AN ECOSYSTEM-LEVEL PROCESS MODEL OF BUSINESS MODEL DISRUPTION: THE DISRUPTOR'S GAMBIT

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ABSTRACT

Based on a longitudinal case study, this paper presents an ecosystem-level process model of the interlocking key activities of the business model disruptor, other ecosystem participants (customers, partners, media, analysts), and the incumbent. Together these constitute a strategic process of ecosystem evolution from incumbent-centered to disruptor-centered. We identify the phenomenon of a “disruptor’s gambit,” where the disruptor reveals its intentions early on through effective framing, followed by rapid adaptation of its business model to satisfy ecosystem needs. These processes generate a virtuous framing-adaptation cycle, where feed-forward and feedback enable rapid response to customers and partners, while engaging them as force multipliers during new ecosystem creation. Our findings suggest that framing constitutes a dynamic strategic process enabling disruptors to reduce uncertainty, dislodge powerful incumbents, and shape new ecosystems through business model innovation.

Keywords: disruption, business model innovation, framing, adaptation, ecosystem creation
“Walker, there is no road, the road is made by walking.”—Antonio Machado

INTRODUCTION

We live in an age with an increasing number of disruptions that impact how organizations and ecosystems operate (Ansari et al., 2016; Burgelman and Grove, 2007; Christensen, 1997, 2006; Danneels, 2004; Markides, 2006). Although there are several broad conceptualizations of disruption (e.g. Christensen, 1997; Tushman and Anderson, 1986), in this paper we limit our analysis to disruption defined as a process whereby a start-up with few resources is able to effectively challenge established incumbent businesses (Christensen et al., 2015, p. 46).

Sources of disruption include new technology (Adner, 2002; Burgelman, 2002), illustrated by Christensen’s (1997) study of the changing technology underpinning disk drives, and new business models (Casadesus-Masanell and Zhu, 2013; Kapoor and Klueter, 2015), exemplified by the disruptive impact of Amazon (Markides, 2006).

Disruptive new business models (BMs) are activity systems that include new partners and activities configured in a way that is unprecedented in comparison to existing incumbents (Amit and Zott, 2012). The inclusion of these new partners and activities can result in a new ecosystem, which we define as a network of interdependent organizations linked to or operating around a focal firm or a platform (Adner, 2017; Autio and Thomas, 2014).

Introduction of disruptive BMs is accompanied by high uncertainty for both the disruptor and participants in the new ecosystem that adopt the disruptive innovation. There are uncertainties about customer and partner needs, the viability of the new ecosystem’s value proposition and underlying technology (Autio and Thomas, 2018; Dattée et al., 2018; Ozcan and Eisenhardt, 2009), and its long-term sustainability in the face of incumbent response (Lieberman and Montgomery, 1998; Suarez and Lanzolla, 2005). As a consequence, the disruptor confronts the challenge of how to gain the support of ecosystem participants when
faced by such uncertainties (Ansari et al., 2016; Autio and Thomas, 2018; Dattée et al., 2018).

Several research streams explore how new ventures can reduce uncertainty. One stream describes how framing, or the process of constructing meaning that focuses audience attention on salient features (Cornelissen and Werner, 2014; Giorgi, 2017), can help articulate specific versions of reality and secure stakeholder support for the new ecosystem (Ansari et al., 2016; Gurses and Ozcan, 2015). This work identifies the use of distinctiveness (Hensmans, 2003) and public interest (Gurses and Ozcan, 2015) frames as potential mechanisms. Yet, while this work offers insights about how the disruptor can reduce uncertainty for ecosystem participants, it does not explain how the disruptor can adapt to and better fulfill the (uncertain) needs of the new ecosystem.

A second stream suggests that to reduce uncertainty about ecosystem participants’ needs, entrepreneurs can adapt their business model in an effort to better meet ecosystem needs (Doganova and Eyquem-Renault, 2009). For instance, studies suggest that experimentation can help fine-tune a new business model before scaling (Sosna et al., 2010), and these adjustments imply that BMs often evolve due to the paradoxes and tensions that arise during the ongoing entrepreneurial journey (Garud et al., 2017; Garud et al., 2014b). Yet, it is unclear how firms can effectively experiment with, and make adjustments to, their BMs while simultaneously framing their innovation in a convincing way to engage ecosystem stakeholders, especially when facing a strong incumbent.

Taken together, these research streams confirm that reducing uncertainty is a central task during disruptive BM innovation and provide insights into the strategies and actions by which firms either frame or adapt during disruption. But they leave open the question of how BM disruptors uphold consistent and engaging framing while at the same time adapting over time, in particular in light of reactions from other ecosystem participants and incumbents.
Understanding how BM disruptors align framing and BM adaptation is important as, on the one hand, framing needs to be consistent to have the desired effect (Garud et al., 2014b; Giorgi and Weber, 2015), while on the other hand, ongoing BM adaptation, typified by experimentation and adjustment, implies change to the subject of the framing activities. Thus, we ask: *How does a disruptive BM innovator align framing and adaptation of its business model over the disruption process?*

We investigate the early years of Salesforce (1999–2006), during which it emerged as the leader in on-demand customer relations management (CRM) software and instigated the emergence and development of the cloud ecosystem around the concept of software-as-a-service (SaaS). Through an iterative process of coding the available historical information, analyzing the existing literature, and broader conceptual reasoning about temporal and evolutionary dynamics, we develop a parsimonious process model of the role of framing and adaptation in BM disruption. Theoretically, we conceptualize the phenomenon of a “disruptor’s gambit”: the disruptor reveals its innovation and disruptive intentions at the outset, sacrificing secrecy to create visibility and initiate relations with potential early adopters. This strategic gambit leaves the incumbent a choice: either it responds, acknowledging the challenger, the new BM, and the emerging new ecosystem, or it refrains from doing so, and loses the opportunity to meaningfully participate in the emerging ecosystem. A fast incumbent response, on the other hand, could potentially hinder the disruptor, but risks legitimating the new BM (Garud et al., 2002; Hensmans, 2003).

When there is no incumbent response, the disruptor’s strategic gambit initiates a virtuous framing-adaptation cycle, a self-reinforcing process (Masuch, 1985) that generates ecosystem growth through two dynamic links. Feed-forward is defined as the link between the disruptor’s framing of the advantages of the new BM and its targeting of early adopters of its novel technology to stimulate the emergence and rapid growth of the new ecosystem.
Feedback is defined as the link between growing ecosystem adoption and continuous adaptation on the part of the disruptor to improve its BM. Early support of media and analysts helps establish the virtuous cycle for the disruptor, and a vicious one for the incumbent.

This work contributes three insights to the literatures on disruptive innovation (Ansari et al., 2016; Christensen et al., 2015), entrepreneurial framing (Gurses and Ozcan, 2015; Navis and Glynn, 2010), and ecosystems (Adner, 2017; Dattée et al., 2018). First, we demonstrate the strength of the disruptor’s strategic gambit in spearheading the disruption process. Setting in motion a virtuous framing-adaptation cycle, framing is blended with BM adaptation so that the disruptor promotes its novel technology and related BM to attract ecosystem stakeholders and at the same time adjusts its BM to gain and sustain stakeholder engagement in the new ecosystem. Second, we deepen the understanding of how disruptors can apply framing strategically in sequences of distinctiveness and leadership frames to create sustained impetus for the creation and growth of a new ecosystem. Finally, we add to our understanding of ecosystem formation and growth by extending the organization-level Bower-Burgelman (B-B) process models of entering a new business (Burgelman, 1983; Pratap and Saha, 2018) and exiting an existing one (Burgelman, 1996) to the ecosystem level. We elucidate the competitive dynamics of Salesforce versus Siebel in terms of the multi-level strategic leadership activities that determined the organization-level competitive stances taken by these companies during the disruption process. Further, and perhaps most importantly, applying the B-B process model’s logic of sequential and simultaneous actions at the ecosystem level shows how the evolution of the ecosystem-level disruption resulted from the actions of multiple parties with different interests in the disruption process. This allows us to contribute a novel multi-level process model that combines in one study disruptor- and incumbent-generated processes through which a new ecosystem evolves and attracts various types of
new players that serve a force multiplier function, as well as members from the old ecosystem.

