 2004, p. 150), the inquiry was kept open to emergent themes and to further hone in on the initial findings (Alasuutari, 1996).

3.2 Study 2

Extending one of the findings from Study 1, Study 2 enquires into how industrial design consultants in Finland tailor their briefing practices at the pre-project phase to the proficiency of clients in using design through a Delphi-inspired expert inquiry (e.g., Linstone & Turoff, 2002; Okoli & Pawlowski, 2004; Schmidt, 1997). The research questions include: What information do design consultants find relevant when preparing an offer during the pre-project phase; How design consultants prepare and carry out briefing differently according to the (perceived) degree of proficiency of clients in using design; How clients' proficiency in using design is conceptualised by practitioners in briefing prior to project commission.

3.2.1 Summary of the method used

Enquiring into how design consultants adjust and align their briefing practices with the clients' proficiency in using design and what kinds of information they seek, Study 2 takes inspirations from the principles of the Delphi methodology (e.g., Linstone & Turoff, 2002). As discussed earlier, the initial project discussions between design consultants and potential clients involve a high degree of confidentiality and idiosyncrasy, while only a few of those lead to actual projects. This makes it challenging for researchers to gain direct access to the moment of briefing at the pre-project phase. Therefore, adopting the Delphi method is deemed useful for Study 2, as it provides indirect access to the phenomenon and “can provide a novel and interesting way of exchanging and distilling information from the experts involved” if “Delphi designers are imaginative in their analysis, feedback and construction of the sequential questionnaires” (Ziglio, 1996, p. 21).

The Delphi-inspired expert inquiry of Study 2 commenced in two stages. The purpose of the first *Foundation* stage was to map the broader areas of interest of industrial design consultants in briefing by generating and reviewing statements (factors) concerning how the experts tend to the proficiency of their clients in using design. The purpose of the second *Advice* stage was to derive actionable guidelines for offer-making from the discussions with the expert panel while they evaluated the comparative relevance of the discerned factors for inexperienced and experienced clients. In doing so, a more nuanced conceptualisation of clients' proficiency in using design also emerged. The first stage took place between March 2017 and May 2018, and the second one took place between June and October in 2020.

The first stage, *Foundation*, began with recruiting the experts to form a panel, which will be discussed in more detail in the next section. In summary, we invited 20 experts to join our study by extending the list of industrial design consultants from Study 1 through referrals, and 13 of them agreed to participate. We sought to form “a group of *reflective* minds” with “as many diverse points of view as possible” (Mitroff & Turoff, 2002, pp. 33–34, italics original) in order to draw together a rich picture about the topic. Therefore, we limited the number of designers from one consultancy to two in our expert panel for maximum variation (Marshall, 1996).

Table 13 Expert engagement during the first stage, Foundation (originally introduced as Table 3 in Study 2)

Steps	Expert participation	Result
1. Open-ended survey to the expert panel	13/13	<ul style="list-style-type: none"> Answers to the open-ended questions amounting to 3,634 words (21,211 characters)
2. Reviewing and iterating factors and categories with the expert panel	13/13	<ul style="list-style-type: none"> 122 factors in six common categories
3. Prioritisation of factors by the expert panel	11/13	<ul style="list-style-type: none"> Factors selected and ranked according to their relevance in preparing offers for inexperienced vs. experienced clients

Once the panel was recruited, the data collection and analysis of the first stage took place in three discrete steps (Table 13). Inspired by the ranking-type Delphi variant (Okoli & Pawlowski, 2004), an essay-type and open-ended online questionnaire was administered to uncover the interests and practices of design consultants when they create offers. Given the lack of a strong consensus in the design research community about the definition of proficiency in using design (e.g., Heskett & Liu, 2012; Malmberg, 2017; Ramlau & Melander, 2004), and hence the potential ambiguity of the inquiry, we made a general distinction between inexperienced versus experienced clients in our questionnaire (Table 14). We also made a distinction between what design consultants consider in preparing an offer and what they emphasise in

offer documents. In doing so, the aim was to discern commonalities and differences across those four situations.

Table 14 The open-ended questionnaire (originally introduced as Table 4 in Study 2)

Category	No.	Question
For inexperienced clients	1	How do you recognise that a client is “inexperienced” in using design?
	2	What are the things you consider while preparing offers for “inexperienced” clients? Please try to list as many as possible.
	3	What needs to be emphasised in offer documents for “inexperienced” clients? Please try to list as many as possible.
For experienced clients	4	How do you recognise that a client is “experienced” in using design?
	5	What are the things you consider while preparing offers for “experienced” clients? Please try to list as many as possible.
	6	What needs to be emphasised in offer documents for “experienced” clients? Please try to list as many as possible.
Final remarks	7	Please use this section if you want to make any clarification in relation to your answers or if you have any feedback on the questionnaire itself.
Referral	8	Could you please recommend another industrial design consultant that could be relevant for this study?

Analysing the answers to the open-ended questions – which amounted to 3,654 words – we generated 181 factors in 33 distinct categories. We tested this initial result with our colleagues at Aalto University, which revealed that, although the coverage was deemed comprehensive, the sheer number of factors and categories made it overwhelming to review all of them without fatigue. We therefore reduced the number of the factors to 113 and the categories to six by synthesising the factors and raising the level of abstraction. They were then reviewed by our expert panel through phone interviews between January and February in 2018, during which the experts had an opportunity to revise or delete the factors associated with each situation (category), as well as extend or reduce the coverage of factors across different situations. They were also asked to add new factors and categories if they felt something important had been overlooked. The review resulted in 122 factors across six common categories that captured the varying interests of the expert panel when they are creating offer documents for inexperienced and experienced clients (for an example, see Table 15).

Table 15 Examples of factors discerned for the Fees category

BRIEFING SITUATIONS	FOR BOTH INEXPERIENCED AND EXPERIENCED CLIENTS	
	FOR INEXPERIENCED CLIENTS	FOR EXPERIENCED CLIENTS
I CONSIDER [...] THE FOLLOWING] TO ESTIMATE THE FEE WHEN PREPARING AN OFFER	... the client’s willingness to invest in design	
	... having a discussion with the client to adjust the estimated fee so that it feels reasonable from the client’s perspective	
	... how to negotiate the amount of deliverables for each project phase	
	... the resource limitations the client has for the project	
	... how to justify the pricing of our work in the project	... how to allocate hours for each project phase*
	–	... how to remind the client that an investment in design is relatively small compared to other investments (e.g., marketing or R&D)

I EMPHASISE [...] THE FOLLOWING] CONCERNING THE ESTIMATED FEE IN THE OFFER DOCUMENT	... the total price for the project	
	... the price for each project phase	
	... the amount of work hours needed for the project	
	... that the scope of the project needs to be open-ended if the project bears much uncertainty	–

Among the generated factors, 62.3% (76/122) pertained to what industrial design consultants consider in preparing offer documents for clients (Table 16). Most of the factors in each situation were considered to be relevant for both inexperienced and experienced clients in terms of what design consultants consider in preparing an offer (43/76=56.6%) and what they emphasise (28/46=60.9%) in the documents. Finally, they included more unique factors that pertain to briefing with inexperienced clients (31 factors) than with experienced clients (20 factors).

Table 16 Distribution of factors across categories and situations (originally introduced as Table 5 in Study 2)

Categories	What is more important to consider when preparing an offer?			What information is more important to emphasise in the offer document?		
	Common for both	Unique to inexperienced clients	Unique to experienced clients	Common for both	Unique to inexperienced clients	Unique to experienced clients
Project Objectives	10	1	4	3	2	2
Project Plan	9	8	2	8	1	1
Fees	4	1	2	3	1	0
Collaboration & Coordination	5	1	0	4	1	1
Competition	5	1	3	7	1	4
Client's Readiness	10	9	1	3	4	0
Total	43	21	12	28	10	8

The experts were then asked to rank the relative importance of the factors across the six categories (from *Project Objectives* to *Client's Readiness*) in terms of the four briefing situations (what to consider versus emphasise for inexperienced versus experienced clients). This ranking was conducted through an online survey tool. As will be discussed in the following section, the selection and elimination step was combined with a rank-ordering step (Okoli & Pawlowski, 2004) to reduce the chance of fatigue. For each category, the experts were asked to select at least half of the factors for a specific briefing situation, and to rank-order the selected factors according to their relative importance. After rank-ordering the factors in each category, they were asked to rank-order the relative importance of the six categories when briefing for inexperienced and experienced clients. Eleven of the 13 experts completed the survey.

The responses to the survey were first analysed by comparing the frequency by which different factors were included in the top-half selection of the experts for each category and situation. Next, Kendall's coefficient of concordance on the original rank-orders of the categories and factors in each situation was calculated to assess the degree of consensus (agreement) within our panel about their relative importance (e.g., Okoli & Pawlowski, 2004; Schmidt, 1997). For each situation and category, the non-selected factors were assigned a rank-order similar to the average of the potential rank-order for the non-selected factors. For example, for a situation and category with nine factors of which an expert had ranked four, all non-selected factors were assigned a rank of seven. All but two of the earlier generated and reviewed factors were included in the top-half selection of the experts at least once across the studied situations. 81.3% of the factors were included in the top-half selection by at least three experts in a specific situation (Table 17). Kendall's W ranged from 0.05 to 0.39 for the factors and 0.23 to 0.43 for the categories in each of the studied situations, which indicates weak agreement (disagreement) among the experts in terms of what factors and categories would be more important to consider in preparing offer documents for inexperienced and experienced clients.

Table 17 Number of factors included in the top-half selection of the experts (originally introduced as Table 6 in Study 2)

	0	1	2	3	4	5	6	7	8	9	10	11	Total
Common	1	3	2	4	6	9	15	10	13	5	3	0	71
(%)	1.4	4.2	2.8	5.6	8.5	12.7	21.1	14.1	18.3	7.0	4.2	0.0	100%
Exclusive: Inexperi- enced	1	1	3	4	4	4	3	7	3	1	0	0	31
(%)	3.2	3.2	9.7	12.9	12.9	12.9	9.7	22.6	9.7	3.2	0.0	0.0	100%
Exclusive: Experienced	0	1	1	2	2	4	5	2	3	0	0	0	20
(%)	0	5	5	10	10	20	25	10	15	0	0	0	100%
Overall	2	5	6	10	12	17	23	19	19	6	3	0	122
(%)	1.5	3.7	4.5	7.5	9.0	12.7	17.2	14.2	14.2	4.5	2.2	0.0	100%

The second stage, *Advice*, was organised to explore the limited agreement among the experts about the relative importance of the factors – and the underlying reasonings for their assessment – that were discerned during the first stage. We reached out to all thirteen experts through e-mail and phone calls with a request for an interview to discuss the results from the first stage. The twelve experts that accepted our invitation were interviewed in June and July of 2020 using video conferencing software. The limited agreement in the rank-order result suggested that some of the experts in the panel might have experienced challenges in selecting and prioritising all the generated factors and categories. Also, an initial discussion with one of the experts after the first stage revealed that it was difficult to have a clear overview on and distinction across the factors in placing them into the four briefing situations of interest (what to consider versus emphasise for inexperienced versus experienced clients). It also became apparent that the expert found it difficult to provide advice by assessing the general importance of each factor, and thus relied on specific experiences. To enable in-depth discussion, we chose to use those factors that had been included in the top-half selection by at least half of the experts at the end of the first stage and prepared visual presentation slides where the factors were grouped according to their affinity to each other.

The overarching goal of the study and our interest in providing guidance for briefing – and a short introduction to the underlying rationale for the research design – was discussed at the beginning of each interview. Using the prepared slides (Crilly et al., 2006), the experts were guided to review the factors by going through each affinity group in a step-wise and comparative manner. Next, they were asked to comment about the suitability of including the selected factors as guidance for each situation. As the discussion progressed, they were also asked to comment on whether the factors are equally relevant for both inexperienced and experienced clients, or more important for either one, and requested to discuss their rationale. The interviews/presentations took between 50 min and 2 hours and were audio- or video-recorded with the consent of the experts, resulting in more than 20 hours of data. The recordings were reviewed and the experts' reasoning on each factor was summarised in tabular form to create an individual report for each expert, in which the factors with unclear relative importance and/or reasoning were highlighted. Following up on the interviews, the individual reports were sent to each expert for a review of completeness and accuracy. Written verifications and clarifications on our summaries were received from five experts through e-mail; these were complemented with short face-to-face or telephone discussions. For the rest of the experts, yet another round of interviews was organised that ranged from around 30 min to 2 hours, resulting in a bit more than 9 hours of additional recordings.

Data analysis commenced after the majority of the first round of interviews had been conducted. More data was added iteratively to the process as more interviews were conducted,

transcribed and coded. Over multiple rounds of coding, commonalities and differences were sought in the reasoning of the experts by grouping statements based on their similarity, starting by establishing patterns in the reasoning within a given category and situation before iteratively comparing and revising the resulting groupings in relation to the reasoning found in other categories and groups. Given the diversity in the responses of the experts, the analysis was organised in two steps. First, commonalities were sought in how the experts characterised inexperienced and experienced clients as well as their interactions with such clients. Second, a framework to contextualise their varied assessments and reasoning on the factor was established. The analysis resulted in two lines of reasoning – encompassing separate cross-cutting and interrelated topics – capturing the interests of industrial design consultants in tailoring their practices to inexperienced and experienced clients. Finally, these two lines of reasoning were juxtaposed against the experts' final assessments of the factors in each category as well as the resulting contextual framework in consolidating and summarising the discussions within the panel.

3.2.2 Potential methodological challenges and responses

As addressed at the beginning of this dissertation, the author's contribution to Study 2 was not as significant as to the other two. The first author, Oscar Person, was responsible for the research idea and research design as well as the conceptual and empirical reasoning for the study and resulting manuscript. I as the second author was mainly responsible for data collection during the first (Foundation) of the two stages. The preparations for data collection and data analysis were executed in collaboration with the first author at this stage. For the second stage (Advice), Person was responsible for data collection and analysis, as well as for writing the manuscript and finalising the study. I assisted in the preparation of the interview stimuli. I also took part in six interviews in the first of the two rounds during this stage and provided support during analysis by transcribing and doing the initial coding of these interviews, as well as by assisting in reviewing and synthesising themes according to the instructions. I contributed to the manuscript by writing sections about the method and results, as well as reviewing/editing the text. Therefore, the methodological discussions that follow concern mostly the data collection and analysis from the first stage where I had the greatest empirical impact on the resulting work.

Initially devised as a method for utilising expert responses for strategic forecasting and decision making in the 1950s by the RAND (Research And Development) Corporation, the Delphi methodology has been adapted for diverse purposes (Linstone & Turoff, 2011). The method is useful to study topics with “sufficient ambiguity from prior research or the lack of pre-existing information to reach a solution” and “a need to provide order or the assignment of relative importance of a set of items for research and/or practice” (Worrell et al., 2013, p. 198). Studies have employed the method to understand, and develop guidance for, a variety of types of professional practice, including: continuous education for social work (Faherty, 1979), communication in cancer care (Hitch & Murgatroyd, 1983), professional identity of nursing and workload (Procter & Hunt, 1994), the status of primary education (Sahin, 2010), improving the quality of marketing research (Fastoso & Whitelock, 2011), dementia prevention (Deckers et al., 2015) and risk associated in using social media by organisations (Gangi et al., 2018). In design, the method has been used to study various topics, including identifying different facets of multi-disciplinary groupwork (Denton, 1997) and prioritising the benefits of using the Persona method (Miaskiewicz & Kozar, 2011). The iterative process of the Delphi method has also

been adopted by scholars for developing an experimental research design (Gero & Mc Neill, 1998).

With the applications of the method diversifying and its popularity rising, incautious use of the Delphi method has also been criticised by scholars. Despite its potential to contribute to research and practice, failing to adapt the method appropriately to satisfy the aim and research question of the study can lead to reduced rigour and irrelevance of the study results (Worrell et al., 2013, p. 197). The important areas of critique revolve around (1) appropriateness of the expert panel (Keeney et al., 2001, p. 196), (2) anonymity and pressured consensus (Goodman, 1987, p. 733; Woudenberg, 1991), and (3) fatigue and poor response rates (Keeney et al., 2001, p. 198). Although controlled feedback and iteration are considered to be essential features of all Delphi studies (Linstone & Turoff, 2002; Worrell et al., 2013, p. 195), the method does not demand a fixed procedure and should be tailored for the aim and purpose of each study (Delbecq et al., 1975, p. 106). Therefore, the usefulness of the Delphi method depends on how the phenomenon under investigation, research question and method are effectively aligned (Worrell et al., 2013, pp. 206–207). For Study 2, the Delphi method was adapted to maximise the validity of the findings and usefulness of the findings for practice.

