Discussion

The objective of this dissertation was to further research on joint ventures (JVs) in two directions: (1) by providing novel insights on the implications of post-formation changes in JVs and (2) by examining the individuals appointed to JVs and their effect on JV outcome. We have conducted three empirical projects (Chapters 2 - 4) on wind farm JVs incorporated in the United Kingdom (UK) as a way to contribute to these broader objectives. In this chapter, I summarize the key findings of our projects. I also reflect on the theoretical and managerial implications of our findings. Finally, I discuss new avenues for future research.

5.1. Overview of empirical findings

In Chapter 2, we aim to integrate prior perspectives on post-formation partner change. Using strategic flexibility as a theoretical framework, we argue that the - positive or negative - performance effect of partner change depends on (1) the extent to which a JV’s resources can be adapted to new contexts (i.e. technological complexity), and (2) the extent to which a JV’s hierarchy enables effective coordination of the change process (i.e. equity concentration). Accordingly, our two hypotheses propose that technological complexity and equity concentration - negatively and positively - moderate the relationship between partner change and JV financial performance. In the main analysis, we show that JV’s technological complexity negatively moderates the relationship between partner change and JV financial performance (Hypothesis 1). We demonstrate
(through a Heckman correction) that this result does not suffer from sampling bias, and also remains robust when accounting for wind speed and an alternative measurement of technological complexity (i.e. the number of turbines). In the main analysis, we do not find support for equity concentration as a positive moderator of the partner change – JV financial performance relationship (Hypothesis 2). Contrary to our expectations, our post-hoc analysis however shows that highly concentrated equity (corresponding to a Herfindahl-Hirschman Index of 0.5 or higher) negatively moderates the performance effect of partner change. Additionally, our post-hoc analysis shows that in JVs where both technological complexity and equity concentration are low, partner change has a positive effect of JV financial performance. Altogether, our findings reveal that the effect of partner change in JVs is not universally negative, but that its performance effect depends on core JV characteristics and specific configurations of these characteristics.

In Chapter 3, we emphasize human capital value (referring to the strategic expertise that firms allocate to JVs’ director positions) as a so far underexplored resource dimension in JVs. Applying agency theory and resource dependence theory as theoretical foundations, we hypothesize that interfirm size diversity, environmental volatility and equity concentration (positively, negatively and negatively) influence human capital value. Our empirical analyses show consistent evidence that interfirm size diversity positively affects human capital value. In line with our hypothesis, we also find that JV’s equity concentration negatively affects human capital value. We demonstrate that both of these findings are robust across different model specifications, and also when taking an alternative dependent variable (i.e. when including all concurrent directorship
positions into the human capital value measure). Together, findings of this study highlight that resource dependence and monitoring needs that arise during interfirm collaboration determine JVs’ human capital value.

The empirical study presented in Chapter 4 emphasizes that faultlines (i.e. hypothetical lines that emerge from multiple overlapping subgroups) can have positive effects, which have remained so far unexplored in JV research. Building on insights from social identity theory, we hypothesize that overlapping gender and age subgroups among JV directors (i.e. partner-spanning faultlines) can decrease the hazard of JV termination by enabling boundary spanning among JV directors. Findings of our Cox model lend support for this hypothesis. We also show that these findings are robust to differences in JV size. Furthermore, we argue that the relational context in which the JV operates (i.e. prior ties between partners) moderates the stabilizing effect of partner-spanning faultlines. Results of our Cox model indicate that partner-spanning faultlines even increase the hazard of JV termination as the number of prior ties between JV partners increases. Together, these findings highlight that gender and age subgroups among JV directors can serve as a powerful source of stability in JVs, but that the benefits of relationship-building across JV representatives is difficult to exploit when JV partners have a history of prior collaboration.

5.2. Theoretical contributions

The objective of this dissertation was to further understand post-formation dynamics in JVs and shed light on directors involved on the micro-level of JVs. Our empirical studies presented in Chapters 2-4 contribute valuable theoretical insights for both of these
research directions. In this section, I first discuss our core contributions to JV research, specifically in the areas of post-formation dynamics and the micro-foundations of JV governance. Subsequently, I reflect on how looking beyond the “classic” theoretical perspectives applied in JV research can help develop JV research further.