**DISRUPTION THROUGH BM INNOVATION, FRAMING, AND ADAPTATION**

BM innovation (BMI) has been recognized as a source of disruption (e.g., Afuah and Tucci, 2001; Casadesus-Masanell and Zhu, 2013; Kapoor and Klueter, 2015; Markides, 2006). To better understand the BM disruption process, we first define some related concepts. A BM is a boundary-spanning activity system centered on the focal firm and reflecting how it intends to create value for customers and partners (Amit and Zott, 2001; Casadesus-Masanell and Ricart, 2010; Markides, 2006). BMs comprise three elements: content, structure, and partners. Content refers to the selection of value-creating activities to perform, structure to how activities are linked together, and partners to issues of who is in charge of what activity (Amit and Zott, 2001). BMI involves introducing novelty by adding new value-creating activities (i.e., new content), by bringing in new partners, and by linking value-creating activities in new ways (i.e., new structure), in competition with (or substituting for) the existing BMs of the incumbents (Amit and Zott, 2012; Moingeon and Lehmann-Ortega, 2010), resulting in the establishment of a new BM.

BMI often leads to the emergence of new ecosystems as changes in content, structure, and partners result in new constellations of interdependent organizations with distinct ecosystem value propositions (i.e., what value, how, and for whom it is created), and associated governance that determines who does what, who controls what, and how everyone benefits within the ecosystem (Adner, 2012; Dattée et al., 2018; Wareham et al., 2014). For instance, much of the disruption caused by Apple with the iPod/iTunes combination in music (Burgelman and Grove, 2007), by TiVo in U.S. television (Ansari et al., 2016), or by Amazon in online retail (Markides, 2006) is attributed to the development of a new ecosystem value proposition and associated governance created through BMI. This process is
characterized by high uncertainty (Ansari et al., 2016; Chesbrough and Rosenbloom, 2002; Dattée et al., 2018).

One stream of research suggests that new ventures often use framing to attenuate uncertainty associated with new ecosystem development by explaining innovations to third parties, such as customers, partners, journalists, or investors, to garner their support (Autio and Thomas, 2018; Doganova and Eyquem-Renault, 2009). This is often accomplished by the use of story-telling and cultural references to “make the unfamiliar familiar by framing the new venture in terms that are understandable and legitimate” (Lounsbury and Glynn, 2001, p. 549; see also Garud et al., 2014b). Research on framing used by organizations as a strategic persuasion process has been undertaken by scholars interested in social movements as well as researchers studying managerial and organizational cognition (Cornelissen and Werner, 2014). Social movement literature has demonstrated how collective action, often used by low-power players, can refocus actors’ attention and transform institutions through frames that offer new alternatives (Benford and Snow, 2000; Hensmans, 2003; Sine and Lee, 2009). The focus of organizational cognition research has often been on examining the role of top leaders, managers, and employees in enabling (or sometimes hindering) organizational transformations through skillful framing of the underlying issues (Fiol, 2002; Gioia and Thomas, 1996; Kaplan, 2008; Reger et al., 1994).

Only a handful of studies have examined how new ventures use framing with external actors (Ansari et al., 2016; Gurses and Ozcan, 2015; Navis and Glynn, 2010). Ansari and colleagues (2016) document how TiVo succeeded in disrupting the U.S. television ecosystem with the introduction of a digital video recorder through framing that both attracted end customers and reduced the threat to incumbents. Gurses and Ozcan (2015) find that framing about the public interest of pay TV enabled entrepreneurs to influence regulators in their favor when introducing pay TV to the highly-regulated U.S. television sector. Hensmans
(2003), in line with the theoretical work of Lounsbury and Glynn (2001), documents how Napster leveraged a distinctiveness frame, claiming differences with incumbents, during its attempt to disrupt the music industry.

Overall, this stream unpacks relevant frames used by entrepreneurs, such as distinctiveness (Hensmans, 2003) or public interest (Gurses and Ozcan, 2015), but its disparate strands offer little insight into how new ventures can overcome the high uncertainty about technology and the needs of ecosystem participants during the disruptive BMI process. Although framing is an important process, as it helps stakeholders to focus on relevant dimensions and reduces uncertainty endemic during the disruption process, a hurdle for the disruptor remains. While it is usually possible to detect what stakeholder needs remain unsatisfied, there is uncertainty as to how to best fulfill these needs through BMI that exploits a novel technology (Teece, 2018). Stakeholders (such as customers, partners, media, or analysts) can support the disruption, generating what we refer to as force multipliers—the actions of ecosystem participants that reinforce the disruption process started by the BM innovator (Burgelman and Grove, 2007).—but they can also remain indifferent, ignore, or even hinder the disruption if their needs are not satisfied.

A second stream suggests that to ensure stakeholder support of their disruption effort, entrepreneurs might need to adapt their BM so as to maximize relevance for evolving customer and partner needs (Doganova and Eyquem-Renault, 2009; O'Connor, 2002; Sosna et al., 2010). Adaptation is “an activity that involves choices and commitments, implementation, execution, and refinement of actions […] in an effort to more closely link the activities of the firm to the often-evolving demands of the environment” (Kiss and Barr, 2015, p. 1246). The business model literature suggests that entrepreneurs can adjust their BM through trial-and-error and experimentation to incorporate feedback from their environment (Andries et al., 2013; McDonald and Eisenhardt, 2017; Sosna et al., 2010). For instance,
Sosna et al. (2010) document how a Spanish dietary products firm introduced BMI by opening a network of dietary supplement shops staffed with professional dieticians. The company experimented with several shop layouts and constantly adjusted the new BM to customer feedback, opening only four outlets during the first five years to fine-tune the model before scaling. Entrepreneurs often need to adjust their BMs through dialogue with ecosystem stakeholders (O’Connor, 2002; Snihur et al., 2017), and these adjustments imply that BMs often evolve due to the paradoxes and tensions that arise during the ongoing entrepreneurial journey (Garud et al., 2014b). The need for BM adaptation is also implicitly present in the recent ecosystem literature: Dattée et al. (2018) find that ecosystem creators monitor and update the ecosystem value proposition and associated governance to ensure ongoing control. However, beyond these early insights, how BM disruptors with few resources, lacking legitimacy (Aldrich and Fiol, 1994; Lounsbury and Glynn, 2001), and facing an influential incumbent, undertake effective actions to adapt their BM to the needs of potential customers or partners during disruption is not well understood.

Taken together, the literature on entrepreneurial framing suggests that framing can be used by disruptors to articulate a specific version of reality that satisfies stakeholder needs and helps secure stakeholder support. The literature on BMI and some early ecosystem papers suggest that satisfying stakeholder needs is not straightforward, and disruptors might need to adapt their BM to better address emerging needs and different stakeholder requirements. However, how disruptors can effectively uphold consistent framing of solutions for ecosystem needs while adapting their BM to these needs to shape the environment in their favor has not been examined. This is an important gap, as framing needs to be consistent to have the desired effect (Garud et al., 2014b; Giorgi and Weber, 2015), while adaptation implies ongoing change to the subject of the framing activities as BM experimentation and adjustment occur. Our knowledge is still limited about how the disruptor
and the incumbent co-evolve with other types of actors, such as partners, media, or financial analysts, during the disruption process: do they follow a certain pattern to influence actors or tackle them all at once? The goal of this study is to complement and extend received knowledge by studying the interactions of the players involved in one major instance of BM disruption, and by creating an ecosystem-level process model of how a disruptive BM innovator upholds consistent framing while adapting its BM during the disruption process to shape a new ecosystem.

**RESEARCH METHOD**

Given the process nature of our research question, we followed the longitudinal theorizing method (Burgelman, 2011) by choosing an exemplary case (e.g. Danneels, 2010; Siggelkow, 2002) that illustrates the phenomenon of interest and enables theory generation and elaboration rather than theory testing (Lee, 1999; Siggelkow, 2007). The design was based on two in-depth cases (covering the disruptor and the incumbent) and multiple levels (disruptor- and incumbent-level processes, ecosystem-level responses, media and analyst coverage) to strengthen the richness and accuracy of our cross-level theorizing.