First, judging the expertise of the expert panel can be an ambiguous issue and there could be other motivations for so-called experts to want to be involved in studies (Keeney et al., 2001, p. 196). Also, the perception of the appropriate number of experts in a panel varies (Worrell et al., 2013, p. 199). To this end, scholars have emphasised rigorous sampling in forming expert panels (e.g., Okoli & Pawlowski, 2004). To mitigate this challenge, we formed the list of potential invitees for our expert panel by extending the list of interviewees from Study 1. As discussed earlier, our process in identifying the interviewees for Study 1 employed both purposeful (e.g., Patton, 2002, p. 230) and snowball sampling strategies (e.g., Faugier & Sargeant, 1997). As a result, the 19 interviewees represent a great deal of experience in industrial design consulting, which covers clients from all areas.

Table 18 Inclusion criteria for the expert panel (originally presented as Table 1 in Paper 2)

Experience (length)	Responsibility	Contemporariness
Ten years (or more) of experience in industrial design consulting in Finland	Regularly involved in sales and/or scoping a project with a (potential) client (either currently or in the past)	Currently working in consultancies and/or involved in teaching industrial design

Between the times when Study 1 and Study 2 were conducted, however, one design consultant moved from consulting to a client firm, while another retired. Also, some consultancies grew in size and diversified the expertise they offer to clients, while others have shifted focus towards other areas. To accommodate these changes and to ensure the representativeness of the expert panel for industrial design consulting in Finland, the list was updated by browsing through the websites of other industrial design consultancies and by consulting professors and lecturers at Aalto University. The resulting list included 22 experts, of whom 20 satisfied the criteria we set up for the expert panel (Table 18). All 20 experts were invited to join the study, of which 13 agreed to join the panel (Table 19).

Table 19 List of the experts who participated in our study (originally presented as Table 2 in Paper 2)

	Current position (past position)	Experience (years)	Focus areas include
A	Director (co-founder)	11-15	Professional products, transportation
B	Director (founder)	21-25	Construction parts, consumer products
C	Director, lead-designer	26+	Consumer products, interior items
D	CEO (founder)	26+	Heavy machinery, products in public spaces
E	Senior designer	16-20	Industrial parts, products in public spaces
F	Director, lead-designer	26+	Healthcare products, professional products
G	CEO (founder)	26+	Heavy machinery, industrial and construction parts
H	Director (co-founder)	11-15	Healthcare products, transportation
I	CEO	26+	Consumer products, heavy machinery
J	Director, lead-designer	26+	Heavy machinery, professional products
K	Co-founder	11-15	Consumer products, heavy machinery
L	Director (co-founder)	21-25	Consumer products, packaging
M	Former director (co-founder)	16-20	Protective devices, machine parts

Twelve of the 13 participating experts in the panel were also the interviewees for Study 1. This provided Study 2 with situatedness and reflexivity (e.g., Ormston et al., 2014, p. 17), a crucial advantage that allowed contextualisation of the responses from the experts. The discussions during the interviews conducted for Study 1 were useful for minimising potential biases of researchers and misunderstanding the jargon used by the experts. They also helped understand the specific examples mentioned in each expert's responses to open-ended questions. Finally, the sustained relationships and trust built over the years helped the experts talk about their work openly and transparently.

Second, the iterative steps in the method to reach a consensus have been criticised as imposing "group pressure to conformity" among the experts (Woudenberg, 1991) and artificially producing a tendency towards greater agreement (Goodman, 1987, p. 733). Anonymity is often considered to be a key feature in Delphi studies, enabling experts to share their experiences "without fear of reprisals or judgment" (Worrell et al., 2013, p. 194). However, absolute anonymity is rarely possible, as the experts sometimes can guess who the other experts are and the experts acknowledge that the researcher can identify their responses (Keeney et al., 2001, p. 197). Accordingly, given the challenges in validity, Pill prescribed considering the method "in conjunction with a more concrete procedure which works backward from the real world" (1971, pp. 63–64).

In Study 2, the qualitative and inductive nature of the Delphi method was strengthened to address this issue by maintaining a direct dialogue with the experts throughout the process. The characteristics of the answers during the *Brainstorming* phase varied widely: some were short and indicative while others were lengthy and extensive, touching upon different details (Table 20). In total, the answers amounted to 3,392 words without final remarks and referrals included. The shortest answer was three words and the longest 344 words, with the median being 32 and the mode being 22. The answers of each expert were divided (coded) in discrete statements, separating the individual factors outlined by an expert in his/her answers. The factors were discerned while reflecting upon the previous discussions and qualitative data from Study 1 and levelling the degree of abstraction. Next, the individual factors were grouped based on their similarity over multiple rounds of iteration.

Table 20 Examples of responses to the open-ended questions

Question	What are the things you consider while preparing offers for “inexperienced” clients? Please try to list as many as possible.	What needs to be emphasised in offer documents for “inexperienced” clients? Please try to list as many as possible.
<p>Examples of responses to the open-ended questions</p>	<p>The most important thing is to make sure that there is a common understanding about the task/goal. The general design development process flow has to be described very carefully (what, why).</p> <p>Designer must be as precise as possible with describing the content of the project: phases and their contents, inputs, outputs, evaluation points, decisions that have to take place to be able to proceed etc. It always helps if there is some previous cases with which to describe e.g. what kind of material is the output in each phase.</p> <p>Quite often the schedule is far too optimistic. It is quite often forgotten that productisation is the most time consuming phase.</p> <p>Inexperienced clients sometimes have their own “fixed idea” about the product/service and the designer must try to remind them about the importance of the customers’ voice.</p> <p>Also the designer must emphasise the importance of the concept phase. Not to rush into development phases before profound, free innovation. (Expert_C)</p> <hr/> <p>The resources the clients have prepared for the task, iteration rounds, and extra clear description of the outcome and open budget. (Expert H)</p> <hr/> <p>Their willingness to discuss what to specify, what to ask for.</p> <p>Formulation of offer: prepare for likely contingencies (i.e. specify responsibilities, amounts, times). (Expert_K)</p>	<p>Try to tell how much we do in concepts, what kind of 3D files we do, how much it helps our client. (Expert_G)</p> <hr/> <p>It is important to understand the phases between milestones, at which to make decisions based on assessment and to make a redesign phase, go or no go decisions.</p> <p>With new concepts the design process should be flexible in all aspects, schedule, design steps, iterations and economics.</p> <p>On the contrary when the goal and technology is ready and mature, the design process should be well thought and organised to achieve the results in a set time. (Expert_J)</p> <hr/> <p>For an inexperienced buyer, the detailed plan and fixed price are usually more important than to a client that knows the process. In the introduction part (or counter-brief) it is important to convince the client that you understand their business and the task you are offering. Detailed pricing also helps the client to believe that there is actually so much work to be done. (Expert_M)</p>

As discussed earlier, the initial analysis yielded 181 factors in 33 distinct categories in response to the four main questions of our Delphi survey (Table 21). Upon receiving feedback from our colleagues, according to whom the number was overwhelmingly large, we synthesised the factors by raising the level of abstraction to make it easier for the experts to grasp. The resulting 113 factors across six common categories were reviewed together with each of the 13 experts through a phone discussion. The length of the phone discussions ranged from 22 minutes to 65 minutes with a mean of 41 minutes, generating 8 hours and 48 minutes of interview material for analysis. The experts had an opportunity to add, delete and revise the factors associated with each question as well as extend and reduce the coverage of factors across different situations/questions. These discussions helped correct the categories and add new factors to the Selection and Prioritisation step.

Table 21 Number of initial factors and categories

Questions	No. of initial factors	No. of initial categories	Exemplary category: exemplary factor
What are the things you consider while preparing offers for inexperienced clients?	66	10	Levelling with client: Smaller scope (lighter project)
What needs to be emphasised in offer documents for inexperienced clients?	39	9	Awareness building: Importance of user involvement
What are the things you consider while preparing offers for experienced clients?	41	8	Managing collaboration: Client's standard process
What needs to be emphasised in offer documents for experienced clients?	35	5	To appeal to the client: Desire to work with the client

Third, fatigue and poor response rates are widely recognised challenges in administering Delphi studies (Keeney et al., 2001, p. 198). To reach an agreement in Delphi, it is critical for the experts to follow through the process until the end (Buck et al., 1993). Indeed, the turnaround time varied widely in our study, with the shortest turnaround time being 0 day and the longest 56 days, with both median and mode being 12 days for the first round. McKenna emphasised that adding a “personal touch”, such as face-to-face interactions, or knowing the researchers from the previous interview can increase the response rate (1989, p. 769, 1994, p. 1224). Further, scholars advocated adjusting the number of rounds appropriately to the type of inquiry (e.g., Keeney et al., 2001, p. 197). To this end, the last two steps of ranking-type Delphi articulated by Okoli and Pawlowski (2004) were merged and streamlined in order to reduce fatigue. Instead of the two-step process that eliminates factors selected by less than half of the experts before asking experts to rank the rest of the factors, a one-step selection and prioritisation was administered. The expert panel was presented with all factors for each category, asked to select half of the factors, and then to rank them in a single round thanks to a modern online survey platform; this would not have been possible with snail mail, which was used in the earlier days of the methodology. This streamlined step provided an additional benefit of helping the experts gain a more holistic view of the fuller ranger of factors while prioritising the selected ones by their relative importance, as the conventional two-step ranking process could potentially have reduced variance in the responses.

3.3 Study 3

Similarly to Study 1, Study 3 explores the professional contexts of briefing. However, it shifts the foci from the sales of industrial design services to the public procurements of service design in Finland for three reasons. First, both industrial design and service design are important contemporary design fields, but they lack focused practical guidelines for and research studies about real-life briefing practices in design consulting. Second, as discussed earlier at the beginning of this chapter, juxtaposing real-life briefing practices and their contexts in industrial design consulting in the commercial sector and in public procurement of service design enables uncovering what briefing prior to project commission entails through “paired comparisons” (Tarrow, 2010). Finally, I have become passionate about designing public services and policy for a more sustainable future during the period of my doctoral study. The research questions of Study 3 include: why and how public organisations in Finland engage with service design expertise; how they prepare and manage procurements of service design; how service design consultancies tender for such procurements; and how public organisations and design consultancies negotiate the scope and contents of such engagements.

In doing so, it reveals potential issues in public procurement as a briefing process against the backdrop of extant literature in design (a more detailed discussion can be found in Section 4.3). In contrast, Paper 3B inductively and thematically examines the findings utilising the richness and nuances of the full data corpus. This section focuses on describing the methods used in Paper 3B, as it contains a fuller picture of Study 3.

3.3.1 Summary of the methods used

Study 1 and 3 are methodologically almost similar in that they both employed inductive thematic analysis (Braun & Clarke, 2006) and pursued “co-constituted” accounts (Finlay, 2002, p. 218). The main difference is that Study 3 enquires into the practices of both sellers (design consultants) and buyers (public servants) of design consulting services. Also, unstructured observation was pursued in Study 3 for an extended period of time in a service design consultancy.

The data corpus of Study 3 includes both generated data and naturally occurring data. The interviewed public servants include managers and lawyers at publicly owned companies, educational institutions, municipalities, government agencies and ministries. The interview topic guide was tailored for each procurement case based on the documents acquired prior to the interviews. As each procurement was unique in its purpose and scope, the discussions revolved around specific details in the procurements and their backgrounds and intentions. Table 23 shows an example of tailored topic guides that was used for an interview with public servant(s) at a municipality.

Table 23 An example of a tailored interview topic guide

Topic	Questions
<i>Background</i>	<p>What made you initiate the procurement of service design expertise?</p> <p>Why did you pursue a framework agreement, not a project procurement?</p> <p>Who funds the framework agreement?</p>
<i>Preparing procurement</i>	<p>Who were involved in creating the invitation to tender?</p> <p>How many (service) designers do you have in your organisation?</p> <p>What was the process like?</p>
<i>Assignment</i>	<p>In many cases, public procurement of design work requires submitting the portfolio of past projects. Instead, your invitation to tender is asking for a proposal for a fictitious event. What is the idea behind it?</p> <p>What was your expectation in creating such an assignment?</p> <p>Following up with the previous question, did you receive what you expected?</p> <p>How was the idea to receive the “creative” plan for the fictitious event conceived?</p> <p>Why did you blur the meaning of the “event” in your invitation-to-tender document? Why did you avoid answering the questions about the definition of event in your question-and-answer document?</p> <p>Why did the invitation to tender limit the submission for the plan to 3 pages?</p>
<i>Requirements for service design consultants</i>	<p>In your invitation to tender, the minimum requirement for designers was one year of experience and a bachelor’s degree from a university of applied sciences. What is the reason?</p> <p>The invitation to tender asks for the CVs of designers, and then requires that those should be working on the projects for your organisation. What is the reason?</p> <p>Following up with the previous question, will there be a bid to appoint two consultants (a responsible consultant and consultant) or can you appoint more experts?</p>
<i>Terms of procurement</i>	<p>Your invitation to tender says that it will follow the terms and conditions for buying services for general services in the public sector, which exclude digital and IT consulting services. Does this mean that you are not at all interested in buying consulting work for digital services?</p>

The invitation to tender shows some thousand Euros per project in the prospective framework agreement. What is the reason behind it?
Following up with the previous question, if your organisation would like to procure bigger projects, can you do that? How does (will) it happen?

Further, as discussed in the following section, the author sat in one of the offices of a leading service design consultancy for one to three days a week from April to December in 2017 (53 days in total), having informal discussions, participating in weekly meetings and internal seminars, and observing daily work in the consultancy. The observations were documented in the form of ethnographic field notes and photographs that were digitised at the end of each day. Table 24 shows all the generated data in Study 3.

Table 24 Generated data in Study 3 (originally presented as Table 2 in Paper 3B)

Items	Content
Interviews (26 in total)	13 interviews with 12 consultancy employees (incl. design directors, service design leads, senior service designers, junior service designer and management) 12 interviews with 14 public servants (incl. those in educational institutions, public companies, municipalities and design pilot programmes) One interview with a lawyer in a private law firm that specialises in public procurements One interview with an executive at a professional organisation
Email communications (five in total)	With two lawyers in public sector organisations that specialise in public procurement With two public servants that were involved in service design procurements
Field notes	44 pages of text (12 pt., spacing 1.5) Nine sketches and 15 photographs depicting the field situations

Naturally occurring data collected for Study 3 (Table 25) include publicly available documents from various websites and archives maintained by the Finnish government, such as regulation texts, public tender notifications, question-and-answer documents, decision documents, and the tender proposals from the consultancy. These documents served as the material for focused interviews and data triangulation (e.g., Thurmond, 2001).

Table 25 Naturally occurring data in Study 3 (originally presented as Table 2 in Paper 3B)

Items	Content	Translation
Legal documents	Act on Public Procurement and Concession Contracts (160 pages), English version by the Ministry of Economic Affairs and Employment General Terms of Public Procurement in Service Contracts (26 pages), English version by the Ministry of Finance.	None (used English versions)
Procurement-related documents (11 procurement cases in total)	Six public procurement notification-related documents incl. a large number of annexes, four decision documents and one question-and-answer document (332 pages in total) Three invitation-to-tender documents (57 pages in total)	Key documents were identified and translated (168 pages translated in total)
White papers	Finland of Solutions – mid-term review: Government Action Plan for 2017-2019 ¹⁷ by the Prime Minister's Office (72 pages) Impact Procurement ¹⁸ by the Finnish Innovation Fund Sitra (22 pages)	Key sections were identified and translated (resulting in 18 pages in total)

¹⁷ Original title in Finnish: Ratkaisujen Suomi – Puolivälin tarkistus: Hallituksen

¹⁸ Original title in Finnish: Vaikuttavuuden hankinta

	Effective Dialogue!: Guide to Successful Design Procurement ¹⁹ by Ornamo, a professional organisation for designers (78 pages)	
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An external firm transcribed all interviews. “Initial coding” was conducted for the ethnographic notes and the transcripts (Saldaña, 2013, pp. 100–105). In-vivo codes and key words were written on paper notes that summarise transcript segments. Then, three rounds of coding were conducted to form themes from discussions with public servants, discussions with the consultancy employees (designers and salespersons) and the ethnographic fieldnotes. The analysis was conducted through “second cycle coding” (Saldaña, 2013, pp. 207–212) in which the notes were re-categorised in iteration through the use of coding software.

Similarly to Study 1, discussion sessions were organised with the interviewees after the initial analysis. For the consultancy employees, two sessions were organised in May and June 2018. Over 10 employees participated, including those interviewed for this study and others interested in the topic. For public servants, individual discussions were arranged with five public servants since strict anonymity has been central to having frank discussions during the interviews. A summary of findings and exemplary quotes were electronically sent to five of them in February 2019 following maximum variation sampling (Marshall, 1996): in two municipalities, a government agency, a publicly-owned company and a ministry.

