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The rise and fall of technology companies: The evolutional phase model of ST-Ericsson's dissolution

Joseph Amankwah-Amoah [a,*], Christopher Durugbo [b,1]

[a] Bristol University, School of Economics, Finance and Management, 8 Woodland Road, Clifton, Bristol BS8 1TN, England, UK
[b] University of Liverpool Management School, University of Liverpool, Chatham Street, Liverpool L69 7ZH, United Kingdom

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ABSTRACT

Although joint venture dissolution among technology firms has been recognised as a common feature of both the twentieth and twenty-first centuries, our understanding of the complex processes involved remains limited. This study advances entrepreneurship research on joint ventures by examining the dissolution process and factors that accelerate or hinder the process over time. Our study develops a unified sequential model that elucidates the complexities, processes and factors that lead to dissolution. We illustrate our theoretical analysis using the contemporary case of ST-Ericsson's (2009–2013) dissolution. Our study uncovered three distinct stages in the disbandment process. These stages provide insights on declaration of intent, forming of the dissolution team, distribution of assets and liabilities, and the aftermath. Our study highlights how an entrepreneurial venture so well-conceived can eventually dissolve after few years in operations. We outline the practical implications of the findings and contributions to entrepreneurship and technology foresight.

1. Introduction

Over the past three decades, literature has consistently shown that joint ventures (JVs) (Stuckey, 1983)[2] offer technology firms an opportunity to accumulate expertise, develop new products at a faster pace, exploit market opportunities and compete beyond their current scopes of operations (Deeds and Hill, 1996; Kyriazis and Metaxas, 2011). In the last two decades there has been a surge in scholarly works, suggesting that firms in the high-technology industry with specialism in areas such as software development, research and development, semiconductors, internet and telecommunications, have often opted to form JVs as a means of sharing risk, reducing costs and achieving sustainable competitive advantage (Hobday, 1995; Gulati and Westphal, 1999).

This is important given that the competitive advantage of high-technology firms often depends on being the first to acquire patents and intellectual protection – an awareness touted by some as the "winner takes all" principle (Deeds and Hill, 1996; Hoang and Rothaermel, 2005). Yet, scholars such as Killing (Killing, 2013) have argued that JVs pose a catch-22 for firms, citing examples of the Volvo–Peugeot–Renault JV for engine and transmission parts in the 1970s and the Rolls-Royce JV with Japanese firms in the 1980s to design and manufacture jet engines.

On the one hand, managers dislike JVs due to potential disagreements and creation of future competitors (Gomes-Casseres, 1987) and, on the other hand, there is strong evidence of the need for firms to leverage complementary resources through alliance formation to maintain competitiveness (Shi, 1998). Although several business historians have examined joint ventures among technology firms (Kyriazis and Metaxas, 2011; Pilkington, 1996), the issue of how firms dissolve ties over time has been largely overlooked. Indeed, the underlying

* Corresponding author. Tel.: +44 117 3317936.
E-mail addresses: Joseph.amankwah-amoah@bristol.ac.uk (J. Amankwah-Amoah), Christopher.Durugbo@liverpool.ac.uk (C. Durugbo).
[1] Tel.: +44 151 795 3621.
[2] JVs refers to "organizational and legal entit(ies) created when two or more separate groups jointly participate as co-owners of a producing organization" (Stuckey, 1983).

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mechanisms through which firms dissolve ties remains the least understood subject in general management and technology foresight.

Against this backdrop, the rich body of scholarly writings has focused mainly on factors that motivate firms to engage in JVs (Hennart and Zeng, 2002) with a few notable exceptions such as Peng and Shenkar (Peng and Shenkar, 2002) who have analysed JV dissolution by drawing insights from human divorce literature. As such, relatively few studies have examined the causes of dissolution and processes leading to dissolution (Polidoro et al., 2011).

Although some scholars have suggested that JV dissolution is more likely to occur when the parent organisations are rivals,[3] the issue of how such dissolution unfolds and what factors accelerate or hinder this process has been given limited attention. Indeed, our understanding of the JV dissolution process, whether planned or unplanned remains severely limited (Polidoro et al., 2011). This omission is surprising given that throughout history JV dissolution remains relatively common.