We examine the disruption to enterprise CRM software originated by Salesforce, which is particularly appropriate for several reasons. First, Salesforce disrupted enterprise CRM through BMI. Before Salesforce’s BMI, incumbents sold perpetual per-user licenses in conjunction with yearly maintenance and support fees (up to 20% of the capital cost of the software). Software also required the purchase of a database (provided by Oracle, IBM, or Microsoft) and server hardware, customization, training, and installation by the vendor or third-party consultants, and deployment at the customer’s premises. Over a couple of years from founding, Salesforce fine-tuned its BM to offer new BM content, which involved managing customer data on central servers hosted on the Internet (“the cloud”) instead of selling software deployed onsite. The initial costs of hardware and software licensing,
consulting, and maintenance fees were eliminated, replaced by a monthly subscription—an operating expense rather than a lump-sum capital investment. Salesforce developed a new BM structure by enabling customers or partners to create their own custom-built applications. Instead of time-consuming manual upgrades, Salesforce could upgrade its technology seamlessly in the cloud, without having to manage multiple versions. It also found new BM partners to deliver additional services to customers. In sum, Salesforce’s BMI, developed over several years, involved novelty in all three BM elements in comparison with the incumbents (e.g., SAP or Siebel), and contributed to the formation of a new ecosystem based on cloud computing that allowed for pay-as-you-go web services, or SaaS.

Second, Salesforce’s disruption of Siebel, the market leader, appears to follow the process described by Christensen. Several technological advances in the late 1990s provided the context for Salesforce’s BMI. The increasing speed of Internet connection at lower cost, advances in encryption technology to ensure safe data transmission, and the interactivity allowed by web page design and the Java platform (Afuah and Tucci, 2001) made it possible to sell applications and other services over the Internet, not only to consumers, but also to businesses. Salesforce leveraged these technological advances in its new BM, first targeting non-consumers in the guise of small and medium-size firms, and later attracting larger companies. Figure 1 illustrates the evolution of software revenues for Salesforce as compared to Siebel during the first years after Salesforce was founded. This figure also shows the lower revenue potential of Salesforce’s BMI, which suggests a reason for Siebel’s reluctance to respond to Salesforce.

Third, Salesforce enjoyed extensive coverage by the media and analysts, generating a large amount of data that helped to triangulate the effectiveness of Salesforce’s framing with ecosystem audiences. Enough time has passed since the Salesforce disruption, which began
in 1999, to provide several years of real-time archival data, such as company and competitors’ press releases, annual reports, and media and analyst coverage. These documents are an excellent source of insight into the contemporaneous dynamics of the disruption processes.

**Data Collection**

To study the dynamics of BM disruption over time we used a longitudinal design based on two cases, Salesforce and Siebel, and their interaction, documented in the archival data.

Following research on disruptive innovation from the disruptor’s perspective (Ansari et al., 2016), entrepreneurship research about the evolution of entrepreneurial journey (Garud et al., 2014b; Lounsbury and Glynn, 2001), and research about how ecosystem innovators influence the perceptions and actions of current and potential ecosystem participants (Autio and Thomas, 2018; Dattée et al., 2018), we collected archival data covering the disruptor’s actions and reactions from the incumbent and ecosystem actors. We used archival data including press releases, annual reports, and a book by Salesforce’s founder (Benioff and Adler, 2009), as well as teaching cases. We also searched Factiva, Business Source Complete, and Wall-Street Transcripts for media interviews with the CEO and top management team (TMT) for the two companies during the period 1999–2006 to corroborate the deliberate nature of framing and BM adaptation processes.

To evaluate audience (i.e., media, analysts) perceptions of framing, we collected press coverage (Gurses and Ozcan, 2015; Navis and Glynn, 2010) from specialized newspapers in technology news (e.g., CNET, InfoWorld, and CRM Magazine) and from generalist newspapers (e.g., Wall Street Journal [WSJ], New York Times [NYT], Washington Post [WP]), sourced from Factiva using the keywords Salesforce and Siebel. These were the leading technology and business newspapers of the time, providing active commentary about
the emerging cloud ecosystem. We also collected financial analysts’ reports from Thomson
One. The data sources are detailed in Table I.

[Insert Table I around here]

Archival data are appropriate to study our research question as the large quantity of
documents provides detailed insights into the evolution of framing and BM adaptation
processes and their interaction, relatively free of retrospective bias. Interviewing participants
today about events that occurred almost 20 years ago could potentially introduce recall bias
(Barr et al., 1992). A priori selection and years-long observations and interviews of managers
working for a disruptor and an incumbent are difficult to achieve.

Data Analysis

To study the interplay of the disruptor’s framing and BM adaptation, we followed an iterative
process of moving back and forth between theory and data, an approach that is appropriate
for theory elaboration using case data (Lee, 1999). This approach to theory elaboration is
conservative, as we base our inferences on publicly available archival information (e.g., press
releases, CEO interviews, media coverage from past years) captured close to the moment
when BM disruption was occurring. However, we acknowledge that we may be missing some
micro-processes happening within the disruptor and incumbent organizations not reported in
the archival data gathered, potentially limiting our insights.

We used the archival data to generate a chronology of events based on the evolution of
Salesforce framing and BM adjustments (reflective of adaptation), filling the gaps through
Benioff’s book, media coverage, analyst reports, and teaching cases. Each of the first two
authors reviewed the data to form an independent view of the accounts. We then synthesized
these data into a case narrative “reconstructing the unfolding of individual and collective
action patterns leading up to relatively unique events” (Burgelman, 2011, p. 594). We used a
similar procedure to compile Siebel’s history. Table II presents the abbreviated chronology.
Next, we analyzed Salesforce’s framing processes over time (Garud et al., 2014a). We used press releases to capture framing because they are usually carefully prepared to reflect corporate communications about key events or actions, issued at frequent and regular intervals, and recognized as a way for firms to present their views and frame issues, repeatedly used in past framing research (e.g. Hiatt et al., 2015; Navis and Glynn, 2010; Rhee and Fiss, 2014). Press releases contain succinct corporate descriptions, designed to present the organization to the reader through brief snapshots of how the organization wishes to be portrayed. Mapping changes over time in corporate descriptions can provide insight into new venture framing process (e.g. Navis and Glynn, 2010) and their temporality (Garud et al., 2014a). To do so, the second author analyzed the corporate descriptions of Salesforce in 535 press releases (1999–2006) and coded each description to differentiate it from the preceding one, using four categories: “Major Change,” “Minor Change,” “Extension,” and “No Change” (detailed in Appendix A1), resulting in 14 classes (a class denoting a major change). The coding inter-rater reliability was tested on a random sample of 53 releases (10% of the total) with the first author, resulting in a Cohen’s Kappa (Cohen, 1960) of 0.946. Next, both authors independently analyzed the corporate descriptions to identify framing statements. We used the same approach as Gurses and Ozcan (2015): a framing statement occurred when there was an interpretation of reality and a communication of this interpretation. The results of each author were then compared and any discrepancies discussed and resolved. We identified two broad frames in our data: “distinctiveness” and “leadership,” used sequentially by the disruptor to encourage ecosystem adoption. We elaborate on them in our findings.

To study Salesforce BM adaptation processes, we focused on various actions undertaken by the company to adjust its business model. Following the literature on strategic adaptation (Kiss and Barr, 2015; Zott and Amit, 2008), we examined the company’s press releases,
annual reports, TMT interviews, and founder communications and book with respect to the changes implemented in the BM over time. The first two authors independently reviewed the case data and listed changes and updates to the BM elements (content, partners, structure). The results of each author were then compared and any discrepancies discussed and resolved.

Table III outlines Salesforce framing sequences, and Figure 2 illustrates Salesforce adaptation of its BM content, partnerships, and structure over time.

