3 Theoretical perspectives of internationalization in emerging high-technology industries - toward the industry life-cycle model of internationalization

This chapter aims at refining the findings of the case study chapter. It does not constitute a break from the previous chapter, it rather represents a continuation of the process of case-based research. As pointed out in the discussion of the methodological foundations of this study (section 2.1), case descriptions and analyses should ideally be ‘theory free’, allowing the researcher to capture the richness of the cases without bias. Only after tentative hypotheses have been drawn from the cases should theory, should the literature, be enfolded (Eisenhardt, 1989). It is an essential component of case-based hypothesis formation and theory extension that the tentative hypotheses be juxtaposed with conflicting and similar theoretical findings. Thus, the tentative hypotheses can be challenged, corroborated and, eventually, refined in such a way that together they serve as an extension to theory - i.e., in this study, an industry life-cycle model extension of internationalization theory.

The literature to be enfolded by confrontation with the case study results consists of a broad body of theoretical writings in the fields of internationalization, evolutionary industry emergence, and economic geography. All three of these streams of scholarly work are well established fields, yet rarely are they closely associated with each other. While a renaissance of locational and geographic factors can currently be witnessed in internationalization theory, the inclusion of evolutionary industry emergence theory may, at first glance, seem rather odd. But after all, this study has a special focus, and that is the concentration on the influence of industry emergence on internationalization.

Section 3.1 confronts the extant internationalization theories with the case findings. Due to the breadth of this discipline the section will focus on several of

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1 Dunning (1998) provides the most recent extensive summary of how the aspect of location has been resurfacing in internationalization theory, more precisely, in the theory of the multinational enterprise. In this article he explicitly points out the complex interdependencies that exist between all types of international business activity and geography.
the most prominent theoretical approaches. Section 3.2 turns to a discussion of how evolutionary industry emergence theory might contribute to the understanding of internationalization in emerging high-technology industries, and section 3.3 presents some thoughts on how economic geography may likewise offer support for the refinement of the tentative hypotheses. The discussion of both fields will also have to be restricted to the most prominent theoretical approaches due to the large size of these disciplines.

Finally, the chapter culminates in section 3.4. As the title of chapter 3 indicates, the entire chapter works toward an industry life-cycle model of internationalization. This final section of the exploratory work of this study ties together the case study results and the discussion of the three strands of theory. In doing so, a model is proposed that holds the promise to explain the internationalization patterns witnessed in the cases. The model thus introduces an extension of internationalization theory. In Yin's (1984, p. 21) terminology this inductively generated model, which is the result of case-based 'analytical generalization', will serve as a basis for future large sample 'statistical generalization' of internationalization theory.

3.1 Confronting extant internationalization theories with the case findings

The field of internationalization research is extremely heterogeneous. It is characterized by methodological and conceptual diversity that, on the one hand, adds to the richness and breadth of the field, yet, on the other hand, indicates the absence of a common theoretical base (Melin, 1992). This diversity is the result of the multidisciplinary nature of the field as well as of the internationality of the research itself.²

² Compared to most other fields of management or business administration as a whole, internationalization research does not exhibit a clear dominance of U.S. researchers. British and Scandinavian scholars have equally shaped international business research, in fact, the latter group has produced a 'Scandinavian school' of research that will stand at the center of subsection 3.1.2.