3.3.2 Potential methodological challenges and responses

As discussed in the previous section, Study 1 and 3 are methodologically similar. However, the methodological choices of Study 3 are different from those of Study 1 due to a number of challenges in exploring the nature of briefing in public procurements of service design. First, responsibilities for devising and delivering services are dispersed across different organisations in the public sector (e.g., McNabola et al., 2013, p. 6) and thus it can take a long time for these organisations to coordinate and negotiate before enacting a procurement. Therefore, it would be difficult to identify and access the appropriate people, time and place for data collection in public procurements for observation. Second, service design is a rapidly evolving field (e.g., Penin, 2018, p. 12), which makes it challenging to select relevant cases across numerous design procurements in the Finnish public sector. For instance, an IT procurement could include elements of service design although the work of designers in such projects may only concern digital user interfaces. Thus, blindly approaching all procurements that have the keywords “service design”²⁰ would have been problematic in answering the research questions of Study 3. Third, not all procurements are available for public viewing, as the law allows public entities in Finland to carry out procurements without publicly inviting tenderers when a procurement is below a certain monetary value or when it is under a framework agreement for the sake of efficiency. Finally, public procurement is a sensitive process for public servants, as communicating with any external party may potentially disclose certain information that could benefit some tenderers and undermine the contracting party’s impartiality during the process.

Study 3 addressed these challenges by identifying relevant procurement cases and interviewees in the public sector through a single service design consultancy. Unstructured observation was pursued (Mulhall, 2003) in one of the offices of the consultancy. This meant in practice that I only investigated those public procurements the consultancy tendered for and

¹⁹ Original title in Finnish: Vaikuttavaa vuoropuhelua!: Opas tulokselliseen muotoilu-hankintaan

²⁰ *Palvelu muotoilu* in Finnish.

interviewed those public servants involved in these cases (Figure 7). This approach enabled the types of service design projects and their professional contexts investigated in Study 3 to gain a degree of correspondence and comparability. For example, the service design consultancy did not tender for public procurements in the case of IT implementation even if it had some service design implications. Further, identifying procurement cases through a single consultancy enabled access to ongoing procurement cases, as well as those not available for public viewing. Finally, unstructured observation helped gain access to the past procurements and experiences of designers in the consultancy relevant to themes emerging from the analysis. For example, presentations about ongoing or recently finished projects sparked discussions about upcoming procurement cases in the weekly knowledge-sharing sessions.

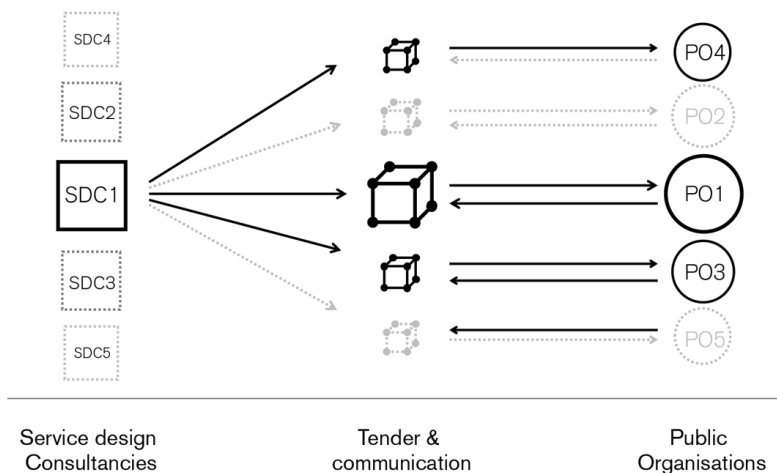


Figure 7 Procurement cases selection in Study 3

Serving as a lens for selective sampling (Coyne, 1997), the service design consultancy represents an archetype of emerging service design practices that have flourished over the last decade with public sector interests (Deserti & Rizzo, 2014, p. 88; Sangiorgi, 2015). With a commitment to “creating unique and successful customer experiences”, the consultancy positions itself as a firm that specialises in identifying opportunities and strategies from user insight for its clients rather than focusing on the implementation of technological solutions. At the time of data collection, the types of engagements with the public sector in the consultancy ranged from designing service interfaces to designing for strategies and organisational transformations (e.g., Mager & Alonso, 2017, p. 6; Penin, 2018, pp. 191–193; Sangiorgi, 2015). Having received several national and international awards, the consultancy employs a multinational staff of fewer than 100 employees in a couple of European cities as of May 2020. As discussed in the previous section, I sat in one of the offices of the consultancy regularly, interviewing service design consultants and making daily observations to contextualise their work.

This approach proved to be successful, helping identify procurements that were below the national threshold as well as those under a framework agreement the consultancy was part of, which would not have been possible otherwise. It also helped understand the real-life context of service design consulting, providing rich insight into daily operations and their business aspect, as will be further discussed in the next chapter.

4. Summary of studies

Enquiring into real-life briefing practices in design consulting prior to project commission, the studies of this dissertation uncover the nature and professional contexts of briefing prior to project commission, the challenges associated with the contexts, and if and how practitioners (can) adapt their briefing practices to mitigate these challenges (Table 26). The original research papers are appended at the end of the dissertation.

Table 26 Research questions of this dissertation and which studies address them

Research questions	Study 1	Study 2	Study 3
1. What does briefing entail before project commission in design consulting?			
How does it typically begin and unfold?	✓		✓
What sorts of impacts does briefing prior to project commission have for the work of design consultants during projects?	✓		✓
What information do design consultants find relevant when preparing an offer during the pre-project phase?		✓	
2. What role does clients' proficiency in using design play for briefing prior to project commission?			
2-1. What impact is it seen to have for briefing prior to project commission and the subsequent project?	✓	✓	✓
2-2. How is clients' proficiency in using design conceptualised by practitioners in briefing prior to project commission?	✓	✓	✓
2-3. How do design consultants prepare and carry out briefing differently according to the (perceived) degree of proficiency of clients in using design?		✓	
3. What are the potential challenges for briefing at the pre-project phase in design consulting?			
3-1. What are the main sources of such challenges (if any) as perceived by the practitioners?	✓	✓	✓
3-2. What do (can) design consultants (and their clients) do to mitigate or dissipate such challenges?	✓	✓	✓

Study 1 inductively and qualitatively investigates the professional context of briefing (and sales) in industrial design consulting in Finland. It shows how briefing unfolds in the real-life context (**RQ 1-1**) and shows that the early briefing and client's readiness for using design have an outsized impact on the actual project due to its contractual nature and the client's rigidity in budgeting (**RQ 1-2 & 2-1**). It also uncovers the challenges design consultants face due to the uncertainties involved for both design consultants and potential clients (**RQ 3-1**) and how they adapt their briefing practices to mitigate them to secure more project commissions and better project outcomes (**RQ 3-2**).

Through a Delphi-inspired expert inquiry (Linstone & Turoff, 2002), Study 2 hones in on one of the adapted briefing practices found from Study 1, *Customised Communication*, and provides 70 factors in six common categories to be considered when briefing with inexperienced and experienced clients at the pre-project phase (**RQ 1-3, 2-3 & 3-2**). In doing so, it finds that design consultants make efforts to assure their investments and describe (and explain) the

steps in the process to inexperienced clients. In contrast, for experienced clients, they tend to express their willingness to comply with the clients' processes and emphasise a certain expertise of the consultancy that fits the clients' expectations for specific input. The study also derives a more nuanced understanding about (and its impact on) clients' proficiency in briefing from the discussions with the experts about their common and varying professional contexts in terms of: national/industry domain, client domain, consultancy domain and project/relationship domain (RQ 2-2).

Study 3 explores briefing in public procurement of service design in the Finnish public sector. Similarly to Study 1, it unveils how briefing in public procurement typically begins (RQ 1-1) and finds that it involves even greater rigidity due to the legal and organisational requirements set for procurement procedures (RQ 1-3). It also finds that the clients' (public servants') readiness for using service design (RQ 2-2) could have impacts on the way a project is framed and scoped, and hence on the work of service design consultants in projects (RQ 1-2 & 2-1). Unlike in Study 1, Study 3 shows that service design consultants have little agency in adapting their briefing practices, as public procurement is often dictated by the legally required procedure based on the procurement value and the ways in which public servants interpret the legal requirements (RQ 3-2).

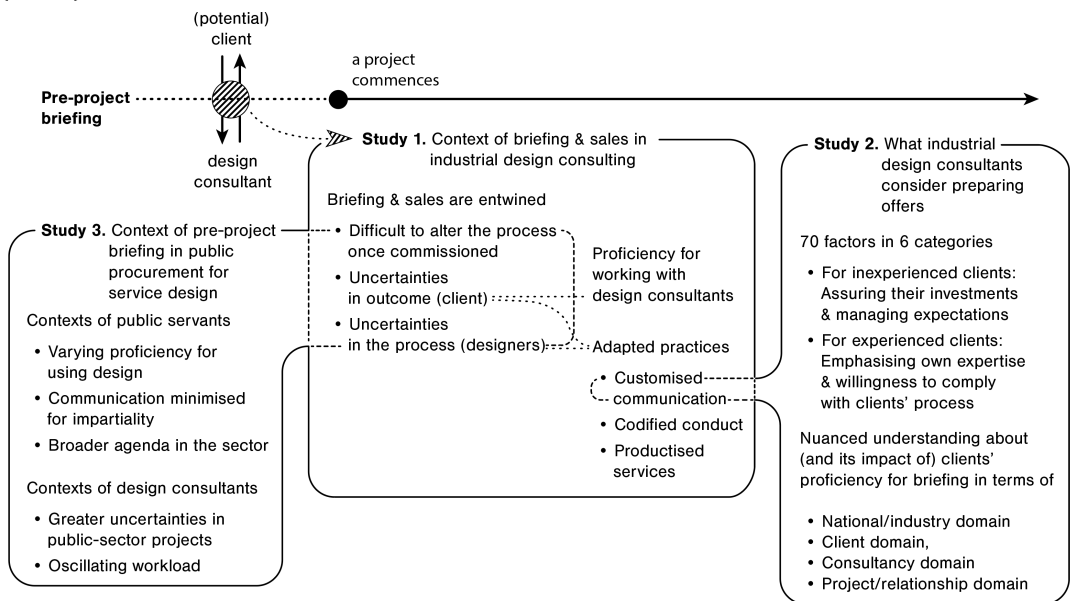


Figure 8 How the three studies are related to each other

The three papers in this dissertation are connected in their findings (Figure 8). Together, they provide a parsimonious description about what briefing at the pre-project phase entails in design consulting pertaining to the overarching research question of this dissertation (a more in-depth discussion can be found in Chapter 5). In the sections that follow, I summarise each study.

4.1 Study 1

Effective briefing practices at the pre-project phase remain a prime concern for design consultants in settling the scope and contents of their work for projects. As discussed earlier, due to

the lack of practical guidelines supported by empirical research, industrial design consultants are often left with basic guidelines for briefing that may not specifically be applied to the field they work in. Through an inductive thematic analysis of interviews with and documents collected from 19 industrial design consultants in Finland, Study 1 identifies the challenges associated with briefing at the pre-project phase, and how consultants mitigate these challenges by adapting their briefing and sales practices.

Though briefing is conceptualised as being iterative and continuous in the literature (e.g., Blyth & Worthington, 2001; Ryd, 2004a), the findings of Study 1 show that the entwinement between briefing and sales in design consulting produces a discontinuity in the briefing processes subsequent to a project commission. The formulation of a brief was seen as being critical by the consultants, as it affected the number of billable hours, as well as whether a client would commission a project. Further, the plan and predetermined time were described as not only directly influencing consultants' possibilities to succeed in projects, but also holding long-term implications, such as the likelihood of selling more projects in the future and thus building relationships with clients. Once accepted, the project plan in an offer was seen as fixed and difficult to alter, as it could affect the client's budgeting. The situation is complicated by how the consultants were disincentivised to allocate excessive resources for briefing during the pre-project phase as they had no guarantee of securing commissions.

During the briefing at the pre-project phase, however, the consultants faced uncertainties due to the nature of design consulting where designers are asked to create things that do not exist yet, as well as unexpected changes during the course of a project that are often outside the control of designers. Due to these uncertainties, the scope and phases of a project were often subject to revisions, which raised challenges in delineating the entire project plan in detail upfront with a potential client. Further, the negotiations on the scope and phases with clients were invariably influenced by the clients' experience, knowledge and capabilities in using design, as well as their willingness to venture into the unknown.

The consultants adapted their practices for briefing and sales to bridge uncertainties in design projects for, and to enhance the interactions with, potential clients in the pre-project phase. Three such "adapted practices" were discerned: (1) customised communication, (2) codified conducts and (3) productised services. *Customised Communication* entails adapting discussions to meet the proficiency of a client in using design and reducing uncertainties by helping clients understand what they are about to procure. *Codified Conduct* systematises the consultants' interaction with potential clients with the aid of visual and textual material, which could take the form of a simple checklist or a more structured workshop. *Productised Services* circumvent some of the uncertainties inherent in the briefing and sales process by segmenting the consultants' work and making it more "product-like". Clients can purchase these low-cost products with ease, while designers can learn more about the clients' contexts while delivering discrete, pre-set outcomes. The adapted practices were often discussed by the interviewees as being slightly more sales- or project-oriented (Table 27). The three practices for briefing and sales uncovered in the reports of the consultants represent a practical response to the above challenges by showcasing how the interviewed practitioners manage the evolving nature of design problems within the professional context of design consulting. The practices thereby exemplify the rationale of iterative briefing and the necessity of co-evolution of problem and solution spaces widely accepted in design and briefing literature (e.g., Blyth & Worthington, 2001; Cross, 2007; Dorst & Cross, 2001; Phillips, 2004; Ryd, 2004b).

Table 27 Focuses and orientations of adapted practices (originally presented as Table 2 in Paper 1)

Adapted practice	Focus	Sales orientation	Project orientation
Customised communication	Adapt discussion to meet the expertise of a client with little experience and knowledge about design at the time of briefing and selling "Translate" the information from a potential client into implications for design work in face-to-face meetings Reduce uncertainties by helping clients understand what they are procuring	Primary	Secondary
Codified conducts	Foresee and prevent pricey changes in later phases Identify various topics from across relevant functions of a client organisation and synthesise them	Secondary	Primary
Productised services	Alleviate the burden of uncertainties by lowering the threshold for clients to start using design Make the procurement and briefing process more tangible for clients by segmenting and offering only a certain phase of the design process Allow consultants to evolve the problem and solution space with clients	Balancing	

The findings of Study 1 can be useful for educators and novice designers alike, as they facilitate understanding the premises of initiating projects with potential clients, such as discontinuity in briefing once a project is commissioned and the inherent uncertainties later in projects. Also, design consultants can use the adapted practices as a benchmark to evaluate their briefing and sales practices and as a boilerplate to strategically codify their practices.

4.2 Study 2

Extending the practice of *Customised Communication* discerned in Study 1, Study 2 enquires into what industrial design consultants consider during briefing at the pre-project phase, and what they emphasise in the resulting brief (offer) documents for inexperienced and experienced clients. Study 2 adapted the Delphi method (e.g., Linstone & Turoff, 2002) in order to uncover relevant factors and reach a consensus on their relative importance in a well-articulated and stepwise manner. Through a two-stage anonymous and iterative process together with the experts, 70 factors were discerned in six categories of interest: Project Objectives (12 factors), Project Plan (18), Collaboration and Coordination (5), Fees (6), Clients' Readiness for Using Design (17) and Competition (12). The factors include not only practical information such as technical specifications or the types of deliverables at each project phase, but also meta-level activities of briefing in its social context, including how to build trust to pursue a more iterative project. The full set of factors can be found in the appended original article.

By contextualising these factors through continuous discussions with the expert panel, Study 2 unveils that design consultants make a multitude of considerations when preparing offers, while balancing distinct challenges and opportunities in tailoring their offers to clients' experience, knowledge and organisational structures for design. Further, it also suggests that different business logics are at play when design consultants create offers for inexperienced/experienced clients, which has a bearing on their briefing practices prior to project commission. In short, design consultants tend to play a more educative and supportive role for inexperienced clients. As such clients generally lack a basic understanding about design, consultants

often need to make efforts to concretise the expected outcomes using more understandable language. Further, there is a heightened need for consultants to articulate the value of design while also emphasising the limitations of a project for such clients, all of which entails additional (unpaid) work. That said, without formalised structures for using and managing design, inexperienced clients were discussed as allowing more freedom for designers' work and greater possibilities for further commissions and building long-lasting relationships. To this end, serving inexperienced clients was discussed in many instances as an important business opportunity for consultants. Conversely, design consultants seem to play more assistive roles for experienced clients. As such clients have more in-depth knowledge and developed structures for managing design, design consultants make efforts to display an understanding of the clients' specific requirements and willingness to comply with clients' processes to stand out from the competition. Justifying and defending the resulting fees, while also understanding the position of their consultancy within the broader network of providers for a client, also emerges as an important aspect in securing commissions from experienced clients. Consequently, design consultants often function as an extended resource for experienced clients and reap the benefits that follow from such a position.