[Insert Table III and Figure 2 around here]

Next, second-order analysis of the data enabled us to abstract ongoing processes at the incumbent and ecosystem levels. To develop a process model of disruptive innovation we went back to the literature and adapted the multilevel process model of Bower (1970) and Burgelman (1983, 1996). This model is useful to examine the pattern of activities by actors that produce higher-level outcomes. For instance, the process model helps untangle the pattern of activities exercised by managers positioned at the top-, middle-, and operational levels of organizational hierarchy that contribute to the strategic business exit at the organizational level (Burgelman, 1996). We adapted this model to study ecosystem-level outcomes, such as the emergence of the Salesforce cloud ecosystem, by disentangling the pattern of activities exercised by various ecosystem actors, such as the disruptor, incumbent, customers, partners, media, etc. The transposition of the B-B process model from the intra-organizational to the ecosystem context helps elucidate the generative mechanisms of ecosystem evolution by showing how the activities of ecosystem actors combine to provide strategic outcomes at the level of the ecosystem (rather than the organization). Thus, our level of analysis is the ecosystem, and the unit of analysis is the process (or processes) associated with BM disruption. The process model helps us examine the interactions, alignment, and misalignment of distinct ecosystem actors during disruption, its key advantage being the depiction of simultaneous as well as sequential activities that might result in non-linear (e.g.,
circular or iterative) dynamics. This is particularly important in the case of disruptive innovation, documented often to involve a time lag between the disruptor’s and the incumbent’s actions (Christensen, 1997; Christensen et al., 2015).

The B-B process model, as originally developed, consists of both core and overlaying processes that encompass the activities of managers at different hierarchical levels. The core processes consist of definition and impetus, and involve activities that articulate and maintain organizational change. Given that our process model considers how the processes initiated by the BM innovator interact with the incumbent and other actors, such as customers, partners, media, etc., we consider the core processes to consist of the disruptor’s and incumbent’s framing. In the original model, the overlaying processes consist of the strategic and structural context, which make up the context in which change occurs inside the organization (e.g. Gilbert, 2006; Pratap and Saha, 2018). As we lift the level of analysis from organizational to ecosystem, we consider two contextual aspects: disruptor’s and incumbent’s ecosystems, which are originally separate from each other, but over time co-evolve in an interlocking fashion as customers and partners migrate from the incumbent’s to the disruptor’s ecosystem.

Building on the B-B model, we identified the processes enabling the creation of a new ecosystem around Salesforce’s BMI, culminating in a model of BM disruption dynamics. We refined this model through several iterations between theory and data, ongoing dialogue between the authors, and by comparing our findings with the extant literature on ecosystems, disruptive BMI, and entrepreneurial actions. This helped identify similarities and differences between disruptor- and incumbent-generated processes to raise the generalizability and abstraction of our findings (Burgelman, 2011; Klag and Langley, 2013).

**FINDINGS**

Our research poses the question: How does a disruptive BM innovator align framing and adaptation of its BM over the disruption process? Our data analysis presented below suggests
that the disruptor initiates a strategic gambit revealing its innovation and disruptive intentions through sequences of distinctiveness and leadership frames while continuously adapting its BM to the needs of the emerging new ecosystem. These processes constitute a virtuous framing-adaptation cycle\(^9\) for the disruptor, while the incumbent’s strategic neglect of the disruptor leads to a vicious framing-maladaptation cycle for the incumbent.

Figure 3 illustrates our process model of BM disruption by depicting the main constructs and the links between them. The first link, a feed-forward process representing disruptor’s framing, connects disruptor’s original BM and customers, partners, media, and analysts participating in the emergence of a new, disruptor-centered, ecosystem. The second link represents the feedback relationship between the new ecosystem stakeholders’ response to the disruptor’s framing and disruptor adapting its BM to the new ecosystem needs. This led us to an important insight, namely that disruptor framing to the new ecosystem stakeholders and the adaptation of its BM in response to their needs constituted a virtuous framing-adaptation cycle that sustained increasing adoption of the disruptor’s BM. The third link represents the incumbent’s framing, a feed-forward process directed to the incumbent’s ecosystem stakeholders. The last, fourth, link represents the incumbent’s maladaptation to the changing ecosystem needs due to constraints from the incumbent’s (previously successful) BM (see Figure 1 for evidence). The interplay between incumbent’s framing and maladaptation of its BM to the changing ecosystem needs constitutes a vicious framing-maladaptation cycle that sustained increasing abandonment of the incumbent’s BM. We explain each process (disruptor framing, ecosystem reaction, disruptor BM adaptation, and incumbent framing and maladaptation) below; Appendix A2 provides supporting evidence for each link.

[Insert Figure 3 about here]
Disruptor Framing

Our data analysis suggests that the disruptor iterated between two frames: a distinctiveness frame, where the disruptor emphasized unique characteristics of its offering, and a leadership frame, where the disruptor accentuated its leadership of the new ecosystem. These frames were used sequentially, beginning with the distinctiveness frame (Table III).

From founding in March 1999 until mid-2000 Salesforce focused audience attention on how the company was distinct, dramatizing differences with existing offerings. For instance, Salesforce claimed repeatedly it would “revolutionize the delivery of enterprise-class applications via the Web” and “make software obsolete” (press releases [PR] from 02/00 to 08/00) through “a software industry revolution” (PR 02/00). The “No Software” distinctiveness frame was embedded in artifacts and practices: in contrast to traditional enterprise software sales techniques (high-pressure salesmen visiting customers), Salesforce used a telesales team and a phone number of 1-800-NO-SOFTWARE. The marketing campaign was titled “End of Software,” premised on the notion of waging war against traditional software. This original framing did not elicit interest from Siebel’s (most profitable) customers and Siebel’s sales continued growing until 2001 (Figure 1), but it did resonate with a sufficiently large number of small and medium firms that perceived the value of the new BM and started to contribute to the new ecosystem.

In May of 2000 Salesforce shifted to a leadership frame (Table III), asserting leadership of the new emerging ecosystem. Press releases emphasized the honors awarded, noting that awards “recognized [them] for technological achievements, leadership, and performance” (PR 05/00). This culminated with a series of “market leader” press releases, celebrating the achievement of 25,000 subscribers: Salesforce exulted that it was “the market leader” (PR 10/00) before backtracking to being “a market leader” (PR 11/00). Overall, framing was
toned down from “revolution and rebellion” to claims of market leadership for “traditional enterprise software as an online service” (PR 02/01).

The distinctiveness frame was taken up again from May 2001 until June 2003 (Table III). Press releases emphasized how customers were losing with the incumbent due to “the failure rates and massive implementation and maintenance costs” (PR 11/01) and that “Salesforce offers a viable alternative to CRM software products without the cost and risk” (PR 12/01). Now Salesforce had enough impetus and its value proposition was appealing enough to claim distinctiveness not only with the overall industry, but specifically referencing the main incumbent with the objective to discredit the central player in the old ecosystem. Siebel references were included in two out of five releases,\(^{10}\) such as highlighting that one of the new customers by “choosing Salesforce over Siebel Systems, sees an increase in productivity for approximately 300 users worldwide” (PR 12/01) and that “Salesforce has added more customers than have Siebel, PeopleSoft, Oracle, and SAP combined” (PR 04/02).

In the last frame iteration, the leadership frame replaced distinctiveness again from July 2003 onwards (Table III). The disruptor reframed itself as the “World Leader” (PR 07/03), with a renewed emphasis on the awards the company, its technology, and executives were receiving, and pointing out dominance over the competition. Examples include announcing that they were the “only company to receive awards in the following three categories: Enterprise, Midmarket, and Small Business Suite CRM” (PR 10/05), “have been given top marks in the Customer Respect Index” (PR 06/06), and that “Marc Benioff has received a World-Class Innovator award from DEMO, in recognition of his success” (PR 02/05).

**Ecosystem Reaction**

Disruptor framing engaged force multipliers in the form of customers, partners, media, and analysts who positively reacted to the disruptor’s strong rhetoric, constituting the dynamics of the new ecosystem creation process (Figure 3). We inductively derived the schematic
representation of ecosystem reaction, grounded in the B-B process model, by mapping the activities of different ecosystem stakeholders onto the actor-level framing and the ecosystem-level evolution from the incumbent’s old to the disruptor’s new ecosystem, schematically represented in Table IV. While these processual concepts remain somewhat rudimentary (Burgelman, 2011), they are tightly derived from our data (detailed in Appendix A3) and helped us reach a higher level of conceptualization (Figure 3).

[Insert Table IV around here]

Salesforce’s early customers were small and medium enterprises (SMEs), primarily concerned with better software to support selling activities and reduce IT costs; partners (mainly sales and distribution and system integration companies) were concerned with developing their own value propositions inside the new ecosystem (hence their concern with openness); media (general business and specialized technology newspapers) were primarily concerned with providing a coherent and comprehensible account of ecosystem evolution in an engaging manner; and analysts (financial and technology) were concerned with investigating the value creation potential of various offerings (from Salesforce, Siebel, etc.).