First, our studies contribute novel insights to established research streams on JV dynamics and JV instability. Literature on instability examines post-formation dynamics that occur in the life cycle of inter-organizational collaboration, such as changes in partner configuration, termination of the collaboration and other major re-organizations (Yan and Zeng, 1999; Madhok, Keyhani and Bossing, 2015; Reuer, Zollo and Singh, 2002). A large part of this research focuses on understanding why post-formation changes occur, and has highlighted partner-level asymmetries and incompatibilities that drive post-formation changes (e.g. Kumar and Nti, 1998; Dussagge, Garrette and Mitchell, 2000; Inkpen and Beamish, 1997; Isidor, Schwens, Hornung and Kabst, 2015; Majchrzak, Jarvenpaa and Bagherzadeh, 2015; Greve, Baum, Mitsuhashi and Rowley, 2010). We contribute to this established research in two ways. First, we illuminate how micro-foundations influence JV instability. We do so by highlighting that subgroups among directors can foster boundary-spanning interactions across the representatives of JV partners and can act as a stabilizing force (Chapter 4). Second, we further existing research towards understanding the outcome of instabilities (Chung and Beamish, 2010; Bakker, 2016; Greve, Mitsuhashi and Baum, 2013). Specifically, we use strategic flexibility as a distinct theoretical lens that allows us to integrate both the positive and negative perspectives of post-formation partner change (Chapter 2). Additionally, we also
demonstrate the merit of taking a configurational perspective to studying post-formation dynamics, by highlighting that specific combinations of JV characteristics can also elicit a positive effect of partner change (Chapter 2). Altogether, findings of our studies show that some JVs’ are able to “harness” positive effects from instability (in terms of post-formation partner change) and that the micro-level of JVs holds so far unexplored opportunities to stabilize JVs (i.e. decrease the likelihood of termination events occurring).

Second, we shed further light on the multi-faceted nature of JVs by exploring the micro-foundations of JVs in general, and JV governance in particular. Research on governance examines how firms handle coordination and the mitigation of opportunistic behavior in their relationships. This established research highlights the advantages of both opportunism-centered (i.e. focusing on contracts) and relationship-centered (i.e. relying on trust and joint decision-making) approaches to governance (e.g. Gulati and Singh, 1998; Hoetker and Mellewigt, 2009; Faems, Janssens, Madhok and Van Looy, 2008; Madhok, 1995; Inkpen and Curall, 2005; Reuer and Ariño, 2005; De Man and Roijakkers, 2009). Adding to this research, we highlight a complementary, “micro-foundations perspective” of JV governance – one that emphasizes the role of individuals in addressing JV governance issues. In particular, our research shows that the formation of subgroups among directors offers an important opportunity to increase cohesion within the joint decision-making group of JVs (Chapter 4). We also emphasize that monitoring carried out by directors can be redundant and costly in JVs characterized by high equity concentration (Chapter 3). By doing so, our insights also contribute to an emerging
research stream in JV governance that emphasizes directors in JVs as a formal governance solution (Salvato, Reuer and Battigali, 2017; Reuer, Klijn, van den Bosch and Volberda, 2017; Cuypers, Ertug, Reuer, and Bensaou, 2017).

On a broader level, by applying theoretical perspectives that are to a large extent novel to JV research, we are able to illuminate novel aspects related to post-formation dynamics and micro-foundations of JVs that extant research has so far left uncovered. Generally speaking, classic JV research has mostly applied transaction cost theory (e.g. Hennart, 1988; Kogut, 1988a, 1988b), real options theory (e.g. Kogut, 1991; Reuer and Twong, 2005) and the knowledge-based view (e.g. Inkpen and Beamish, 1997; Inkpen and Dinur, 1998) in its theorizing. These theoretical perspectives provide important insights about how JV partners can limit opportunism within - and generate knowledge from - such inter-organizational relationships. Meanwhile, these theoretical perspectives tend to focus on a single level of analysis and thereby often overlook the multi-faceted nature of inter-organizational collaboration (Lumineau and Oliveira, 2018). In this dissertation, we highlight that insights from corporate governance research, research on subgroups, and research on strategic flexibility can provide novel vantage points for studying JVs across different levels. For example, by relying on the strategic flexibility perspective, we are able to explain why post-formation partner change can have both positive and negative performance effects in JVs, since this perspective points to organizational enablers or inhibitors that have not been commonly emphasized in JV research (Chapter 2). We argue that post-formation partner change has a negative effect on JV performance when a JV’s technological resources are difficult to reapply in changed circumstances and
the routines linking the components of the technology are difficult to “re-wire”. In a similar vein, Chapter 3 demonstrates that the resource dependence perspective and agency perspective of director selection offer valuable insights into resources that are situated on the micro-level of JVs (i.e. directors’ strategic expertise). Specifically, we use these two perspectives to identify relevant factors that influences JVs’ human capital value by triggering resource dependence and agency-related mechanisms. Finally, research on subgroups and social identity theory offer a valuable starting point for studying boundary-spanning individuals in JVs (Chapter 4). Insights from this perspective allow us to pinpoint boundary spanning benefits of subgroup membership that have so far remained underestimated in prior JV research. Our studies therefore highlight how adjacent research streams can provide valuable theoretical frameworks for studying novel phenomena in JVs.