The richness of the topics captured in the factors highlights the varied and complex nature of briefing in industrial design consulting found in Study 1. While evaluating the relevance of the factors for inexperienced and experienced clients during the second stage, a number of the experts stressed that offer-making can often be project- and client-specific and thus a client's proficiency in using design should not be addressed in isolation but with a multitude of considerations. Further, commenting on the scope of the categories, the experts recurrently conditioned and situated their reasoning and assessments based on their varied professional experiences and the business context of their consultancies. By analysing these conditional and situational aspects of their comments from the second stage, Study 2 also discerns four situational domains that pertain to the national/industry context for industrial design consulting in Finland, the types of clients the experts have experiences with, the scope and organisation of the experts' consultancy businesses, and the types of projects and relationships they pursued and valued with clients.

The "National and Industry domain" includes the standing of industrial design within Finnish industry, the degree and structure of competition among consultancies, and the organisation of tendering processes. This domain provided a foundation for the experts in describing their (shared) reality for offer-making practices. For example, hourly-based pricing emerged as a norm for design consulting in Finland, which is also reflected in the discerned factors, as well as in the reasoning of the experts in justifying the fees in the offers.

The experts' reasoning on the factors was also grounded in the "Client domain", which pertains to the type of clients they had experience serving, as well as how experience (or lack thereof) typically manifested itself among those clients. Most notably, clients' experience was often both explicitly and implicitly associated with the size of a company: larger companies are more experienced, boasting relevant expertise and resources, while smaller ones are less experienced, without much resources. This is also visible in the heightened need to comply with the processes and requirements of experienced clients (large firms), as such clients often were described as having more established processes for buying and managing design and more negotiation power throughout procurement processes.

Closely linked to the discussion on the client domain, the "Consultancy domain" pertains to the relevance of the factors against the context of a consultancy, including its size, reputation

and (marketed) expertise. For example, the importance the experts placed on educating clients about specific design activities, such as concept design or user involvement, and the value of design more generally, seemed in part related to whether they worked with business-to-business companies or business-to-consumer companies, as the latter were typically depicted as being more knowledgeable about design.

Finally, the “Project/Relationship domain” pertains to either project characteristics (such as the scope, complexity and length) or the prior project engagements that built a degree of trust between consultants and their clients. Projects with broader scope and greater complexity were discussed as requiring more attention, while urgent projects were discussed as incurring higher fees. The experts also discussed how the difficulties induced by creating offers for new clients (versus old ones) can be greater than that for inexperienced clients (versus experienced ones). Further, the experts also noted that this effect is typically on a personal level, and thus a sudden change of client personnel can mean the termination of a relationship with that client firm.

To this end, the findings of Study 2 shed light on how the consultants prepare briefing differently according to the (perceived) proficiency of potential clients in using design. Further, it also uncovers a nuanced and situational understanding about briefing prior to project commission. In doing so, it provides an actionable, yet reflective checklist for specific briefing situations with empirical grounds in the real-life context of industrial design consultants. Educators can use these findings to help students to prepare for the early years of their career. Practicing design consultants can use the categories and factors as checklists in initiating projects with (potential) clients, reflecting upon the situational considerations.

4.3 Study 3

Design is increasingly pursued as a means of renewing public services and organisations. During the past decade in Europe, service design consultancies focusing on public sector projects have flourished, while more established consultancies have added “public sector” to their range of expertise. In Finland, public organisations have been procuring service design work since the early 2010s, and the demand is expected to grow in the coming years (Boman-Björkell et al., 2016). However, the extant literature provides few guidelines on briefing for practitioners that operate in young and emerging fields of design, such as service design.

Through an inductive thematic analysis of interviews, ethnographic observations and documents, this study maps out key phases of briefing in service design procurement in the Finnish public sector. Through discussions with both public servants and service design consultants, the study recognises public procurement as briefing in its own right and elucidates the complexities involved in the process. The analysis reveals that briefing in public procurements of service design projects and expertise can be characterised as being: principally structured by the legal requirement for fair treatment of all tenderers, unfolding in phases that are predetermined by public organisations and often lacking early and sufficient dialogue between the client organisation and consultancies.

As discussed in Chapter 3, Study 3 produced two articles: a conference article (Paper 3A) and a journal article (Paper 3B). With the majority of data overlapping, Papers 3A and 3B share a key finding in terms of how public procurement can be seen as a briefing process when service design is procured (Finding 1 in Table 28). That said, Paper 3B provides a more detailed account with examples of various forms of service design procurements, as well as the key steps of briefing in public procurement. There are also findings that are discerned only in Paper 3A

and 3B, respectively (from Findings 3 to 7 in Table 28). These differences occurred because Paper 3A is a positioning paper that reports on an initial analysis of a few cases against the backdrop of extant literature, while Paper 3B inductively and thematically analyses the full data corpus, making use of richness and nuances. The description that follows focuses on summarising the findings used in Paper 3B, as it contains a fuller picture of Study 3.

Table 28 Findings of Paper 3A and Paper 3B

	Paper 3A	Paper 3B
Type	Positioning paper: public procurement as briefing prior to project commission	Thematic analysis: context of briefing in public procurements of service design
Finding 1	Threshold values and their implications Briefing as an integral part of public procurement practices	Characteristics of briefing in public procurement of service design Legal requirements for public procurements of service design Various forms of service design procurements Key steps of briefing in public procurements of service design
Finding 2	Proficiency of public sector clients in using service design	Varying degrees of proficiency in different public organisations for using service design
Finding 3	Use of the tacit knowledge of designers	–
Finding 4	–	Service design efforts bundled in broader agendas in the Finnish public sector
Finding 5	–	Minimised communication with tenderers for impartiality
Finding 6	–	Uncertainties and inflexibility in working with public sector clients
Finding 7	–	Fluctuation and unpredictability in project commissions in service design consultancies

The findings of Study 3 share commonalities with those of Study 1 and 2, but they also unveil unique challenges specific to service design consulting and/or the context of public sector projects. Similarly to Study 1, changing the course of a project subsequent to the commission was seldom possible due to the inflexible scope predetermined by the public servants and procedures legally required for higher procurement value. These challenges resemble the inherent uncertainties and the rigidity in clients' budgeting found in Study 1. Further, public organisations in Finland hold varying degrees of proficiency in utilising service design, presenting challenges to public servants in tailoring the details involved and estimating an appropriate scope (budget) in preparing procurements for service design. These challenges resonate with the clients' readiness in Study 1 and 2, as well as earlier discussions on how client companies need to build capabilities and strategies to fully utilise the expertise of design consultants (e.g., Best et al., 2010; Ramlau & Melander, 2004; von Stamm, 1998). This was complicated by the peculiarities of service design and public sector projects, which typically involve a large number of stakeholders and users throughout the design process.

The reasons why design consultants may lack insight into the background of potential projects and client organisations differ greatly in Papers 1 and 3. In the commercial sector, such challenges occur either if clients do not understand the need to provide the design consultants with comprehensive information (Study 1) or when they intentionally do not fully share proprietary information before project commission (e.g., Bruce & Morris, 1998a, p. 43; Hakatie & Rynnänen, 2007, pp. 42–44). In the Finnish public sector, such a challenge arises because the law requires public organisations to treat all contenders equally, though in principle it also provides ample freedom for tailoring each procurement for specific needs. As it is challenging

to directly discuss a potential project with each and every contender all over the nation, public servants often minimised communication with tenderers in the pursuit of impartiality and practicality, such as by issuing a single question-and-answer document (Figure 9).

- Always present
- Sometimes present

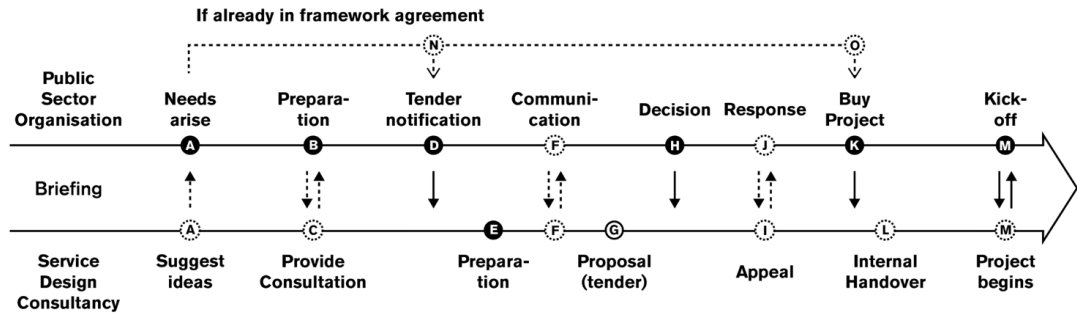


Figure 9 Briefing in public procurements of service design (originally presented as Figure 2 in Paper 3B)

Unlike the purchasing process outlined in Study 1, the procurement process for designers’ work in the public sector is more rigid, and represents a lack of iterative and continuous discussion between the client and consultants. Once the needs have been internally identified in preparing procurements (A–B in Figure 9), the procuring organisation may conduct “market consultation” to explore their options (C). According to the expected procurement value, they can either pinpoint a few contenders and ask for offers (if the value is lower than the threshold) or initiate a tender competition (if higher) on the national procurement notification website (D). Providers, such as design consultancies, obtain some basic understanding about the needs largely through the notification text, its annexes and question-and-answer documents, and if willing they join the tender by submitting an offer (E–G). When the procurement decision is made, the procuring organisation announces it on the website (H), on which the contenders can appeal to the market court if the process is deemed unjust (L). The procurer may formalise the decision once any disputes have been resolved (K). In the meantime, the winning contender may carry out the internal handover from the consultant who made the offer to the one who will actually work on the project (L). If (and when) a procurer utilises a framework agreement, the process of procuring a single project may be streamlined through a direct procurement (O) or a “mini-tender” that only applies to a few providers that are already under the agreement (N).

The situation is complicated by how service design efforts were often bundled in broader agendas and how a top-down managerial practice prevailed as a way to create the required budget and organise procurements in the public sector. This phenomenon sometimes led to framework agreements with a limited scope for direct procurements (e.g., five thousand euros), limiting the opportunities of service design consultants to involve users in the design process. This poses challenges for service design consulting practice, as involving users into the design process is often seen as the primary benefit of engaging with service design expertise (e.g., Polaine et al., 2013; Stickdorn & Schneider, 2010).

Though not found in Study 1, the annual fluctuation of project commissions found in Study 3 seems relevant for any design consultancies. Through participatory observation and interviews with the employees of a design consultancy, Study 3 reveals that project commissions were heavily concentrated in certain periods of each year, while the designers had insufficient

work during the rest (Figure 10). Facing annual fluctuation in project commissions, design consultants were tasked with little work during certain periods of the year, while being overwhelmed with many projects at the same time during others.

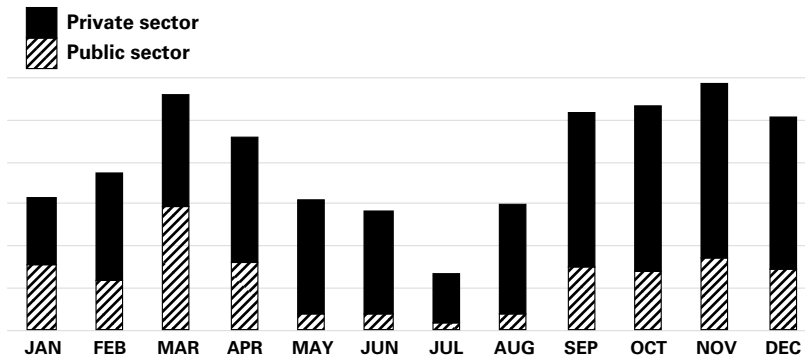


Figure 10 Relative volume of workload in the consultancy for each month in one of the recent years (Stacked Column, originally presented as Figure 3 in Paper 3B)

The study discerns a few practical responses for more proactive briefing in public procurement of service design from the ways in which the challenges were perceived and/or acted upon by those who were involved in public procurements. First, early and continuous dialogues with external experts and suppliers might help mitigate the challenges in tailoring forms and details of service design procurements. In the same vein, it might be fruitful to phase the selection process and pursue face-to-face discussion with those few contenders who pass the initial screening. Second, public sector clients may gain the benefits of a long-term client-designer relationship by procuring a framework agreement with a small number of service design consultancies for a lengthier period. Finally, public organisations could gain better value out of their investments by targeting the low seasons of design consultancies for project procurements and/or commencements. These practical responses all concern alternative procurement practices pursued by public sector organisations. This is because the process of briefing in service design procurement is largely shaped by legal requirements and predetermined by public servants, and therefore design consultants hold little agency in changing them.

5. Cross-cutting contributions

In the context of design consulting, the client may begin the briefing process by creating the client brief as a part of a request for proposal (RFP) in various forms – a document, a presentation or just a phone call. Design consultants may also initiate the sales discussion with prospective clients through introduction or cold calling. In any case, design consultants carry out initial briefing, acquiring relevant information from the potential client, settle the project scope and detail the phases, and negotiate deliverables for each phase (Morrison et al., 2011; Paton & Dorst, 2011; Phillips, 2004). The resulting brief is typically presented as a part of an offer with a quotation to the potential client (e.g., Morrison et al., 2011). If/when a project is commissioned based on the initial brief, design consultants and the client manage emergent changes and negotiate the deliverables and evaluate final outcomes accordingly (e.g., Blyth & Worthington, 2001; Haug, 2015; Phillips, 2004; Ryd, 2004b).

By enquiring into real-life design consulting practices, this dissertation uncovers the core contexts of briefing at the pre-project phase, such as securing project commissions, the client's proficiency in using design and uncertainties for both clients and design consultants (Study 1 & 3). It also discerns the practical responses of practitioners in preventing and mitigating the challenges they face when briefing prior to project commissions from design consultants' and public sector clients' perspectives (Study 1 & 2). While discerning the information that design consultants seek when preparing offers aligned with clients' degree of experience, the dissertation also sheds light on the nuanced understanding of the situational aspects of clients' experience and its impact on briefing (Study 2). In the light of these contexts and practical responses, this dissertation extends the research attention on briefing from *cognitive* problem identification (e.g., Dorst & Cross, 2001; Getzels, 1975) and framing (e.g., Paton & Dorst, 2011; Schön, 1995) towards broader *social* engagements between design consultants with their (potential) clients.

Together, the three studies respond to the overarching research question of this dissertation: What does briefing before project commission entail in design consulting? Although the majority of the design consultants interviewed for this dissertation considered these social and business aspects of briefing prior to project commission as crucial considerations for their work, the extant literature on briefing rarely identifies and/or discusses them. The findings of this dissertation show that briefing at the pre-project phase represents a critical moment for design consultants, as it predetermines not only whether a project would be commissioned but also the scope and resources allocated for a potential project. As effective briefing at this phase forms a prerequisite for the success of project outcomes, it often becomes a basis for (possible) future projects, and hence a critical building block for sustained relationships with clients and the long-term survival of a consultancy.

As discussed earlier, scant research attention has been given to briefing in design consulting outside architecture and construction, and there have been few practical guidelines for briefing

in industrial design and service design. In extending the notion of briefing towards broader social and business practices and providing recommendations for practitioners, the cross-cutting contributions of this articles-based dissertation extend to five areas: (1) The gist of briefing at the pre-project phase in design consulting; (2) Differences between industrial design and service design for briefing at the pre-project phase; (3) Contributing to discussions about clients' design capability by discerning nuanced themes in the design consulting context; (4) Identifying enablers and barriers for effective briefing at the pre-project phase in design consulting; and finally (5) Adding to practical guidelines with empirically grounded findings.

5.1 The gist of briefing at the pre-project phase in design consulting

As stated, a review of the literature on briefing in design reveals that studies have largely been carried out in architecture and its adjacent fields. Taken together, a large share of studies that are related to briefing have been dedicated to understanding and/or describing briefing during projects as a part of the design process. For example, Sterry and Sutrisna analysed three building projects to understand how secondary stakeholders are involved in the design process (2007). Through a case study of a major building project for the Danish Broadcasting Corporation, Jensen explored briefing processes and methods for user involvement (2011). McDonnel and Lloyd examined how architects communicate and negotiate with clients about the ways in which buildings will be experienced by users (2014). Underpinning the results of such studies is that briefing during projects consists of communication and negotiation that requires tools (e.g., brief documents), methods (e.g., for stakeholder involvement) and expert skills of architects (e.g., how to formulate the brief, how to negotiate with clients throughout the project). Studies also discerned useful typologies of different aspects of briefing. For instance, Bogers, Meel & Voordt have attempted to discern the types of information that architects find relevant in a client brief through interviews (2008). Paton and Dorst identified four types of frame communication and adaptation strategies and the corresponding roles visual design consultants play (2011). Haug sought to elicit patterns of client requirements and associated challenges in communication (2015). Scholars have also postulated new briefing methods for improved outcomes. For example, Luck, Haenlein and Bright proposed a novel briefing approach through end-user representation for more accessible building designs (2001). Yu et al. proposed value management as a formal method for assessing clients' needs and requirements (2006). Thyssen et al. postulated a novel workshop model based on value management literature and lean thinking (2010). Dankle proposed an ethnographic method to be used for more experience-driven briefs for inclusive design and applied art (2013).