The disruptor’s strategic gambit sequencing distinctiveness and leadership frames led to resonance (Giorgi, 2017) from SMEs that could not afford the incumbent’s offering and were willing to try the new ecosystem (Table IV). Early customers, such as Blue Martini, declared: “We were literally up and running on Salesforce within a week” (Forbes, December 22, 1999). Other early customers, such as e-Travel, stated: “We love the versatility and flexibility of having a subscription-based service that is economical and easy to use” (PR 06/00). By 2004, executives from e-mail-disaster-recovery firm MessageOne claimed: “We have fervor and we have become evangelists” (Fortune, December 13, 2004). The same year, Deutsche Bank analysts explained: “Promises of low total cost of ownership, expense predictability, and high ROI resonate well with customers in a difficult spending environment.”
Our data suggested that Salesforce framing also resonated with partners interested to participate in the new ecosystem, who signed the first agreements with the disruptor (Table IV). For example, an early sales and distribution partner, IBM, declared: “Salesforce just has an outstanding application that is right in the sweet spot of the market” (NYT, June 05, 2000), later claiming that their partnership “is going to be much more than a small but important area for us” (Fortune, December 13, 2004). Similarly, MasterCard stated: “Customers gain big business advantages by [MasterCard] partnering with such innovators as Salesforce” (PR 11/00) and Sprint affirmed that their partnership with Salesforce “offers an invaluable tool for sales teams that require mobile solutions” (eCRMGuide, January 01, 2001).

At the ecosystem level, our analysis suggested that this resulted in customers adopting the new ecosystem value proposition (Table IV). Salesforce experienced explosive exponential growth: from 100 subscribers in 5 customer organizations in November 1999, there were over 20,000 subscribers by October 2000, and by August 2005 there were 308,000 subscribers from more than 16,000 organizations (Figure 2). Once SunTrust Banks, Inc, a Fortune 500 company and one of the US’s largest commercial banks, became a customer in 2004, more large customers followed. Many came from the incumbent’s old ecosystem: for instance, Workshare reported they replaced “Siebel on-premise CRM with Salesforce on-demand solution [due to] its cost effectiveness and ease of use” (PR 07/05).

Partners began extending the new ecosystem with new offerings, such as real-time data about different firms from Hoover and information on funding sources, legal issues, and technology from Fortune (Table IV). By 2002, partners provided system infrastructure integration with BEA Systems, Borland, Microsoft, and Sun. By 2004, the new ecosystem was further extended with consulting services to help customers successfully design and implement customized CRM. With the launch of AppExchange in 2005, the ecosystem
expanded again as many new partners designed and deployed extensions, such as on-demand Adobe PDF creation and voice-enabled Skype integration (PR 01/06).

Our data suggested that media *amplified* Salesforce framing making it more persistent (Gray et al., 2015, p. 120), and *promoted* the new ecosystem (Table IV), upholding the disruptor’s strong rhetoric through frequent and favorable coverage, which provided visible public expression of approval. Initially, the media reacted to the sheer newsworthiness of the various interactions of Salesforce and Siebel (particularly the guerrilla marketing and provocative advertising), depicting them as a David-and-Goliath battle (*CNET*, February 22, 2000). Capitalizing on the media attention, Salesforce deliberately cultivated relations with journalists to amplify its framing (Benioff and Adler, 2009, p. 42). For instance, Salesforce was named “Cool Company of 2001” by *Fortune*, followed by many similar awards, which Salesforce promptly integrated in its framing rhetoric (see Appendix A2 for details).

The evidence from the analysts suggested that they engaged in *comparisons* between the disruptor and the incumbent (Table IV). According to Morgan Stanley, by 2002 over the previous two years more companies had chosen Salesforce for their CRM solution than any other vendor including Siebel (PR 02/02). In 2004 UBS concluded that “Salesforce has about a 12-24-month lead in its product offering and it will take a while for Siebel to be a stronger competitor in the hosted market.” Forrester similarly put Salesforce’s value proposition and the new ecosystem developed around it in front of Siebel’s in all categories in 2005, and in 2006 AMR Research ranked Salesforce as the market share leader.

Simultaneously, ecosystem stakeholders were reacting to the incumbent’s framing. Our analysis revealed that both customers and partners *equivocated* by beginning to question their CRM provider (Table IV). *CRM Magazine* noted that many customers were “very disappointed” and were “saying ‘never mind’ to CRM” (July 2002). In 2003, it was reported that Siebel customers were “waiting to see what Siebel has to offer first” (*CNET*, October 20,
2003). By 2005, many Siebel customers were asking analysts and consultants if they should “go forward with an additional module or should I look to replacing my ERP provider instead?” (CRM Magazine, October 2005). Similarly, partners began to question Siebel framing as the leading provider of CRM, as layoffs at Siebel reduced the size and capability of the alliance management teams and journalists noted that “at one time, Siebel was the fair-headed child of the software industry… and everyone wanted to be a partner. Siebel is not in the same position today” (CNET, August 06, 2003).

By 2002, customers and partners started to abandon the old, incumbent-centered ecosystem (Table IV). For instance, in 2003 Travelex migrated from Siebel to Salesforce (PR 01/03), while Esker successfully deployed Salesforce in 90 days after failing to implement Siebel for three years (PR 12/03). Between 2002 and 2003 the number of Siebel partners shrunk from 700 to 360 (CNET, August 06, 2003), while those partners that remained supported both the incumbent’s and the disruptor’s CRM offerings. Accenture, Siebel’s main “preferred” partner since 1995 (Sull, 2001), signed an agreement with Salesforce in 2005. Analysts at Prudential Equity commented the same year: “It is interesting to find even some of Siebel’s largest system integration partners of the past are now taking a strong look at building a new relationship with Salesforce.”

Our analysis revealed that media began criticizing Siebel after 2001 (Table IV). Siebel was already not well-liked by journalists through Siebel’s habit of separating them from customers at conferences and “leading them around like sheep” (Benioff and Adler, 2009, p. 41). Journalists were willing to demote the incumbent’s old ecosystem pointing out that some are “skeptical about Siebel’s claim of a 100% success rate” (Business Review Weekly, August 08, 2002), that “Mr. Siebel is being forced to eat some more humble pie” (WSJ, October 02, 2003), and that Siebel was “once the dominant player in the customer relationship management software segment” (WSJ, April 28, 2005).
Analysts *compared* the disruptor’s and the incumbent’s value proposition, favoring the disruptor (Table IV). For instance, Datamonitor wrote in 2005: “Siebel’s On Demand product has technical deficiencies compared to competing software products … [it] is weak in marketing, lead management, and real-time production reporting.” Credit Suisse confirmed the same year: “The company also does not seem to have the DNA to go after the On-Demand space.” The poor performance of Siebel was devastatingly chronicled in 2006 by analysts at William Blair & Company, who reported: “Upshot was a real competitor three years ago, but being bought by Siebel caused the company to disappear competitively.”

**Disruptor BM Adaptation**

Our data analysis suggests that Salesforce continuously adapted its BM content, partnerships, and structure to the needs of the new ecosystem (Figure 2), in particular an increasing need for customization and ease of use of software for customers, and an increasing need for openness to integrate partners’ value propositions within Salesforce BM for partners.

Salesforce took advantage of the technological opportunities afforded by the Internet to integrate the new cloud technology into an appealing value proposition and monthly billing ($50 per month per user) corresponding to the subscription revenue model. While cloud technology allowed such billing, this was not part of other CRM companies’ BMs. Through feedback during tours and conferences, real-time information about software use, and a tool called “BugForce,” where customers could report bugs and request features, Salesforce continuously adjusted its BM content to customer needs, for instance with the “Try & Buy” introductory offers (Figure 2). Originally, it offered a single product, sales force automation, which in 2002 was developed into “CRM applications” and an Enterprise Edition (Figure 2), launched to target larger and more complex customers, often already belonging to Siebel’s ecosystem. BM structure evolved to allow increasing customization over time: both basic and subsequently advanced customization features allowed users to create mini-applications.
With increasing customer adoption and feedback, the customization capability subsequently evolved significantly with sForce in 2003, CustomForce in 2004, and MultiForce in 2005 (Figure 2). As Salesforce CFO explained in an interview in 2002: “Since you are connected with your customer every day, you’re more sensitive to what’s important, and the feedback they give allows to react quickly.”