Our purpose in this study is to fill this void in our understanding by developing a unified sequential model to explicate the JV dissolution process and the factors that accelerate/hinder this process.

Our study makes two main contributions to the foresight and entrepreneurship literature. First, we integrate multiple theoretical lenses to develop a unified stage perspective on dissolution that elucidates the underlying complexities and processes involved. In so doing, we shed light on how changes in the business environment can prompt and precipitate disbandment of a joint entity (Lokshin et al., 2011). Second, the study moves beyond the existing streams of research that have focused on the main entrepreneurial factors that motivate JV formation to examine the processes and factors in dissolving ties in such inter-firm networks (Dhanaraj and Beamish, 2004).

We illustrate our theoretical analysis using the contemporary case of the disbandment of ST-Ericsson. We focus on ST-Ericsson's dissolution for two main reasons. First, it was one of the largest JVs in European corporate history with two major parent firms whose operations span across multiple countries. Second, although the JV was so well conceived, sudden changes in the business environment ultimately altered the founding conditions, culminating in the disbandment.

The rest of the article is organised as follows. The next section of the paper sets out prior studies on the rationale, causes and process of JV disbandment towards developing a unified framework. We then describe the approaches adopted to collect the data. The penultimate section sets out the key findings of the illustrative case of ST-Ericsson's dissolution. The final section outlines the implications of the study for practice and theory.

2. Joint venture: rationale and dissolution

Driven by our research focus, we began our theoretical development by scrutinising the rationale for JVs and identifying a pertinent model that reflects the process for JV dissolution. We particularly analysed the causes and processes of JV dissolution and used this insight to serve as the foundation for the development of a research model that offers a normative description for the stages that encapsulate the JV dissolution process.

2.1. The rationale for joint ventures

Broadly speaking, JVs are formed for two main entrepreneurial motives: offensive and defensive (Lorange and Roos, 1993). Offensive alliances are seen as a strategy to assemble resources and expertise that equip the joint entity to invade or pressure rivals in their current areas of operations. There is an accumulated body of literature that shows that such alliances offer technology firms an opportunity to exert competitive pressure on rival firms and thereby forcing them to maintain their current positions to avert exit (Lei, 1993; Mahmood and Zheng, 2009). Indeed, such alliances also offer technology firms an opportunity to confront competitors in their home markets to thwart any potential growth of competition (Cavusgil et al., 2012).

Interestingly, leading technology companies in industries such as biotechnology and telecommunications view strategic alliances as a means of acquiring new expertise and positioning themselves to outcompete rivals as well as better positioning themselves to respond to changes in the competitive landscape (Deeds and Hill, 1996; Hoffmann, 2007). Recent contributions to this line of research have suggested that by pooling resources and capabilities, organisations are able to leverage economies of scale and exploit opportunities in new technology sectors where both individual organisations have limited expertise (Polidoro et al., 2011). Thus, these organisations are able to utilise the alliance as a means of gaining market power and accessing key resources (Bae and Gargiulo, 2004).

On the other hand, the defensive strategy is one where firms employ JVs as vehicles to protect their market positions and improve competitiveness with a view to fending off attacks from rival firms (Lei, 1993). The strategy lays emphasis on using competitive weapons such as defining and setting industry standards, attaining control over key resources and countermoves to anticipate changes in competitive landscape and government policy.

Buoyed by technology foresight, the central argument is that technological alliances can allow the parent firms to gain first-mover advantage in emerging sectors by developing new products at a faster pace relative to rivals (Deeds and Hill, 1996). Although some studies have suggested that factors leading to JV dissolution can be deduced from those precipitating the formation, there is a growing view that dissolution is an outcome of much more complex processes which warrant further scholarly attention (Shi, 1998).

2.2. Joint venture dissolution: causes and processes

It is worth noting that there is no clear consensus on what factors lead to JV dissolution. That being said, a common theme has been to conceptualise the causes of JV dissolution into firm-level (internal) and market-based (external) factors. At the firm level, some scholars have suggested that poor due diligence prior to JV formation leads to unrealistic expectations of both parent companies about the market potentials and opportunities for the joint entity (Kogut, 2003a). The unrealistic expectations often create conditions for conflict to emerge as the single entity fails

[3] For an overview see (Pilkington, 1996).