However, studies that explore briefing prior to project commission are few, and those that explore the real-life practices of design consultants outside architecture are rare. Given the scant literature on briefing on design consulting outside architecture, and in an attempt to provide a foundation for future work, this dissertation looks into the nature of briefing prior to project commission through three inductive studies in industrial design consulting and service design consulting. The findings of this dissertation show that briefing at the pre-project phase is a critical moment for design consultants in sustaining their businesses, as it may determine not only the possibility to get the project commission in the near future, but also the chance to succeed in the resulting project due to the discontinuity before and after a project commission. This is because the scope and tasks configured during this phase (hence the quotation) form the basis for design consultants' offer to potential clients. Provided that the project fees are

mostly based upon day rates and time to be spent on tasks in Finland and that clients cannot easily increase the project budget once a project is commissioned, the brief in the offer is more or less fixed for design consultants, as Bruce and Morris deemed it to be (1998a, p. 56).

Moreover, this dissertation uncovers the challenges for design consultants in briefing at the pre-project phases. Earlier studies have identified how clients often avoid sharing proprietary information before a project is commissioned and how design consultants thus need to create a project plan based on partial insights into the project context and client organisation (e.g., Bruce & Morris, 1998a, p. 43; Hakatie & Rynnänen, 2007, pp. 42–44). As discussed earlier, the findings of this dissertation uncover “uncertainty” as a key reason for such insufficient insight in creating an offer (Figure 11). According to the design consultants interviewed for this dissertation, clients try to avoid uncertainties, and often demand to see the full process and have a final say on detailed tasks. The consultants were disincentivised from allocating substantial resources to briefing at the pre-project phase, as there is uncertainty (i.e., no guarantee) around securing commissions. Yet, they need to make multifaceted considerations regarding the design process and its outcome, including how to form a project plan that is appealing to the client yet sensible for positive results; what the potential outcome shall be to make a successful offer; what other projects are overlapping with the supposed timeline; and which design consultants will work on the project if/when the project is commissioned. They also need to make business-critical considerations, such as whether it is worth their time to make the offer and whether there is a chance for this potential project to lead to a long-term project contract and/or a long-term relationship with the potential client.

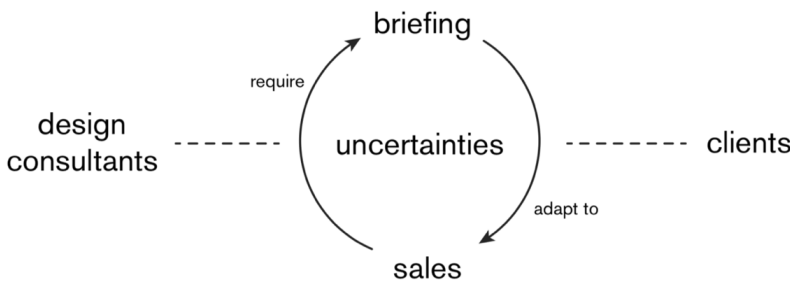


Figure 11 The gist of briefing prior to project commission (originally presented as Figure 1 in Study 1)

As a result, design consultants are pressed to predict the full scope of a project and related details to the greatest extent possible within the limited time and resources they are willing to invest without a guarantee that the project will be commissioned. Therefore, briefing prior to project commission in design consulting can be defined as typically being linear, in which design consultants’ (initial) project planning informs an offer as a part of the sales effort while making multifaceted considerations. However, this definition does not reject the iterative and dynamic notion of briefing that has been often postulated and normalised in design literature, as the *adapted practices* found in Study 1 and the proactive procurement cases discussed in Study 3 exemplify how practitioners pursue iterative briefing despite the said challenges. Instead, it reaffirms and contextualises the iterative and dynamic notion of briefing to the specific milieu of briefing before project commission in design consulting, where design consultants navigate through uncertainty while briefing and selling simultaneously. Based on the analysis of the three studies, this definition seems to hold for both industrial design consulting and service design consulting and for clients in both the commercial and public sector – and potentially in other disciplinary and national contexts.

The findings of this dissertation also show how the proficiency of clients in using design is perceived by design consultants, and how it is seen to influence briefing at the pre-project phase and the resulting projects. Design management literature discusses how client firms show varying degrees of proficiency in working with (external) designers, which influences their level of ambition and commitment, as well as their competence in communication and coordination (e.g., Micheli, 2014; Ramlau & Melander, 2004; von Stamm, 1998). For instance, it has been pointed out that the lack of clarity in an initial request for proposal from a client is one of the major challenges for effective design work (e.g., Boyle, 2003; Phillips, 2004; Ravasi & Stigliani, 2011). The findings of this dissertation add to the literature by shedding light on how initial briefings with clients with little experience are typically seen to entail more briefing work for consultants because such clients are less able to envision what the outcome would be and how design is relevant for different functions of their firm. What is more, the findings show that clients with lower proficiency were also seen to find uncertainty in projects more troubling and are thus prone to opt for projects that are geared towards more straightforward outcomes. In contrast, more proficient clients were discussed as having clearer ideas on how to use the input from design consultants, often in tandem with their own team (or department) and product development process.

Expectedly, the challenges in briefing outlined above could be more pronounced for (service) design consultants when creating offers for public sector clients, which adds depth to prior studies on the procurement of design in the public sector. Markensten and Artman noted that human-computer interaction professionals are often involved too late and have little authority to influence the project requirements (2004), while Holmlid considered that a more proactive role and enhanced competence of procurers are prerequisites for better project outcomes (2004). Participating in public sector procurements as a usability expert, Markensten found that public organisations often lack the skillset and expertise to define user needs clearly (2005). According to the findings of the study, they prematurely jump from business goals to procurement without clearly defining user needs, which is found to be the frequent culprit behind poor procurement and project outcomes (Markensten, 2005). Further, Lantz and Holmlid (2010) noted the negative impact of organisational silos, which causes knowledge asymmetry between design experts (who understand the user needs) and business department (who make crucial procurement decisions). The findings of this dissertation reveal a similar pattern, as the law largely regulates the process of communication and offering in the public sector, and the procedure is fully predetermined by public servants that are in charge of overseeing a tender. In the context of public procurement, I found that the communication is often limited to emailed questions submitted by contenders and answers released by public servants as a document on the procurement website. In this process, design consultants are often not allowed to request face-to-face discussions unless this was already planned by the public servants ahead of time. This makes it challenging for the public servants to understand clear objectives and explore possible directions collaboratively with the (potential) client before a tender is finished. The situation is complicated by the fact that service design is still a relatively poorly understood profession within the Finnish public sector, as found in Study 3.

This dissertation also adds to the literature on briefing in design by uncovering how design consultants in both industrial design and service design adapt their briefing practices prior to project commission in the pursuit of mitigating the challenges induced by the uncertainties and the varying degrees of proficiency of (potential) clients. Markensten and Artman explored the use of personas and prototypes to help a procuring organisation to better derive and

prioritise project requirements in the context of IT procurement (2004). Exploring challenges in the public procurement of digital service systems, Markensten questions the notion that the responsibility for improving usability lies in the supplier's expertise, argues for a more proactive role of the procuring organisation, and postulates a two-step process (at minimum): the first for defining what to procure and the second for developing the solution (2005). Industrial design consultants *customised* their communication to align it with each client's degree of experience, codified their initial discussions with potential clients, and productised the initial steps of the design process to bridge the uncertainties for clients and for themselves (Study 1). Service design consultants also productised their work to mitigate the uncertainties (Study 3). However, these adapted practices could rarely be offered to public sector clients, as procurement can only be carried out in the ways that are predetermined by the public servant in charge of the tender. To this end, analogous to the call for the "pro-active procurer" (Holmlid, 2004), I argue that the clients' active and proactive attitude towards a more iterative and communicative process is essential for more effective briefing prior to project commission, especially in public procurement, given the limitations imposed on communication due to (perceived) legal requirements.

5.2 Differences between industrial design and service design for briefing at the pre-project phase

Design disciplines differ from one another in various aspects, such as their artefacts, tools, knowledge, process and involvements (Visser, 2009), as well as how knowledge and skills are appreciated in each field (Carvalho et al., 2009, p. 499). Values of products are seen to reside in the products themselves and can thus be stored and shipped to the customers (Vargo & Lusch, 2008), whereas values in services are created simultaneously while a service is being provided to the customers (e.g., Easingwood, 1986). Therefore, involving various stakeholders, such as front-line workers, is generally seen to be beneficial (e.g., de Brentani, 1991) or even essential in designing services (e.g., Polaine et al., 2013). These differences are confirmed by the findings of this dissertation, as the industrial design consultants and service design consultants highlighted different concerns for effective briefing from one another, especially with respect to the aspect of project planning.

First, industrial design consultants and service design consultants had significantly different considerations for the involvement of clients and stakeholders during initial briefing and the uncertainties induced by it. During the interviews with the industrial design consultants during Study 1, little was discussed in terms of stakeholders in the design process. This is evident in the studies of the industrial design process where stakeholders are mentioned in passing, but not as central to the process (e.g., Berends et al., 2011). Further, client personnel could be involved in the process, but typically in carrying out a specific task, such as an ideation session, and users in observation and/or usability tests. Many of the industrial design consultants discussed how they consider interfacing their project outcome with the next steps of the product development process for clients (e.g., from finalised product design to mechanical engineering, or to manufacturing). Unless a client has very limited understanding of product development, however, the consideration of interfacing was not discussed as inducing further uncertainty in project planning. As evident in Table 29, the industrial design consultants interviewed for Study 1 discussed changes that could occur due to contingent requests by clients or new decisions. They also discussed industrial design-specific changes, such as unanticipated challenges

in production and sourcing or emerging production methods. “New insight from fieldwork” was mentioned as one source, but not the organisation of fieldwork or the participation of stakeholders themselves. This resonates with the ways in which clients’ requests and requirements are discussed in Haug (2015). In analysing the patterns of changing and emerging requirements of clients, the roles of clients are designated not as partners in collaborative design, but rather as a source of information or key decisions (Haug, 2015).

Table 29 Sources of change (excerpts from Appendix 5 in Paper 1 and from Paper 3 pp. 20-21)

Industrial design (Study 1)	Quote (brackets added by the authors)	Relevant concepts in literature
Contingent request from clients	Many times it’s hard to identify the shift of focus until one week or two weeks in because we are very flexible and the client will tell us, “well why don’t we study this?” and we’ll go, “okay let’s study that”, and we notice after a little bit of time that, “okay this is not something that we agreed financially” so we need to go back and say, “okay now we are two weeks in doing this stuff, we need to do something about that” (Consultant_J).	Unknown requirements 1. Product aspects that the client has not yet considered (Haug, 2015, p. 59)
Client’s new decision	I worked in a project where we had to design a computer housing inside an operator cabin for a machine and I think we worked for at least half a year or even more and then the client just figured out that we don’t want to do this ourselves; we buy components from another party (Consultant_L).	Unknown requirements 5. Product aspects that the client is unable to decide on (Haug, 2015, p. 59)
New insight from fieldwork	We have to study the work environment, what’s happening there, who is doing what and why, what might be the problems we could solve now. That’s important to know, and to get the experts’ view how they see today what’s happening there. (Consultant_R).	Unknown requirements 1. Product aspects that the client has not yet considered (Haug, 2015, p. 59)
Unanticipated difficulties in production and sourcing	They try to use some kind of components, but the price is too high so they must change them and do it another way (Consultant_P).	Redefined known requirements 3. Discovery of external design issues (Haug, 2015, p. 61)
Changes in the market, technology or compatible platform	The world is changing so rapidly so if you have a long project something might happen, the competitor might launch a different kind of product and then you have to act quickly (Consultant_M).	Redefined known requirements 3. Discovery of external design issues (Haug, 2015, p. 61)
Emerging production methods and newly available material	You have to adjust when you find some new possibilities and when we are working as deeply involved in the project as possible, we can find some new ways that our client doesn’t know and we have more information on the possibilities concerning design like new production methods and materials (Consultant_K).	Redefined known requirements 4. Discovery of unforeseen design possibilities (Haug, 2015, p. 61)
Service design (Study 3)	Excerpts (brackets added by the author)	Relevant concepts in literature
Progressively increasing number of stakeholders to be involved	Consultancy employee remarked that in the public sector there is a “culture that you don’t step on somebody’s toes” (Consultancy_employee_E). The number of relevant stakeholders could grow throughout projects, as clients wanted to ensure that “voices are heard” (Consultancy_employee_G), and timely design decisions could be hindered when “important people don’t have time to participate” in workshops (Consultancy_employee_E).	Multi-party system consisting of various stakeholders (Warland & Mayer, 2017, p. 114)

Quality of client’s material and/or their participation in the design process	Consultancy to build upon material they (clients) had already produced, such as interview transcripts, or decided to perform some of the tasks themselves (Public_servant_A & M, Consultancy_employee_J). However, service design consultants found it difficult to anticipate the quality and relevance of such materials and/or the competency of the public servants for carrying out such tasks prior to kick-off (Consultancy_employee_J).	–
Inherent uncertainty in the service design process	The nature of our projects is not always very clear in the beginning. So, we have a process we follow, but then we also learn, while we are doing something, and then we make decisions, like, “Ah, this would be good to do, and this would be the right way.” And, you know, how the workshops go defines our next stage, even though we have a hypothesis in the beginning, what we’re going to do, it changes. (Consultancy_employee_D)	–

In contrast, service design consultants interviewed for Study 3 discussed how the involvement of the client’s personnel and stakeholders in the design process can be a source of uncertainty when planning and executing a service design project. As evident in Table 29, the number of relevant stakeholders was sometimes described as increasing throughout a project, as the client wishes to make sure that everyone feels that they are heard. Expressed as a “multi-party system”, a similar phenomenon can be found in a study of IT system procurements in Switzerland (Warland & Mayer, 2017, p. 114), which indicates that this could be a common characteristic of serving public sector clients. Further, it was found that the service design consultants interviewed in Study 3 often expected that the client’s personnel would join in the design process for customer-facing activities, participating as co-workers, such as by interviewing stakeholders and taking part in co-design workshops. Similarly, practical guidelines for service design frequently account for the involvement of client personnel as an essential part of the design process, in part to familiarise them with the service design process and the importance of empathy in it (e.g., Penin, 2018; Polaine et al., 2013). Study 3 finds that, as the budget is tight in public sector projects and thus the work done by the client’s personnel provides a significant part of user insight, the proficiency of the client’s personnel (public servants) in joining the effort could often pose a source of uncertainty for service design consultants (Figure 12).