BM partnerships continually increased in number and quality, supported by an online forum, and partner accreditations such as “Service Partner,” “SForce Developer,” “Microsoft developer,” etc. (Figure 2). The technological advances of the Internet allowed for increased openness of the BM as the disruptor recognized the usefulness of bringing other ecosystem players on board. Salesforce increased openness through the introduction of free Application Programming Interface (API) in 2000, which allowed access to the platform using other software products and enabled partners to extend the ecosystem through their own value propositions. The disruptor continued to embed the cloud technology into its BM by launching a marketplace for applications in November 2004, enabling developers to sell applications, a precursor to the fuller-featured AppExchange released in 2005 (Figure 2). There was a rapturous media response, with Forbes describing AppExchange as the “iTunes of business software,” and BusinessWeek as the “eBay for software.”

Incumbent Framing and Maladaptation

The incumbent developed CRM software and built an ecosystem around it with its own customers and partners, mainly established firms from different industries, rather than the SMEs of the disruptor. During the new ecosystem creation around the disruptor, the incumbent continued framing around “You won’t get fired for choosing Siebel” (see Appendix A2 for more details). Siebel maintained its existing activities, neglecting evolving customer and partner needs for increased customization and openness until October 2003, when it finally launched its own on-demand online offering, and started to respond to
Salesforce in its press releases only in 2004. Although the functionality was viable from the BM content perspective, the later release to market meant that the necessary BM structure and partnerships, particularly increased openness with partners and customization options for customers, were not as developed, and the number of BM partnerships was low compared to the disruptor, confirmed by media and analysts (Appendix A3). Our data analysis revealed that few updates to this BM were implemented as the incumbent continued at the same time to invest in its existing higher-margin licensing-based BM (Yoffie, 2016).

Two explanations can be provided for the maladaptation of incumbent’s BM to the new ecosystem. First, Siebel’s revenues were going up dramatically between 1999 and 2000 with its original BM while Salesforce was initiating BMI (Figure 1). There was probably a rational tension at Siebel between the more profitable core licensing-based BM and the new cloud-based BM, which only promised to make money (and less of it) with SMEs. Second, the lack of urgency for decisive action in the new ecosystem might also be attributed to the incumbent being challenged by both Oracle and SAP in its market for CRM software. It was probably rational for Siebel to initially view the threat from Oracle and SAP as more serious than that from Salesforce, which targeted a different customer group. The resulting strategic neglect for the new ecosystem prevented repeat engagement with evolving customer and partner needs to gain insights.12

The evolution of the ecosystem’s center from the incumbent to the disruptor generated a vicious cycle for the incumbent (Figure 3), as its maladaptation to the evolving customer and partner needs led to previously supportive media and analysts becoming harsh critics and eventual customer and partner abandonment of the old ecosystem for the new (Table IV). This led to the increasingly decreasing relevance of the incumbent for the new ecosystem and made it even more difficult for the incumbent to fully participate in it (Figure 1). The same
force multipliers (media, analysts) that contributed to the disruptor’s virtuous cycle also contributed to the incumbent’s vicious cycle (Table IV).

**DISCUSSION: THE CONTRIBUTIONS OF OUR STUDY**

Our key insight concerns uncovering two symmetrical processes unfolding during BM disruption. The disruptor’s strategic gambit leads to the virtuous framing-adaptation cycle for the disruptor. The incumbent’s strategic neglect leads to the vicious framing-maladaptation cycle for the incumbent. These two symmetrical processes (Figure 3) lead to asymmetrical results in terms of the disruptor’s new ecosystem growth at the expense of the incumbent’s old ecosystem (Figure 1).

The BM disruptor accomplishes its strategic gambit through framing to create visibility, develop credibility, and initiate relations with ecosystem stakeholders through the broad strokes of the distinctiveness and leadership frames (Table III). At the same time, the disruptor carefully and continuously adapts new BM content, structure, and partnerships to the ecosystem needs (Figure 2). The disruptor used holistic framing (e.g., being “different,” a “revolutionary,” or a “market leader,” see Table III) rather than point out specific elements of its BMI (new content, structure, or partners, see Figure 2). The holistic frames of distinctiveness and leadership were coherent over time, which contributed to the disruptor’s increasing credibility and sustained appeal of the new ecosystem. At the same time, disruptor framing did not over-promise on particular features and allowed the flexibility for ongoing BM adjustments during ecosystem emergence.

Our findings shed light on the BM disruption dynamics, explaining how the BM disruptor aligns its framing and BM adaptation into a virtuous cycle. This study suggests theoretical and empirical implications for the way scholars account for the disruptor’s success, think about framing and frame sequencing processes, and, consequently, understand and study the shaping of new ecosystems.
Disruptor’s Strategic Gambit

Our study contributes in an important way to the still limited literature of disruptive innovation from the disruptor’s perspective (Ansari et al., 2016). Especially scarce are empirical studies that directly examine the micro-processes that link the disruptor’s actions to the emergence of new ecosystems. An overarching contribution of our study is the recognition of the importance of recursive and interlocking relationships between the disruptor’s framing efforts, BM adaptation, and the evolution of the new ecosystem (Figure 3). We conceptualize this phenomenon as the “disruptor’s gambit”: a disruptor introducing a new BM sacrifices secrecy by forcefully proclaiming its arrival and disruptive intentions to create visibility, reduce uncertainty for carefully targeted ecosystem stakeholders, and initiate a virtuous framing-adaptation cycle. If the incumbent does not respond, which would validate the challenger as a competitor, and avoids the lower profit potential of the new ecosystem (i.e., strategic neglect), the challenger consolidates dominance of the newly emerging ecosystem and extends it to attract the incumbent’s stakeholders, leaving the incumbent increasingly unable to catch up.

Our analysis suggests that to orchestrate disruption, the disruptor needs to deploy both rhetoric for effective framing and BM adaptation for in-depth BM improvement (Figure 3). Rhetoric represents the disruptor’s ability to persuade customers, partners, media, and analysts of its relevance and credibility to start the virtuous framing-adaptation cycle and acquire legitimacy with stakeholders involved in the old ecosystem (Table III). BM adaptation represents the ability to improve the BM to fit the new technology with ecosystem needs (Figure 2). The use of rhetoric and the initial development of a minimally viable BM served to gain first customers and partners, who served as test subjects for the subsequent BM adjustments that appealed to a broader set of actors, including the incumbent’s large enterprise customers. The insight here is that the disruptor has to align its framing and BM
adaptation in a virtuous cycle to grow the new ecosystem around BMI, using holistic framing of BM advantages, which might involve discrediting existing competitors, and at the same time keep the flexibility to iron out details through continuous BM adaptation. The sustained effectiveness of the virtuous framing-adaptation cycle is dependent on the new technology and associated BM delivering quickly enough on what the framing promises.

**Framing and Frame Sequences During Disruption**

Although the framing literature has emphasized the tactical use of motivational, prognostic, and diagnostic frames in change efforts (Benford and Snow, 2000; Weber et al., 2008), more remains to be learned about which specific framing strategies could be persuasive during disruption, why, and when. In light of this, another contribution of our study relates to highlighting the likelihood of the importance of the sequential use of distinctiveness and leadership frames for the disruptor’s success.

The early use of the distinctiveness frame is in line with the proposition of Lounsbury and Glynn (2001) that entrepreneurs who introduce competence-destroying innovations focus on establishing their venture’s distinctiveness. Interestingly, we find that the disruptor moved from a distinctiveness frame aimed at quickly generating visibility, to a leadership frame that legitimized the new emerging ecosystem and positioned the disruptor as a credible expert and central ecosystem architect (Table III). This process is similar to the path followed by celebrity firms described by Rindova and colleagues (2006, p. 63), with a key difference: the market leadership frame enables the disruptor to create a new ecosystem rather than shift the existing industry norms in its favor.