5.3. Managerial implications

Before starting research for this dissertation, I spent three years working in the wind energy industry in (strategy and financial) analyst positions. These experiences have provided me with important insights about the industry, and served as the initial trigger for conducting the research presented in this dissertation. Specifically, I was driven to understand how firms in the wind energy industry could unlock the potential of collaboration with other firms. In this section, I would like to reflect on how conducting the empirical research presented in this dissertation has informed my perspective on interfirm collaboration in the wind energy sector.
During my work experiences, I have learned that although collaboration could be a relevant solution for some of the wind energy industry’s challenges, collaboration is hindered by the competitiveness inherent to the structure of the industry. On the one hand, the “top-down” structure of the industry - which focuses on the amount of wind energy that can be harnessed in a given region - pushes fierce price competition on firms. Demand for wind energy is largely determined on the regional level, which consequently puts large pressure on companies’ profit margins because they strive to offer the cheapest contract for supplying components or services. To this end, collaboration in joint innovations or joint construction of a wind farms could therefore be a relevant strategy, as it can increase visibility in production volumes and support cost-reductions along the supply chain. On the other hand, companies are often wary about “opening themselves up” to collaboration, because sharing information about their cost - and pricing strategies with other firms could come at the expense of losing out potential other projects to competitors. One of the experts I interviewed during the dissertation described similar concerns about collaboration with another energy company:

“[…] the problem [with working together in that wind farm project] was that [our partner] did not want to share any information. […] but I do not want to put all the blame on them. Even within our management there were people who did not want to collaborate with them. People who said ‘this company is our competitor, they even engage in non-clean energy technologies, we want nothing to do with that’. Luckily, there were also a group of people [within the organization] who said “well, he have to have a project partner, we have to work together [...]” [Interview with a project manager in a utility company, 2017]

Findings of our research suggest two core areas that can contribute to generating value from collaboration in the wind industry. First, our research indicates that collaboration between firms requires flexibility in order to stand the “test of time”. Wind
farm JVs are often subject to dynamic changes in their life cycle (such as the exit or replacement of a partner), owing to the fact that firms often have different ambitions and strategies for wind farm development. Our findings highlight that such structural shifts are detrimental in offshore wind farm JVs because these JVs might not have sufficient flexibility to adjust their routine interfaces and reapply their resources in new contexts. However, we find indication that partner change can increase financial performance in onshore wind farm JVs that have a dispersed equity structure (Chapter 2).

Second, findings of our research indicate that focusing on individuals could serve as a foundation for increasing the potential of interfirm collaboration in the wind energy industry. Specifically, individuals who represent the interests of their parent firms in collaborative projects can function as “boundary spanners” that can facilitate collaboration across organizational boundaries. In our research, we find that directors appointed to wind farm JVs can act as a stabilizing force by using observable similarities (such as age and gender) as a “bridge” towards representatives of other firms (Chapter 4). We also show that appointing experienced individuals to collaborative projects can be beneficial for firms engaged in dependence relationships (i.e. such that their partner is largely different in size or other characteristics) (Chapter 3). Meanwhile, our research findings also highlight specific challenges related to individuals involved in collaboration. For example, we argue that directors are less likely to engage in meaningful collaborative relationship across organizational boundaries when the partnering firms have joint history (Chapter 4). Similarly, our research indicates that experienced directors can even create redundancies and additional monitoring costs in JVs that have high
equity concentration (Chapter 3). Our findings therefore do not suggest that individuals are the “quick fix” to making inter-firm collaboration work; rather, we highlight the importance of the individual-level of collaborative projects. Taken together, I hope that practitioners involved in wind energy projects benefit from our research by taking new focus points for collaboration with other firms (i.e. flexibility and individuals).