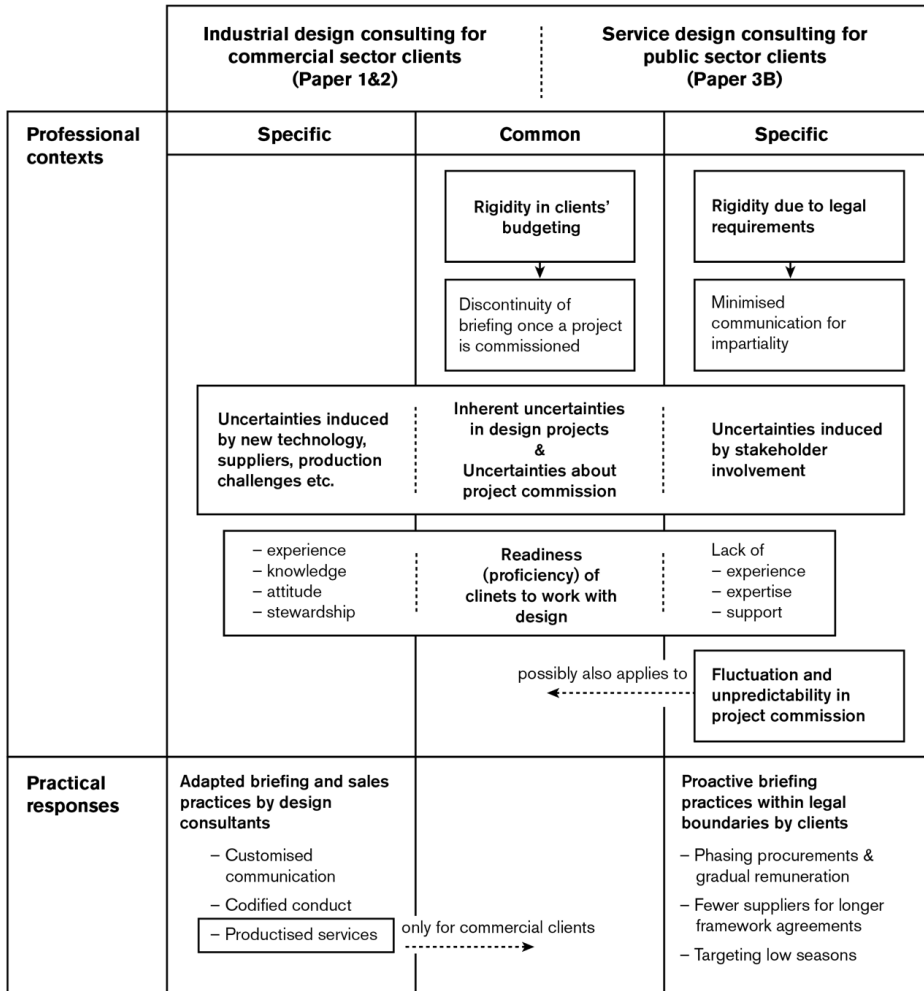


Figure 12 Commonalities and differences in briefing prior to project commission between industrial design consulting for the commercial sector and service design consulting for the public sector

Second, the ways in which the roles of design consultants are seen during briefing also presented a notable contrast between industrial design consultants and service design consultants. In an interview study on how visual designers (re)frame projects with their clients, Paton and Dorst discerned four different roles that design consultants may play: technician, facilitator, expert/artist and collaborator (2011). Congruently, the industrial design consultants interviewed for this dissertation stated that their expected roles varied: as an extended resource that helps implement clients' plans (similar to *technician* in Paton & Dorst, 2011), an expert who creates solutions for clients' business challenges (similar to *expert*) and a provider of turn-key product development services who helps solve many practical and technical issues for the client's product development by sourcing from the network the consultancy boasts (similar to *facilitator*). In addition, the industrial design consultants interviewed for this study discussed how they sometimes have to educate potential clients about the usefulness of design and the ways in which collaboration between the client and design consultants proceeds if the client has little experience in working with designers.

Wetter-Edman and Malmberg in their exploratory study on the role of service design postulated that the purposes of service design for clients today are “both enhancing innovation capabilities, and creating new service” (2016, p. 516). Similarly, studying different levels of transformative impacts of service design through a multiple case study, Yu and Sangiorgi found that designers may play one of the three following roles: “[s]upporting clients’ service development process with user-centred referential data and specifications”, “[m]otivating clients to envision and actualise user-centred and superior service experiences” and “[t]ransforming clients and organisations for continuing user-centred service innovations” (2018, p. 102). The findings of this dissertation confirm these views, as service design consultants were involved in projects where the aim was to develop innovative service concepts, as well as in those with the overtly stated goal of educating client personnel about the mindset and methods of service design and transforming the work culture in the client organisation.

Third, the findings of this dissertation also imply a difference in the ways design consultants conceptualised the proficiency of client organisations in using design. The industrial design consultants frequently associated the level of proficiency with the size of the firm: clients with limited understanding of using design for business competitiveness are smaller firms, while proficient ones are large corporations (Study 2). Although exceptions came to light in the discussion, such as a young manager newly hired by a small firm with a good understanding about using design or a large corporation without much history of using design, there tends to be a consensus among the industrial design consultants interviewed for this dissertation about the association between the size of the firm and the level of proficiency. This seems to resemble how Ramlau and Melander associated the higher level of design proficiency of companies with their turnover (2004). Such an association was not observed during the discussions with the service design consultants interviewed for this dissertation, as large firms and public organisations were frequently discussed as having little understanding of utilising service design (Study 3). That said, this might well be because industrial design is a well-established field, and thus companies with greater turnover have more resources to invest in general, whereas service design is a comparatively emerging field and the competitive advantage it can bring about has not as yet to become a widespread phenomenon. Indeed, many of the service design consultants interviewed discussed how firms are slowly recognising the usefulness of service design for their business, and some of the cutting-edge ones had started recruiting experienced service designers internally at the time of the interviews (2017-2019).

5.3 Contributing to the discussion about clients’ design capability by discerning nuanced themes in a design consulting context

As discussed earlier, scholars have developed frameworks to identify and indicate the varying design and design management capabilities of companies (e.g., Best et al., 2010; Ramlau & Melander, 2004; von Stamm, 1998). Visualised as a form of staircase or ladder, early models by Fairhead (1988, in von Stamm, 1989) and the Danish Design Council (Ramlau & Melander, 2004, p. 49) have been widely accepted and utilised in assessing the varying understanding and capabilities of client firms for using and managing design (Backes & Wolff, 2016). Later, scholars developed models that do away with the linear and one-dimensional conceptualisation of early models and postulated multi-faceted frameworks of design capability, such as “Design Management Staircase” (Best et al., 2010), “Design Maturity Matrix” (*Dmi Toolkit*, 2015) and “design capacity model” (Storvang et al., 2015). Drawing upon organisational

research (e.g., Lane et al., 2006) and based upon a synthesis of extant literature on design capability, Malmberg explored the theme from the perspectives of absorptive capacity that consists of “*knowledge about design and ability to design*”, each of which progresses through the steps of acquisition, assimilation and exploitation (2017, pp. 205–222, emphasis original). More recently, Björklund et al. put forward what they term the “deep and wide design capabilities” that respectively represent “human and question-centered abductive exploration” and “understanding and application of design approaches and the organizational scaffolds to support design efforts” (2020, pp. 5–7).

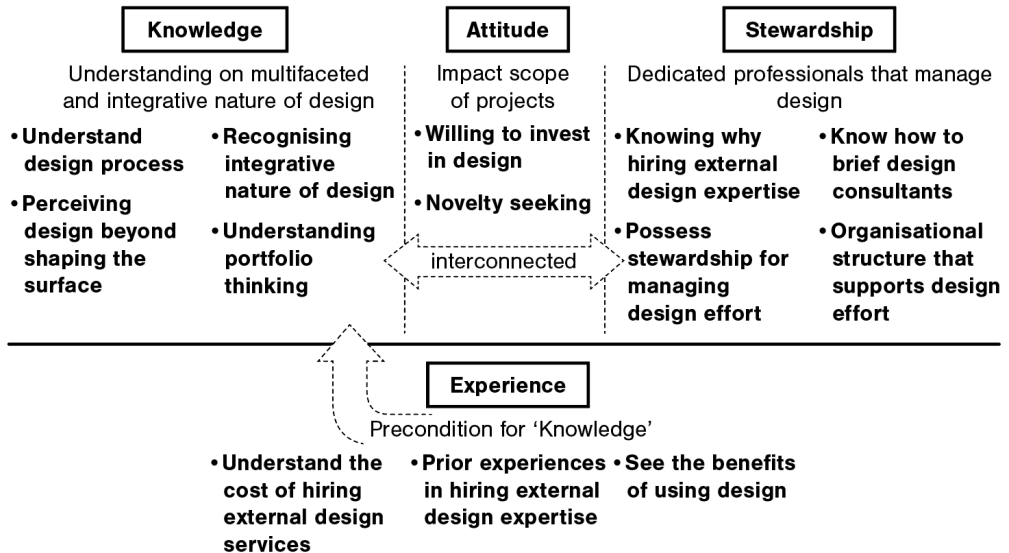


Figure 13 Four themes and thirteen subthemes of readiness as discerned in Study 1

Study 1 of this dissertation adds to this discussion by inductively developing nuanced themes about clients’ readiness to work with external designers from the perspectives of design consultants and reaffirming the findings of previous studies (Figure 13). For example, Malmberg’s synthesis on the extant literature about design capacity consists of “knowledge about design” and “ability to design”, the latter of which can further be divided into “design resources” and “structures enabling design practice”. Study 1 similarly uncovers four different themes (and thirteen subthemes) in terms of clients’ readiness to engage with industrial design consultants: experience, knowledge, attitude and stewardship. The interviewees primarily discussed these themes as being interconnected, while some themes could be seen to be associated with lower/higher degrees of readiness. For instance, “experience” is the most elemental theme in that it precedes the rest. To this end, despite their differences in vocabulary, the themes of Malmberg (2017) and Study 1 seem to correspond to one another (Figure 14). For example, “knowledge about design” identified by Malmberg would correspond to “experience, knowledge and attitude” in Study 1, in that they pertain to fundamental understanding in working with designers. Similarly, “design resources” and “structures enabling design practice” seem to correspond to “stewardship” in Study 1, in that it discusses the actors within the organisation and the structure that supports their activity to exploit the value of using design.

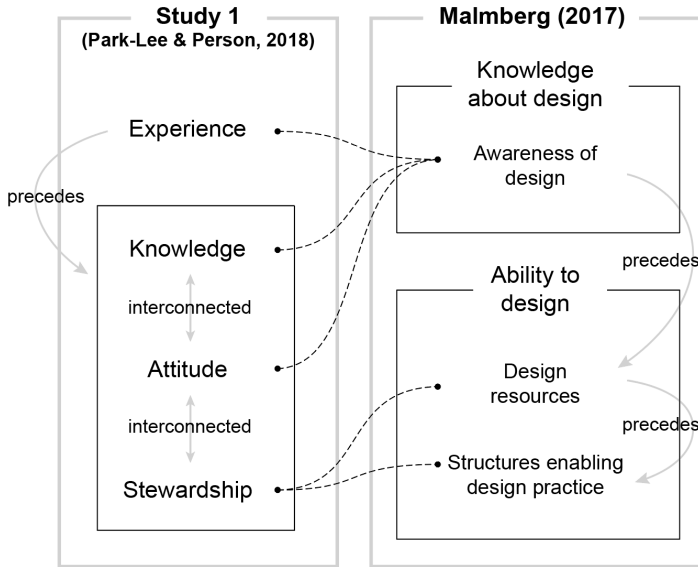


Figure 14 How Study 1 and Malmberg's themes correspond to each other

Further, how industrial design consultants in Study 1 conceptualised the ways in which the proficiency of a client organisation progresses resembles Malmberg’s conceptualisation in that it evolves over time through explorative project experiences and gatekeepers (2017, p. 206). For instance, in Study 1 positive *experiences* from multiple project engagements were discussed as the precondition for sustained use of design for client firms, and hence a more advanced understanding about the nature of the design process – *knowledge*. *Attitude* was often described as the client’s willingness to venture into the unknown in working with design consultants. Drawing upon absorptive capacity literature (e.g., Cohen & Levinthal, 1990; Lane et al., 2006), Malmberg describes how “an awareness of design is developed on an individual level through exploratory learning” and then becomes “diffused throughout the organization and the design resources, and enabling structures are developed” (2017, p. 87). This theory-informed view to a great extent seems to correspond to the themes found in Study 1 – Table 30 shows the matrix with the themes used by Malmberg in evaluating two public sector cases (bolded) that is populated with the subthemes developed in Study 1 (italicised). What seems to be missing in Study 1 compared to Malmberg (2017) is a detailed description of how this design capacity can/should be adopted in an organisation. That said, Study 1 also yields rich descriptions of industrial design consultants’ perception about clients’ proficiency in ways that are specific to the work of industrial design consultants. For instance, “perceiving design beyond shaping the surface” pertains to the multifaceted considerations designers need to make, ranging from comfort and usability to environmental considerations and durability, while “understanding portfolio thinking” entails keeping different products from a brand or company consistent in terms of various aspects.

Table 30 The matrix of Malmberg (2017) populated with the subthemes developed in Study 1

		Acquisition	Assimilation	Exploitation
Knowledge about design	Awareness of design	<i>Understand the cost of hiring external design services (Experience)</i>	<i>Prior experiences in hiring external design expertise (Experience)</i>	<i>Understand design process (Knowledge) See the benefits of using design (Experience)</i>
Ability to design	Design resources	<i>Perceiving design beyond shaping the surface (Knowledge) Knowing why hiring external design expertise (Stewardship)</i>	<i>Recognising integrative nature of design (Knowledge) Willing to invest in design (Attitude)</i>	<i>Understanding portfolio thinking (Knowledge) Know how to brief design consultants (Stewardship) Novelty seeking (Attitude)</i>
	Structures enabling design practice		<i>Possess stewardship for managing design effort (Stewardship)</i>	<i>Organisational structure that supports design effort (Stewardship)</i>

Further, the findings of this dissertation show that the design consultants' appreciation of clients' proficiency can be multifaceted and situational. As discussed earlier, briefing prior to project commission with clients that have lower degrees of proficiency is in general considered to be more challenging in terms of setting out the appropriate aim and scope, as such clients often find the uncertainty in design processes challenging (Study 1) and therefore need more hand-holding and convincing (Study 2). Also, the discussion with experts in Study 2 reveals that it is beneficial to remind inexperienced clients about various dimensions of the design process, and they may not understand how to interface from one phase to another in the design process. In contrast, experienced clients are seen as having their own process and strict requirements for design consultants to adhere to (Study 2). What is more, a client's prior experience in using design was in many instances both explicitly and implicitly coupled with the size of the client's business (Study 2). Accordingly, one could receive an overall impression that working with inexperienced clients takes more effort than working with experienced ones.

That said, this does not necessarily mean that the design consultants always prefer more experienced clients and/or those clients with their own product development teams. For instance, design consultants discussed that it could be in fact easier to offer a so-called "black-box" project plan to inexperienced clients, in which detailed tasks and allocated hours for each task are not predetermined, thereby providing a degree of flexibility to cope with uncertainties that might emerge later in the project (Study 2). Also, clients with less experience were seen to provide a better chance to build a long-term relationship than experienced ones, as they do not usually maintain a network of suppliers to request several offers from like the experienced ones (Study 2). In contrast, while stewardship was primarily described as being a preferred asset from the clients' side for effective briefing, some interviewees noted that the synergy could be limited between the parties involved if the client is not openminded and has fixed ideas about how a project should unfold (Study 1). In sum, the design consultants' appreciation for clients' degrees of proficiency in using design can be seen as situational and relational rather than linear.

Assessing the design proficiency of the public sector in Finland using the aforementioned frameworks for design management indicates that the use of service design in the public sector is in an early phase or at a low level. Borrowing Malmberg's classification, public sector organisations in Finland are in general still in the "acquisition" stage where they are exploring the benefits of using design, with some exceptions where they also have a few gatekeepers that

might facilitate “assimilation” in the future (2017). That said, studies that focus on design in/for the public sector and the themes discerned in Study 3 necessitate rethinking existing frameworks for assessing design management capabilities. Developed in the commercial sector context, existing frameworks emphasise commercial-sector specific themes, such as “market research” (Fairhead, 1988, in von Stamm, 1989) and “marketing plans” (Best et al., 2010). By contrast, Weller et al. found that the four most prominent forms of innovation by design in the French public sector between 2006 and 2015 were through “citizen participation, data visualization, improving accessibility for public services users and reengineering decision-making process” (2017)²¹. Here, the examples of data visualisation include the visualisation of medical information and open public data (Weller et al., 2017), which may fall into any of those following categories in existing frameworks – design as styling, process, strategy (e.g., Fairhead, 1988, in von Stamm, 1989, Ramlau & Melander, 2004) or all of the above. Further, similarly to Warland and Mayer, who studied public procurements of IT consulting services in Switzerland (2017), the findings from Study 3 suggest that projects for the public sector often require engaging with a large number of stakeholders and may thus involve a higher degree of uncertainties. This suggests that, for service design projects in the public sector, the client’s understanding of the interconnectedness of public services, and hence their ability to delineate the scope of a project realistically, could be one measure of their maturity in working with external service designers.

Practitioners and scholars have emphasised the peculiarities of using design in the public sector. For instance, Bason argues in a positioning paper that designing for the public sector involves a specific set of challenges that are uniquely different from the commercial sector, such as the political context, hierarchy and bureaucracy, and lack of market competition, all of which make it difficult to measure the success of a project (2012, p. 49). Junginger also noted that public sector innovation inadvertently requires understanding the regulations applied to each agency (2017, p. 293). Perhaps with the exception of Malmberg (2017), the majority of frameworks for assessing a client’s proficiency in using design originate from the commercial context; those that are modified or devised focusing on the peculiarities in using design for the public sector are few. This calls for renewed interest in iterating extant frameworks or devising new ones both inductively and theoretically to cater to the rising demand for design in the public sector around the globe.