The use of leadership frame has so far received limited attention in the entrepreneurial framing literature (e.g. Gurses and Ozcan, 2015; Weber et al., 2008), which has focused primarily on the trade-off between distinctiveness and conformity (Navis and Glynn, 2010) or disruptive and sustaining frames (Ansari et al., 2016). However, some scholars have
recognized that “a sizeable proportion of entrepreneurial firms portray themselves as established leaders” (Martens et al., 2007, p. 1111). Hence, it may not necessarily be the salient terminology and ideas from public discourse (Gurses and Ozcan, 2015; Hensmans, 2003; Weber et al., 2008) that matter most for the disruptor’s success, but rather the skillful sequential manipulation of distinctiveness and leadership frames.

This sequencing of distinctiveness and leadership frames suggests a temporal approach to explain how new ventures might achieve “optimal distinctiveness” (see Zhao et al., 2017, for a review) by first claiming uniqueness, and then rapidly asserting ecosystem leadership. This framing engages different ecosystem stakeholders, such as customers looking for cheaper solutions, media looking for novel industry conflicts to report, and analysts picking out future winners, and then converts engagement into the recognition of the disruptor’s ecosystem leadership.

This processual insight contributes to the framing research an explanation about how a disruptor gains source credibility (Hovland and Weiss, 1951) to be trusted by ecosystem stakeholders, recognized as an important determinant of framing effectiveness (Rhee and Fiss, 2014). Further, our data suggest that the frame content might influence the credibility of frame articulator, whereas the existing research usually assumes the opposite direction of this relationship, where the credibility of the frame articulator influences framing content effectiveness (Benford and Snow, 2000; Rhee and Fiss, 2014).

**A Process Model of Disruptive BM Innovation and Evolving Ecosystems**

Our study of Salesforce’s framing-adaptation cycle suggests that ecosystem-level interactions play an important role in better capturing BM disruption dynamics (Figure 3, Table IV). We extend the findings of earlier research that has examined the role of customers (Christensen and Rosenbloom, 1995) and partners (Adner, 2017) by focusing intensely on the interactions of various actors (Gray et al., 2015) during ecosystem evolution (Table IV). Our data suggest
that the feed-forward and feedback for the disruptor (Figure 3) were amplified by the media, which produced additional raw material, such as various awards, that the disruptor subsequently leveraged to substantiate its leadership (see Appendix A2 for evidence).

Researchers have begun to point out the role of external actors, such as media (Pollock and Rindova, 2003; Rao, 1994) or analysts (Beunza and Garud, 2007), as contributors to legitimize new business models and the new ecosystems formed around them. Their role is important because media and analysts can be “active builders of frames, rather than passive classifiers” (Beunza and Garud, 2007, p. 22). In our case, it is the disruptor’s ability to sustain positive media attention during its early years that might have fueled the BM disruption dynamics. Explicitly including these actors in the BM disruption process model (Figure 3) helps us understand why the disruptor is able to initiate a virtuous cycle that is difficult for the incumbent to reverse due to the interaction with a variety of actors (Table IV).

Our process model of evolving ecosystem dynamics (Figure 3) also highlights the importance of framing—effective on the part of the disruptor, ineffective on the part of the incumbent—as an important force in shaping ecosystems in addition to patents or licensing fees (Gawer, 2014), standardization of procedures and interfaces (Wareham et al., 2014), the oversight of the quality and number of complementors (Mantovani and Ruiz-Aliseda, 2016), or dynamic control (Dattée et al., 2018). Yet, the framing process contains the seeds of its own destruction: strong framing helps the disruptor shape the ecosystem around its BMI, but over time it might degenerate into a vicious cycle if not accompanied by continuous BM adaptation by the ecosystem-central firm. This suggests a somewhat different view of the disruption process than, for instance, the insights of Anderson and Tushman (1990) on technology cycles, which emphasize the importance of the emergence of dominant design and awareness of technological discontinuities rather than a focus on continuous adaptation.
Boundary Conditions

Our data allowed the identification of holistic framing and continuous BM adaptation strategies (Appendix A2, Figure 3) that can determine a BM disruptor’s success. However, although we identify the framing and BM adaptation processes associated with this outcome, we cannot assert with certainty that these processes are necessary, let alone sufficient for any case of disruption. It is useful to compare disruptor’s strategic gambit with other disruptive innovation initiatives, both successful and unsuccessful, to increase confidence in our findings. We summarize evidence from these examples in Table V below.

[Insert Table V around here]

These cases seem to confirm the presence of the main processes uncovered in our model, such as framing and BM adaptation. Comparisons with cases where a disruptor was unsuccessful suggest that the disruptor’s virtuous cycle can break down at several levels: ecosystem actors might not resonate with the disruptor’s framing (Koala, Table V), incumbent(s) might choose to react swiftly (Sun Microsystems, Napster, Table V), or the underlying technology might not be as promising as entrepreneurs believe (Koala, Table V). These point to the boundary conditions of our work.

Our inducted process model follows the disruption theory assumptions of a start-up disrupting existing incumbents by offering a cheaper value proposition to a new customer group and then moving upmarket (Christensen, 1997, 2006). One boundary condition of our model therefore concerns the originally different customer group targeted by the disruptor as compared to the incumbent(s), to which the disruptor offers a cheaper value proposition. Another boundary condition is the lack of rapid response from the incumbent, which is often due to lower margins offered by the disruptor’s BMI (i.e., strategic neglect) and successful exploitation of the incumbent’s own BM. In the absence of these conditions, the disruptor’s virtuous cycle might break down. These assumptions best fit highly competitive, nascent, or
high-velocity markets characterized by new technological developments (Davis et al., 2009). Our conceptual framework is less likely to apply to markets that are either highly regulated (Ansari and Krop, 2012) or have institutional voids, as in such markets creating meaningful institutional arrangements, rather than framing, might be the main concern.

CONCLUSION

The walker in Machado’s poem, quoted at the start of this paper, creates a new path by doing the walking. Similarly, our study’s findings indicate that the entrepreneurial top management of a new venture can replace an incumbent’s ecosystem with a radically new one through BM disruption, using imaginative framing and systematic BM adaptation processes to exploit novel value-creating technology. The ecosystem-level process model based on these findings offers significant novel insight into how the disruptor can strategically manage the fundamental uncertainty associated with BMI by trying to orchestrate the interlocking activities of multiple types of actors to help create and sustain the growth of a new ecosystem at the expense of an existing one. We introduce the concept of a “disruptor’s gambit” and add a more complete understanding of disruption by using the received B-B process model of organization-level strategic change to conceptualize successful disruptor-level efforts to create a new ecosystem, combined with ecosystem stakeholder reactions. This process model sets the stage for further research of evolving ecosystem dynamics, and potentially contributes in innovative ways to developing cumulative knowledge about industry-level and multi-industry-level change.
Notes

1 Uncertainty has been defined as “an individual’s perceived inability to predict something accurately” (Milliken, 1987, p. 136) and is most often applied to the environment. It arises from “the combination of frequent environmental changes and cognitive limitations, preventing organizational actors from predicting all relevant contingencies” (Weber and Mayer, 2014, p. 344).

2 This is where companies take advantage of centrally provided computing resources over the Internet (“the cloud”), accessing them most often through payment of a fee for a service, instead of owning or renting applications and storage space (see Marston et al., 2011).

3 The BM of the ecosystem-central company contributes significantly to the ecosystem’s value proposition and governance arrangements; so do all other participants’ BMs that might or might not interact with the central firm’s BM.

4 As illustrated by the following quote from the Wall Street Journal (September 13, 2005): “Siebel Systems has faced considerable turmoil in recent years; its revenue dropped to $1.3 billion last year from $2.1 billion in 2001. Mr. Siebel stepped down last year as chief executive and turned the job over to J. Mike Lawrie. Siebel’s board fired Mr. Lawrie in April after first-quarter results fell far short of expectations. George Shaheen, formerly of Webvan, took over as chief executive, but barely met revenue goals for the second quarter.”

5 For the period starting on June 12, 1999 (the first Salesforce press release), to January 26, 2006, when Siebel was acquired by Oracle, collected from Business Wire and PR Newswire in the Factiva database and triangulated with the corporate websites.

6 Teaching cases provide further insight into the ways top management define their company’s strategic logic through independent analysis of professors, who often interview top management.

7 We considered an interview a multi-question-answer dialogue between a reporter and the firm’s CEO or TMT reported in printed or digital format.