5.4. Opportunities for future research

The theoretical and empirical insights from this dissertation can inform several avenues of future research on JVs. First, we have emphasized two promising research directions (i.e. post-formation dynamics and micro-foundations) and contributed to these directions through three specific research questions. Going forward, we encourage research questions at the intersections of these two research directions: studies that combine JV dynamics and the micro-foundations perspective in theorizing. For example, prior research highlights that, over time, individuals involved in JVs tend to develop a stronger identification with the JV than with their parent organization (Johnson, Korsgaard and Sapienza, 2002), which indicates that the disruptive effect of post-formation changes could be particularly salient on the micro-level. Similarly, future research could shed light on whether individuals (as valuable human capital resources) can serve as easily adaptable resources in the adjustment process following post-formation partner change.

Second, whereas the projects of this dissertation focus on single JVs, a growing stream of research on inter-organizational alliances examines multiple simultaneous alliances instigated by a focal firm, i.e. alliance portfolios (Wassmer, 2010). We encourage scholars to broaden the scope of our research to examining dynamic changes and micro-
foundations in the context of alliance portfolios. Research on alliance portfolios emphasizes that a focal firm can access important resources across their alliances (Wassmer, Li and Madhok, 2017) and that portfolios often undergo significant compositional changes over time (Asgari, Singh and Mitchell, 2017; Kavusan and Frankort, 2019). New research in alliance portfolios could therefore employ our insights by, for instance, analyzing which configuration of human capital resources are the most valuable across the portfolio; or whether a firm can take advantage of human capital resources as a way to counter compositional changes within the portfolio.

Third, by emphasizing that individuals are important contributors to JV governance, we hope to encourage further research towards directors involved in JV boards and the JV management team. For example, understanding the different roles played by JV directors in the process of collaboration has recently been highlighted as a relevant research question (Salvato, Reuer and Battigali, 2017). In this vein, future studies could explore whether JV directors’ ability to provide access to resources and carry out monitoring is dependent on the identity that they associate with their position within the JV parent. The agency perspective and resource dependence perspective of director selection (Chapter 3) and identity theory (Chapter 4) as presented in this dissertation could offer an important foundation for such research.

Finally, we hope to encourage future research studying the interplay between different levels involved in JVs. Although we have not set out to study this interplay, we found indication during our research that micro- and macro-level approaches in JVs can act as substitutes. For instance, we found indication that JV partners might prefer macro-
level tools for monitoring (i.e. equity concentration) rather than relying on monitoring being carried out by directors on the micro-level (Chapter 3). Similarly, in Chapter 4 we found indication that while prior relationship history between JV partners (i.e. the macro-level) can offer a basis for collaboration, it can overshadow the stabilizing effects of partner-spanning faultlines (i.e. the micro-level). We encourage future research to further explore interactions across JV levels, especially because prior research on inter-organizational alliances is often limited in connecting different levels of analyses (Lumineau and Oliveira, 2018). For example, future research could take a dynamic perspective to studying a firm’s broader collaboration networks. The wind energy context could be particularly valuable for such research, as firms in this industry are directly and indirectly connected to a broader network of firms participating in wind farm development (e.g. turbine suppliers, engineering contractors; banks and other financial institutions). In this vein, examining structural changes in the collaborative network could serve as an interesting extension of our research.

5.5. Concluding thoughts

In this dissertation, we provided novel insights into the dynamic and multi-faceted nature of joint ventures (JVs). We showed that structural changes often occur on the partner-level of JVs, but that such changes can have varying performance effects depending on JV characteristics relating to strategic flexibility (Chapter 2). We also illuminated the relevance of the micro-level in JVs: we showed that individuals appointed to JVs can address resource dependence and monitoring challenges that occur during collaboration (Chapter 3) and that they can also serve as the foundation for fostering
collaboration across JV partner lines (Chapter 4). We hope that our findings inspire further research on post-formation changes and the micro-foundations of JVs, and at the intersection of these promising research directions. We also hope that practitioners can apply our insights to address the competitive pressures inherent to the industry with a bottom-up approach that focuses on the individuals involved in collaborative projects.