5.4 Identifying enablers and barriers for effective briefing in design consulting

As discussed earlier, there are two contending notions of briefing in the literature – the deterministic one that sees briefing as an analytical activity to create a clear problem definition early on in the project (Cherry, 1999; Peña & Parshall, 2012, pp. 14–15; Phillips, 2004, p. 54) and the dynamic one that considers briefing as an iterative process throughout a project (e.g., Blyth & Worthington, 2001, 2010; Lawson, 2004, p. 13; Ryd, 2004b). Although scholars and practitioners often tend to have a clear preference for one of the two above, the findings of this dissertation show that the reality is more nuanced: even though practitioners pursue iterative and

²¹ Weller et al. surveyed 114 French-language websites of design consultancies, public organisations, schools and universities, blogs run by designers and online magazines, and identified 204 design innovation cases.

continuous briefing, the milieu of design consulting does not readily cater to such briefing practices due to its contractual nature.

Extending the “barriers and enablers for reframing” postulated by Paton and Dorst (2011), Study 1 and 3 of this dissertation add barriers and enablers for iterative briefing in design consulting. Through an analysis of interviews with experienced visual design consultants, Paton and Dorst listed three barriers (fixation, problem-solving mental model of design and resistance to journey) and three enablers (metaphor and analogy, contextual engagement and conjecture) for reframing²² (2011). From the studies of industrial design consulting and public procurement of service design, this dissertation extends one barrier, while also adding three barriers and one enabler (Figure 15).

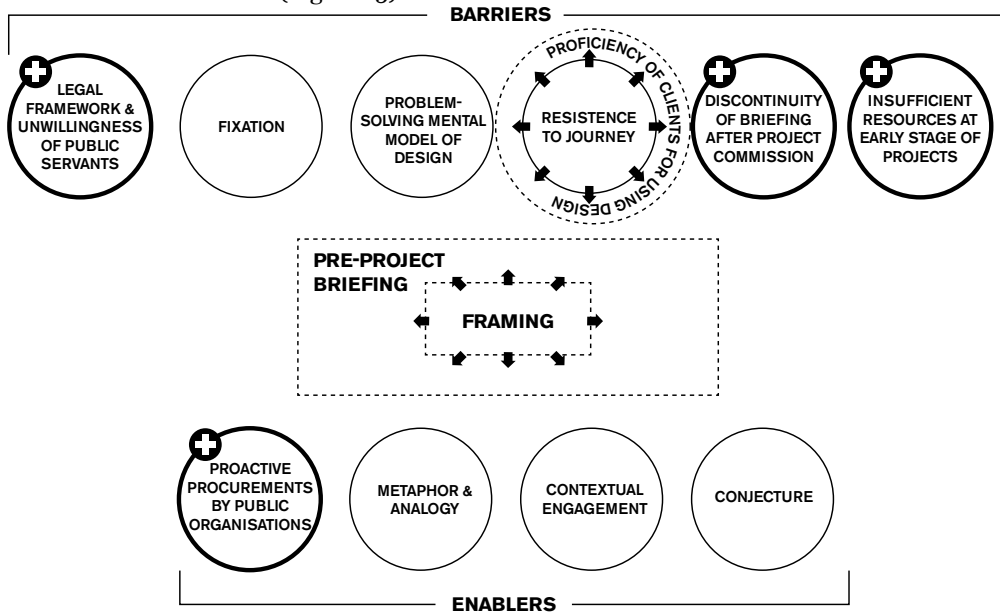


Figure 15 Barriers and enablers to reframing during pre-project briefing expanded through the studies of this dissertation

“Discontinuity of briefing after project commission” (Study 1 & 3) may be universally present in design consulting across all fields of design, given that an offer is frequently made without full insight into the project and client organisation. “Legal framework and unwillingness of public servants” (Study 3) seems to be more specific to service design consulting for public sector clients, though large corporations may also have stringent guidelines for procurement of consulting work. The limited understanding of public sector clients about the core benefits of using service design tends to result in “insufficient resources at the early phase of projects” (Study 3).

²² By analysing video recordings of a product development project in an international printing solutions company, Stompff et al. (2016) find that unexpected findings in team discussions (which they term “surprises”) encourage reframing, and argue that surprises incite team learning and innovation. However, the research interest of Stompff et al. (2016) is not directly relevant for this discussion, as their research question is more concerned with the dynamics of sensemaking and reframing in an ongoing project within a product development team, while that of Paton and Dorst (2011) and this dissertation revolves around framing (scoping) a project with the client while initiating a project.

The notion of “resistance to journey” can be expanded towards a broader theme, “proficiency of clients in using design” (Study 1, 2 and 3), as a client’s willingness to embark into the unknown may be heavily influenced by their experience and knowledge of the design process. “Proactive procurements by public organisations” emerges as an enabler for more effective and iterative briefing prior to project commissions (Study 3).

5.5 Adding to practical guidelines with empirically grounded findings

As discussed earlier (Section 2.1.1), practical guidelines on briefing have mostly been drawn up in architecture and adjacent fields, while dedicated guidelines for briefing for industrial design consulting and service design consulting have been scant. Further, guidelines that discuss briefing prior to project commission in design consulting have been rare to the best of my knowledge. By revisiting the findings of the studies included in this dissertation and the cross-cutting contributions discussed thus far, this dissertation provides empirically grounded guidance that could help practitioners to mitigate and resolve the challenges they face.

First, the studies of this dissertation provide strategies for design consultants to help them pursue more iterative briefing and relationship-building in the long run. As discussed earlier (2.3.2), practical guidelines on briefing do not provide clear and definitive guidance, especially in terms of whether briefing should be seen as being more linear and deterministic (e.g., Peña & Parshall, 2012; Phillips, 2004) or dynamic and reflective (e.g., Blyth & Worthington, 2001; Schön, 1995). The findings of this dissertation suggest that, although design consultants pursue iterative and continuous briefing, the real-life context of briefing does not readily cater for such briefing practices. Therefore, despite the consultants’ wishes, briefing at the pre-project phase in design consulting shall be seen as more linear and deterministic in that the project plan in an offer, once accepted, cannot easily be altered later in projects. That said, the findings of this dissertation also suggest that design consultants can go above and beyond what has been conventionally deemed as briefing practices, such as codification or productisation of briefing, especially for commercial clients (Study 1). For example, as a form of codification, offering a free-of-charge “briefing workshop” following a set procedure with visual aids can help consultants learn more about the (potential) client and the specific field the client operates in, while productisation can help consultants build an initial relationship with (potential) clients while also being paid for their work. As will be discussed later, however, incautious adoption of such strategies may not always be helpful, as they require careful consideration specific to the context a consultancy operates in.

Second, the studies of this dissertation provide guidelines for design consultants to tailor their briefing practices to align them with the proficiency of their clients in using design. Past guidelines for briefing do not actively engage with the discussions about clients’ varying proficiency in using design and how to deal with different briefing situations induced by clients’ proficiency. For example, although Blyth and Worthington discuss the (lack of) prior experience of clients with building projects as a success (failure) factor for briefing (2001, p. 8), they do not further detail the ways in which the challenges could be mitigated. Phillips normalises the importance of taking the position of an expert when working with non-designers, emphasising that “Designers Shouldn’t Be Taxi Drivers” (2004, pp. 12–18). He goes on to compare designers to “physicians” who should not carelessly follow what “so-called clients” ask for.

While considering clients as experts in their own businesses, the industrial design consultants interviewed for this dissertation made clear distinctions about the clients’ proficiency in

using design in terms of their experience, knowledge, attitude and stewardship (Study 1). In doing so, they approached their roles in briefing differently by aligning themselves with the (potential) client's proficiency: a more educational and leading role for inexperienced clients while pursuing a long-term relationship with them; and greater compliance with the established processes of experienced clients, serving them as their extended resources (Study 2). Such distinctions imply that design consultants (knowingly and unknowingly) pursue different approaches when carrying out briefing before project commission according to the client's (perceived) level of proficiency. Further, the 70 factors in six common categories discerned in this dissertation (Study 2) provide a checklist for design consultants to consider when briefing with inexperienced/experienced clients (a more detailed discussion can be found in Section 4.2).

Finally, the studies included in this dissertation provide situational domains for design consultants to consider when briefing before project commission. Such situational domains found in Study 2 are: National and Industry domain, Client domain, Consultancy domain and Product/Relationship domain. For instance, the "National and Industry domain" pertains to the standing of industrial design and how project fees are estimated in Finland. One of the implications of the "Client domain" – although this is not universal – is that the size of the client firm (small-large) is associated with its degree of proficiency in using design (low-high).

Among these four domains, the "Consultancy domain" seems to have strong implications for how the adapted briefing practices found in Study 1 should be strategically employed, as the domain pertains to the size, reputation and (marketed) expertise and/or the specific practices for briefing and sales the consultants favoured. For example, the findings of Study 1 suggest that, in systematising and codifying their briefing practices, design consultants should consider the types of clients they serve and the typical scope of project commission. As discussed earlier in this section, design consultancies could offer free-of-charge briefing sessions for clients, as it could help them keep themselves up to date in a specific field they specialise in. However, the interviews with industrial design consultants in Study 1 reveal that such free briefing sessions should be offered cautiously, as the time and resources spent should eventually be collected back through lengthier projects and/or higher project fees. For instance, those consultants that specialise in medical product design can afford to do so because their project fees are comparatively higher than in other industries. In contrast, those consultancies that specialise in working with start-ups cannot typically offer such briefing sessions for free, as the project scope is typically narrow and the fees clients can afford in that sector are often quite limited. Therefore, one of the interviewees of Study 1 stated that s/he always includes a dedicated briefing session on the first day of the paid project period in the offer when serving start-up firms.

Study 3 shows that the service design consultants interviewed for this study also developed such productisation strategies in order to market their work more easily to inexperienced clients. However, they could not utilise such service products when creating offers for public sector clients since the procurement procedure is strictly dictated by the legal requirements and often fully predetermined by public servants before consultancies are involved in the process. To this end, the study lists a few practical responses where public servants took a more proactive role in devising the procurement procedure. Most notably, the case discussed involves phasing a procurement procedure into different phases and pursuing more iterative discussions with the contenders selected for the second phase.

6. Conclusion and discussion

In summary, briefing prior to project commission is found to be an embedded part of the sales and procurement process that requires design consultants to plan a project and estimate the subsequent quotation for fees despite the uncertainties involved in the design process. In doing so, design consultants engage with a complex set of considerations – delineating the project scope, detailing the phases and deliverables, taking unexpected situations into account, and making assumptions about clients' experience, proficiency and ambition for using design. This is a business-critical moment for design consultants, as it not only predetermines the immediate profit from projects, but also has an overarching impact on the design outcome and forming initial and long-term relationships with (potential) clients, and thus influences the business longevity of design consultancies.

The findings of this dissertation first and foremost unveil how briefing before project commission can be seen as being more linear and deterministic (e.g., Peña & Parshall, 2012; Phillips, 2004) than dynamic and reflective (e.g., Blyth & Worthington, 2001; Schön, 1995). Once accepted, the plan cannot easily be changed due to the contractual nature of a project plan in an offer, as has already been noted by scholars in design management (e.g., Bruce & Morris, 1998a). Design consultants developed “adapted practices” that bridge uncertainties in design projects for, and improve the interactions with, potential clients with varying proficiency in the pre-project phase (Study 1). This exemplifies how design consultants pursue continuous and iterative briefing despite the abovementioned challenges, reinforcing the rationale and the necessity of iterative briefing and co-evolution of problem and solution in design (e.g., Blyth & Worthington, 2001; Cross, 2007; Dorst & Cross, 2001; Phillips, 2004; Ryd, 2004b).

As discussed earlier, studies have shown that client firms hold varying degrees of proficiency in working with (external) designers, influencing their level of ambition and commitment, as well as their competence in communication and coordination (e.g., Micheli, 2014; Ramlau & Melander, 2004). Studies also show that designers' expertise plays an important role in briefing, as briefing entails (re)defining design problems while negotiating with involved parties (e.g., Cross, 2007; Lawson, 2004; Tomes et al., 1998). Pursuing a continuous dialogue with a panel of experts through Delphi-inspired expert inquiry (Linstone & Turoff, 2002), this dissertation uncovers how design consultants tailor their communication at the pre-project phase to align it with the proficiency of clients in using design (Study 2). In doing so, it also adds to the extant literature by finding that clients' experience and its impact on briefing prior to project commission could perhaps be best understood as a “situated encounter” for design consultants that involves multifaceted considerations. Study 2 highlights four domains for consideration from the continuous discussions with the expert panel: the National and Industry domain, Client domain, Consultancy domain and Project/Relationship domain (a more detailed discussion can be found in Section 4.2.). This shows in practice that the challenges design consultants face during briefing before project commission are situated and context-specific, confirming

that each project (and its engagement) is unique in design practice (e.g., Rittel & Webber, 1973).

This dissertation also explores the nature of briefing for public procurements of service design in Finland (Study 3). Briefing during such procurements shares a number of similarities with briefing in industrial design consulting, such as the varying proficiency of public organisations in using service design, and the challenges in changing the scope of a project once a procurement decision is made. As the findings of Study 3 suggest, however, service design projects for public sector clients typically involve a large number of users and stakeholders, which may lead to more pronounced uncertainties concerning how a project will unfold. In addition, Study 3 finds that public sector clients often require service design consultants to utilise pre-existing materials and/or demand to carry out some of the tasks themselves, with possibly unpredictable or unreliable results, further contributing to greater uncertainties for design consultants during briefing prior to project commission. Further, the context of briefing in public procurement also holds peculiarities that present specific challenges to service design consultants, including how service design is often bundled with other broader agendas and how public servants minimise or avoid early communications with their potential suppliers for the sake of impartiality. As the resources for service design efforts are frequently tied up in government bureaucracy and such procurement is principally structured by legal and organisational requirements, it would rarely be possible to radically alter the processes of public procurement in which briefing at the pre-project phase unfolds. That said, some public organisations have tailored procurement processes for more effective briefing within the legal boundaries, as exemplified in Study 3.

The findings of this dissertation reveal similarities and differences between industrial design consulting and public procurement of service design for briefing at the pre-project phase. The similarities include the uncertainties involved for both design consultants and clients, the challenges in changing the scope of a project once a procurement decision is made due to budgetary (and legal) constraints, and how clients' proficiency may influence the communication and negotiation involved. The differences arise in terms of the sources of uncertainty, how the roles of design consultants are seen by clients, and the types of projects that are expected. These findings imply that the focused approach of this dissertation that inquired into different sub-fields of design could be justified, as such findings might perhaps be more difficult to obtain when various fields of practices are studied as a bundle.

As discussed earlier, design management literature points to a number of challenges around early communication and negotiation between clients and consultants (e.g., Eneberg & Holm, 2015; Hakatie & Rynänen, 2007, pp. 42–44; von Stamm, 1998). Designing and briefing are both cognitive and social activities (e.g., Cross & Cross, 1995; Dorst, 2017, p. 22), and therefore the ways in which briefing is conducted pertain to how proficient client organisations are in using design, and how they set out to manage their design needs (e.g., Jevnaker & Bruce, 1998; Ravasi & Stigliani, 2011; von Stamm, 1998). Although these challenges could be mitigated through building long-term relationships between clients and design consultants, successful execution of consecutive projects at the beginning of the relationship is a prerequisite (e.g., Bruce & Docherty, 1993; Bruce & Jevnaker, 1998; Jevnaker, 2005; von Stamm, 1998). In identifying the nature and contexts of briefing prior to project commission, this dissertation adds to such discussions by uncovering the prerequisites for successful designer-client relationships and how the early communication and negotiation with clients may have a lasting impact on projects and the longevity of design consultancies' businesses. In settling the brief for a new

project with a potential client, the findings of this dissertation could be useful for design consultants to assess their standing in terms of different domains, adjust their communication with the (potential) client, and adapt their briefing practices to acquire more project commissions and improve project outcomes.

The aspects of communication, collaboration and relationship discussed in design and design management literature (e.g., Bruce & Docherty, 1993; Bruce & Jevnaker, 1998; Ryd & Fristedt, 2007) to a degree resonate with findings from some of the studies in KIBS literature (e.g., Aarikka-Stenroos & Jaakkola, 2012; Cabigiosu & Campagnolo, 2019; Lindberg & Nordin, 2008). For instance, borrowing from social psychology (e.g., Amabile, 1983) and educational technology research (e.g., Jonassen, 2000), Nordin and Kowalkowski shed light on the “ill-structured nature” of business solutions (2010). This resonates with the ill-structured nature of problems widely discussed in design literature (e.g., Getzels, 1975, 1982; Paton & Dorst, 2011; Rittel & Webber, 1973; Schön, 1995; Simon, 1984). Studies in knowledge-intensive business services (KIBS), however, predominantly employ large-N research design in which a multitude of KIBS or C-KIBS are treated as a homogenous group. Therefore, focused studies on industrial design consulting and service design consulting have been scarce to date in KIBS literature.

With first-hand experience as a design consultant, the author has a strong drive to provide practitioners with empirically grounded guidelines and thus this dissertation has sought to focus on what briefing entails before project commission in real-life context of design consulting. Accordingly, this manuscript thus far has primarily engaged with the literature in design, design management and knowledge-intensive business services. In doing so, it touches upon the theory of framing in design (e.g., Paton & Dorst, 2011) and its related constructs, such as co-evolution of the problem and solution space (e.g., Dorst, 2019) and thus the need for iteration (e.g., Jin & Chusilp, 2006), and delineates the implications of what they predict within the real-life contexts of briefing before project commission in design consulting. Given the limited window of time and resources allowed for design consultants in briefing before a project commission, engaging with other theoretical spaces that are relevant to briefing as a broader research topic has been outside the scope of the studies in this dissertation, as such domains tend to pertain to more longitudinal aspects of client-consultancy engagements than the phenomenon under investigation in this dissertation. That said, the following domains seem worth exploring, as the studies included in this dissertation show traces of findings relevant to these constructs, and thus they could fruitfully be explored in future studies on briefing in design consulting: knowledge asymmetry between designers and clients (e.g., Foque & Lammineur, 1995), co-creative practices (e.g., Holmlid et al., 2015), dynamic capability that sees external expertise as an extended capability of firms in an innovation ecosystem (e.g., O’Reilly & Tushman, 2008; Vogel & Güttel, 2013) and pricing (e.g., Bashir & Thomson, 2001a, 2001b). Below, I discuss these areas and make suggestions for future research.

6.1 Probing information and knowledge asymmetries in briefing

The discussions around clients’ proficiency in using design and design consultants’ expertise in briefing is wide-ranging in its relevance to varying theoretical spaces: design and design management (Haug, 2015; e.g., Heskett & Liu, 2012; Paton & Dorst, 2011), absorptive capability (e.g., Lane et al., 2006; Malmberg, 2017), knowledge-intensive business services and knowledge asymmetry (e.g., Aarikka-Stenroos & Jaakkola, 2012; Sharma, 1997). That said,

probing information and knowledge asymmetry in briefing throughout projects seems to be relevant in fruitfully extending the findings of this dissertation for the following reasons.

Drawing upon the notion of “knowledge asymmetry” between clients and suppliers, Aarikka-Stenroos and Jaakkola developed a framework for the different roles suppliers and customers can jointly play in defining and solving business problems in the context of KIBS (2012). Based on an analysis of 120 interviews, they concluded that the suppliers provide expert knowledge, diagnosis skills, facilities and professional equipment, and relational capital, while the customer brings in resources ranging from information on needs and contexts to financial resources (Aarikka-Stenroos & Jaakkola, 2012). As knowledge is a slippery concept, it is difficult for principals (e.g., clients) to evaluate the performance of knowledge workers (Alvesson, 2001), such as design consultants. Therefore, agency theory predicts opportunism and rent-seeking behaviours from agents (Shapiro, 2005), although these are also seen as being mitigated through various types of controls (Sharma, 1997). Information and knowledge asymmetry affects not only client firms but also design consultants. When a design consultancy works with a client and/or in a particular sector (e.g., medical products, banking, etc.) for the first time, it may not have insight into the client organisation and/or peculiarities of that sector. In the context of the online advertising market, Liu and Viswanathan describe what they term “two-sided information asymmetry” as a situation in which the “publishers and advertisers are asymmetrically informed about each other” (2014, p. 610). Such situations of two-sided asymmetry have also been noted in the context of architectural projects between clients and architects (Foque & Lammineur, 1995), and between patients and doctors in medical consultations (Major, 2019). Through a case study about an architectural project of a specialised hospital, Foque and Lammineur find that participatory approaches that engage medical professionals and patients into design help resolve an “asymmetry of knowledge” and turn it into “symmetry of understanding” under a new vision: “a hospital that will be a home” (1995, p. 49). Through mathematical models for “multifactorial interrelationships”, Major predicts that high-performing healthcare units may be penalised while low-performing ones get rewarded due to “double-information asymmetry” between the medical experts and patients (2019).

A degree of knowledge asymmetry can also be found between design consultants and clients across the studies of this dissertation. During the interviews for Study 1 and 2, the interviewees (experts) considered the ease of working together with clients as being contingent on the proficiency of clients in using design, as well as on whether a client had prior project engagements with them. This could perhaps imply that knowledge asymmetry is not only about the specialist knowledge (e.g., architecture, design or engineering) and the sector (e.g., banking, healthcare, heavy machinery) one needs to understand for successful collaboration with their counterparts, but also the business operations of either the client firm or consultancy, as well as the ways in which the individuals involved deal with their daily work. To this end, they also discussed how they frequently seek to form long-term relationships with clients, as this can yield a deeper understanding of clients’ businesses and operations, and hence have a greater business impact for clients as well as improve the longevity of the business perspective of their consultancies. The discussions during the interviews also revealed that quite a few of them have developed a degree of specialisation in different subsectors, which seemed to have made it easier to reduce the information and knowledge asymmetry on the consultancy side. For instance, some of the interviewees stated that they specialised in medical products, while others have mentioned heavy machinery or lifestyle products as their field of deep expertise. Further, as discussed earlier, some of the consultants offer briefing sessions for clients that are free of

charge, as it helps them keep themselves up to date in a specific field of specialisation. A similar, yet different pattern emerges in Study 3. On the one hand, public sector clients during the interviews discussed the challenges in terms of their lack of experience and knowledge of the ways in which the public sector can benefit from using service design, and how they can/need to brief, and cooperate with, external service design consultants. On the other, service design consultants wished to understand how the funding for service design projects comes about, as it was seen to have implications for the ways in which the procurement is formed. These asymmetries seemed to manifest more strongly in the public sector, as open and continuous communication was often avoided by the public servants who ultimately had the authority to designate the procurement process, and thus briefing.

Again, observing how information and knowledge asymmetry can be reduced over a long period has been outside the scope of this dissertation given the research questions and resulting methodological choices. Further, as discussed earlier, due to the business-critical nature of briefing at the pre-project stage, it would rarely be possible to observe how knowledge and information asymmetry play out during briefing prior to project commission in between client personnel and the design consultant as a non-member. Future studies thus could address this topic by observing the briefing sessions from the client side from early on, starting from the inception of the needs for project engagements if practically possible (e.g., Hyysalo & Hyysalo, 2018; Jensen, 2011). Such an approach could fruitfully demystify the process of project initiation and unveil different assumptions of the client organisation when they initiate (potential) project discussions engaging with design consultants and reveal the information and knowledge asymmetry between the involved parties from clients' perspectives. In addition, studies could explore how the two-sided knowledge asymmetry could be mitigated in design projects through a longitudinal investigation; for this purpose, the lens of absorptive capability might be fruitful (e.g., Lane et al., 2006; Malmberg, 2017). By building upon the stepwise analytical lens, such studies could shed light on detailed examples of information and knowledge that are the sources of asymmetry and help build systematic guidance for design consultants and clients alike.

6.2 Codifying co-creative activities for briefing prior to project commission

Dynamic capability literature shows that codifying a firm's offerings might be highly relevant to KIBS firms and their clients. Extending the resource-based views (e.g., Barney, 1991; Wernerfelt, 1984), the dynamic capabilities approach entails embracing the rapidly changing nature of the market environment by developing learning and adapting routines (e.g., Williamson, 1999). Accordingly, the approach is defined as "how combinations of competences and resources can be developed, deployed, and protected" (Teece et al., 1997, p. 510) and developing "organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die" (Eisenhardt & Martin, 2000, p. 1107). By analysing the dynamic capabilities of 125 Dutch KIBS firms based on survey data, Janssen et al. found a strong correlation between a firm's innovativeness and its capabilities for "translating raw ideas into marketable service propositions" (2018, p. 432). Referencing designerly methods used in service innovation and service design, such as visualisation, prototyping and blueprinting (e.g., den Hertog et al., 2010; Furrer et al., 2016), they emphasised that the "intermediate capability of conceptualising" can help KIBS firms capitalise on knowledge flow,

balancing between “openness and the need to develop dynamic capabilities for distinct phases of knowledge processing” (2018, p. 449).

Briefing in design consulting can be seen as such a process of conceptualisation where clients’ business goals are harmonised with the knowledge and expertise of design consultants, translating them into actionable tasks and plans. Given the findings of this dissertation that show the linear and deterministic nature of briefing before project commission in the context of design consulting, however, the window of opportunity for design consultants to engage with one another for iterative and collaborative conceptualisation can be limited in real-life practices, unless the client organisation chooses to take on more proactive roles (Holmlid, 2004; Jensen, 2011).

Scholars in co-design and service design have been developing new approaches that would make it possible for different stakeholders to jointly set the aim and direction of a project. Often based upon generative approaches (Mattelmäki & Sleeswijk Visser, 2011), co-design practices are directed by knowledge needs, through defining the purpose, utilising co-creative characters and developing facilitation capacity (Holmlid et al., 2015). For example, Sökjer, et al. identified the usefulness of personas and abstract figures that unfolded on a white board in a series of workshops as a “repertoire” in client–designer communication (2007). Another good example is design games, a promising approach for “facilitating creative interplay between current practices and future opportunities” (Vaajakallio, 2012, p. 9). Such methods are seen as a type of co-creation activity that enables improved idea generation, communication and collaboration while downplaying power relations (Brandt et al., 2008; Brandt & Messeter, 2004).

The findings of this dissertation support the idea that such a co-creative mindset and techniques may indeed be useful for briefing prior to project commission. For instance, some of the industrial consultants interviewed for Study 1 have developed what we termed “codified conducts”, which range from using a checklist to “briefing workshops” during which the design consultants and clients collaboratively set the project outcome utilising visual aids. As discussed earlier, design consultants use this not only as a chance to form an initial relationship with potential clients, but also as a way to fill gaps in their knowledge in a field they specialise in. The co-creative activities postulated by co-design and service design scholars could thus be useful to facilitate more fruitful briefing and explore possible directions at the pre-project phase.

However, studies have raised concerns about utilising such co-creative practices in real-life design projects, such as asymmetrical power dynamics in co-design activities (Hyysalo & Lehenkari, 2002) and the possibility of such practices to become a “superimposed one-off activity” without an explicit connection to real-world implementation (Pirinen, 2016, p. 33). Further, Study 1 shows that “codified conducts” are typically practiced in specific fields where project fees are relatively high and thus the cost of such early investment from the design consultancy side can be recovered with a few resulting commissions (e.g., designing healthcare products). Design consultants that specialise in working with start-ups, for example, stated that running such a workshop for every potential client would cause financial difficulties, as the project commissions are comparatively small – some days of work typically – and only a few of the discussions between a design consultant and a potential client lead to actual projects. In other words, facilitating co-creative sessions during initial discussions with every potential client would be too big an investment for design consultancies that typically acquire relatively small projects.

In exploring the usefulness (and potential pitfalls) of co-creation activities in the pursuit of developing dynamic capabilities in design consultancies, future studies could explore codification of briefing practices applying the generative principles of co-design and co-creation (e.g., Mattelmäki & Sleswijk Visser, 2011). Given the fuzzy and/or malleable nature of briefing practices and the limited window of time and resources, what Lucero et al. termed the “process, space and material” (2012) provides one particularly useful (tangible) framework to analyse such explorative practices. Such an inquiry could perhaps be also addressed through action research (e.g., Reason & Bradbury, 2006) in order to unearth the impact of a specific aspect or change during briefing at the pre-project phase into actual project periods by enquiring into the experiences of both clients and design consultants. Finally, similarly to the “paired comparison” (Tarrow, 2010) of this dissertation, exploring such codification in design consultancies that specialise in more established fields (e.g., architecture or industrial design) or more emergent fields (e.g., digital user experience design or service design) could yield meaningful contrasts given the knowledge, skill and tradition appreciated by clients in respective fields, as well as their affinity towards co-creative practices.

6.3 Exploring pricing in briefing prior to project commission

The findings of this dissertation suggest that cost estimation is one of the most important aspects of creating a successful brief (offer) for potential clients. That said, “accurateness” in cost estimation seems to be a relative concept in that it concerns not only the appropriate amount of resources assigned to required tasks but also the appreciation of the tasks by clients with varying levels of proficiency in using design. For example, a number of design consultants interviewed for Study 1 discussed how clients often rejected certain parts of a project plan in the offer, as the clients did not see the value in them²³.

Accurate cost estimation for projects has long been of major interest to management and planning scholars. Borrowing from the psychology of forecasting and planning, Hogarth and Makridakis developed a taxonomy of flaws in intuitive forecasting (1981). They argued that flaws occur due to information processing biases that range from acquisition of information to feedback. Analysing resource estimation practice for IT projects in the Irish public sector, McCulla argued that errors in estimation can occur due to the uniqueness of the tasks involved in projects and the lack of available historical data (1989). Abdel-Hamid and Madnick developed what they termed a “system dynamics model for software development project management” (1986). Developing models for estimating cost, schedule and performance in complex new product development, Browning pointed to the multiplicity of considerations that go into estimation, such as the evolving market, customers’ indecision on needs and aims, uncertainties in technical solutions and conflicting desires of customers (1998, pp. 216–217). More recently, Bashir and Thomson have developed an analogy-based and parametric model for estimating design effort (e.g., 2001a, 2001b).

In extending the findings of this dissertation and building upon the extant literature on pricing and cost estimation, future studies could test, validate and modify previously developed models in the context of design consulting against the backdrop of the experiences of design consultants and clients. For example, given that hourly pricing is the norm in Finland and likely in other parts of Nordic Europe, they could use laboratory settings (e.g., Dorst & Cross,

²³ Examples of such activities include direct observation of existing and competitors’ products being used in real-life settings or testing created concepts with users.

2001) or expert surveys (e.g., Person et al., 2008) where managers and designers with varying degrees of experience are invited to allocate what they deem to be the appropriate amount of time required for each task and provide their rationales for clearly defined aims in fictitious design projects. Such exploratory studies could yield an understanding into how such estimation takes place and how they may differ according to the level of expertise and experience. They could also provide more empirically grounded models for pricing in terms of not only the tasks themselves, but also the complexities involved and/or proficiency of personnel.

6.4 Geographical, temporal and sectoral explorations for briefing

Serving as the geographical and temporal context for this dissertation (Lewis et al., 2014, pp. 351–352; Whetten, 1989, p. 492), the design consulting scene in Finland provides a rich backdrop for exploring broader contexts of briefing situated in industrial design consulting and public procurement of service design. Its advanced capabilities coupled with its small size (Moultrie & Livesey, 2009, pp. 37–39) enable gaining a comprehensive view on the scene and observing the complex nature of briefing in detail at the pre-project phase with relative ease. I therefore argue that the findings of this dissertation can be useful for understanding the general context of briefing in design consulting in other geographical and temporal contexts through careful “logical, thoughtful and problem-oriented” extrapolations (Patton, 2002, p. 584). That said, although Finland boasts one of the foremost developed economies in the world with a highly trained workforce, its scale is small compared to major economies with a high design capacity (e.g., Germany, U.K. and U.S.). As a result, although design consultancies in Finland are highly capable and serve international clients around the globe, their specialisations have not diversified as much as in the major economies due to their small capacity²⁴.

Given these reasons, future studies could explore real-life briefing practices in different national, disciplinary and sectoral contexts and discern commonalities and peculiarities between them, perhaps focusing on one professional context in different geographical locations, and/or juxtaposing the contexts of briefing in radically different markets, which could fruitfully enable such analysis. For example, studying briefing practices in countries with different degrees of adoption of a certain field (e.g., service design in Finland and South Korea) could yield fruitful analysis on how the ways in which a field is understood by client firms in general have an impact on the ways briefing takes place, and how design consultants adapt their practices accordingly. Alternatively, comparing digital design consultancies that primarily serve start-up clients in Silicon Valley and those that primarily serve large manufacturing firms in an emerging economy could help discern whether the agility of procurement and decision making facilitates more iterative briefing prior to project commission and in the subsequent design process.

²⁴ For more discussion on this topic, see Hytönen, Järvinen and Tuulenmäki (2004), Moultrie and Livesey (2009) and Valtonen (2007).

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Seungho Park-Lee is a designer, educator and researcher who is passionate about designing public services and policy for a more sustainable future. As a doctoral student at Aalto University, he has been a proud member of Strategic Design Integration and Management research group. Upon receiving his master's degree from Industrial and Strategic Design programme at Aalto University, he founded Design for Government course under Creative Sustainability master's programme in 2014. Since the summer of 2013, he has been serving as one of the Demos Helsinki Associates. Previously, he had worked for the strategic design unit at the Finnish Innovation Fund Sitra (also known as Helsinki Design Lab) and design consultancies in Helsinki and Seoul.

For more information, visit seungholee.com



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