8 For instance, confirming the deliberate framing process, Salesforce’s CEO told Time in 2003: “Don’t go up against your competitor directly. If you are Salesforce, you don’t go up against Siebel, you go up against ‘software.’ Look at this as a political campaign that will go on for 10 years. You have to be patient. You are not going to do it with a magazine ad. You have to find an unconventional way to get your message across. We use guerrilla tactics. We run protests outside Siebel’s events, we serve coffee outside their seminars and say, ‘Wake up!’”

9 Virtuous circles arise when mutually causal processes feed back into one another to lock a system into a mode of operation that yields progressively positive outcomes. Vicious circles yield progressively negative outcomes (Masuch, 1985). We refer to cycles rather than circles due to various delayed effects and ecosystem evolution over time.

10 Sixty-three press releases with competitive reference out of a total of 149 in the phase.

11 This also illustrated by the following quote from New York Times: “The truth is, we didn’t really compete with Siebel at all,” said Mr. Dillon, who became chief several months after the company’s service started. “We were competing with these other smaller entities, but Marc [Benioff] understood that by setting ourselves up as challenging Siebel, that would make sure we got our name in the newspaper” (09/05/2004).

12 This aligns with disruption theory explanations suggesting that existing customer and partner relationships (Christensen and Rosenbloom, 1995), entrenched cognitive perceptions (Tripsas and Gavetti, 2000), and rigid routines (Burgelman, 1983; Gilbert, 2005) can prevent adaptation to changing environment.
REFERENCES


Table I. Data sources, 1999–2006

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<th>Data source</th>
<th>Salesforce</th>
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<td>Press releases</td>
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<td>Financial analyst reports</td>
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<td>Teaching cases (e.g., Harvard Business School, Stanford)</td>
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Table II. Abbreviated chronology of events

<table>
<thead>
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<th>Year</th>
<th>Description</th>
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<tr>
<td>1993</td>
<td>Siebel is founded by Thomas Siebel and Patricia House.</td>
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<tr>
<td>Jun 96</td>
<td>Siebel IPO on NASDAQ.</td>
</tr>
<tr>
<td>1999</td>
<td>Siebel recognized as the “Fastest Growing Company” in U.S. history by Deloitte.</td>
</tr>
<tr>
<td>Mar 99</td>
<td>Salesforce is founded by Marc Benioff and a small team of engineers.</td>
</tr>
<tr>
<td>Nov 99</td>
<td>Salesforce gains its first 100 subscribers.</td>
</tr>
<tr>
<td>2000</td>
<td>Siebel revenues surpass $1 billion and its stock price reaches the record high of $119.31 on November 7, 2000.</td>
</tr>
<tr>
<td>Jan 00</td>
<td>Official Salesforce launch; guerilla marketing; provocative advertising.</td>
</tr>
<tr>
<td>Feb 00</td>
<td>Salesforce launches a paid API, converted to free API in June 2000 and accompanied by API online forum, opening up its BM to ecosystem partners’ offerings.</td>
</tr>
<tr>
<td>Mar 00</td>
<td>The beginning of the dot.com bubble burst.</td>
</tr>
<tr>
<td>May 01</td>
<td>Salesforce “9 Days to CRM” marketing campaign and subsequent launch of City Tours.</td>
</tr>
<tr>
<td>Jul 01</td>
<td>Salesforce launches Service Partner Support Program for consultancies and system integrators.</td>
</tr>
<tr>
<td>Sep 01</td>
<td>Salesforce enables customization of its SaaS offering.</td>
</tr>
<tr>
<td>Feb 02</td>
<td>Salesforce launches Enterprise Edition of its software specifically targeting larger customers (part of Siebel’s target market), supported by “Don’t Get Bullied” marketing campaign.</td>
</tr>
<tr>
<td>Jun 03</td>
<td>Salesforce launches sForce, later expanded into AppForce, offering customers a hub to manage all types of business applications (not just CRM) at a lower cost; includes partner support program.</td>
</tr>
<tr>
<td>Oct 03</td>
<td>Siebel announces the acquisition of UpShot (#2 SaaS CRM after Salesforce) and the launch of its On-Demand CRM offering, imitating Salesforce BMI and targeting small and medium-size companies.</td>
</tr>
<tr>
<td>Nov 03</td>
<td>Salesforce launches DreamForce, a customer conference.</td>
</tr>
<tr>
<td>2004</td>
<td>Salesforce enables third-party development toolkits and launches self-support website.</td>
</tr>
<tr>
<td>May 04</td>
<td>New CEO Mike Lawrie replaces Thomas Siebel as Siebel CEO.</td>
</tr>
<tr>
<td>Jun 04</td>
<td>Salesforce IPO on New York Stock Exchange with ticker symbol CRM.</td>
</tr>
<tr>
<td>Nov 04</td>
<td>Salesforce launches Marketplace, converted to AppExchange in September 2005 to allow third-party applications on its platform, opening further its BM to ecosystem partners.</td>
</tr>
<tr>
<td>Apr 05</td>
<td>New CEO George Shaheen replaces Mike Lawrie as Siebel CEO.</td>
</tr>
<tr>
<td>Jan 06</td>
<td>Siebel is acquired by Oracle for $10.66 stock price.</td>
</tr>
</tbody>
</table>
Table III. Salesforce framing over time

<table>
<thead>
<tr>
<th>Frame Type</th>
<th>Press Release Class</th>
<th>Start</th>
<th>Finish</th>
<th>Count</th>
<th>Indicative Framing Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distinctiveness frame</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>(dramatizing differences)</strong></td>
</tr>
<tr>
<td>(06/12/99–08/05/00; Total PR: 17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“Revolutionize the delivery of enterprise-class applications;” “leading a software industry revolution designed to free customers;” “makes software obsolete”</td>
</tr>
<tr>
<td>Pre-Release</td>
<td></td>
<td>06/12/99</td>
<td>22/12/99</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Revolution</td>
<td></td>
<td>02/02/00</td>
<td>22/02/00</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Obsolete</td>
<td></td>
<td>10/03/00</td>
<td>08/05/00</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Leadership frame</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>(asserting leadership)</strong></td>
</tr>
<tr>
<td>(16/05/00–15/05/01; Total PR: 25)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“Delivers enterprise software as a service;” “the market leader in delivering enterprise applications;” “a market leader…;” “…to deliver traditional enterprise applications;” “the first affordable suite of CRM services”</td>
</tr>
<tr>
<td>Online Enterprise Software</td>
<td></td>
<td>16/05/00</td>
<td>11/07/00</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Market Leader</td>
<td></td>
<td>16/10/00</td>
<td>15/01/01</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Online Traditional Enterprise Software</td>
<td></td>
<td>12/02/01</td>
<td>15/05/01</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Distinctiveness frame</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>(active contestation)</strong></td>
</tr>
<tr>
<td>(22/05/01–29/06/03; Total PR: 149)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“There is no traditional software to buy, install, upgrade and maintain;” “more companies have chosen salesforce.com than any other vendor including Siebel”</td>
</tr>
<tr>
<td>CRM Arrives</td>
<td></td>
<td>22/05/01</td>
<td>11/06/01</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Return on Investment</td>
<td></td>
<td>14/06/01</td>
<td>15/10/01</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>More popular than Siebel</td>
<td></td>
<td>12/12/01</td>
<td>12/02/02</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>360-Degree Product Suite</td>
<td></td>
<td>22/02/02</td>
<td>29/06/03</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td><strong>Leadership frame</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>(consolidating dominance)</strong></td>
</tr>
<tr>
<td>(03/06/03–20/12/06; Total PR: 512)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“The global leader in on-demand CRM services;” “the established global leader in software-as-service;” “the leading provider of application services;” “the market and technology leader in CRM on demand;” “the market and technology leader in on-demand business services”</td>
</tr>
<tr>
<td>World Leader</td>
<td></td>
<td>03/06/03</td>
<td>29/03/04</td>
<td>107</td>
<td></td>
</tr>
<tr>
<td>IPO</td>
<td></td>
<td>18/12/03</td>
<td>14/07/04</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Market &amp; Technology Leader A</td>
<td></td>
<td>22/07/04</td>
<td>08/09/05</td>
<td>147</td>
<td></td>
</tr>
<tr>
<td>Market &amp; Technology Leader B</td>
<td></td>
<td>12/09/05</td>
<td>20/12/06</td>
<td>213</td>
<td></td>
</tr>
</tbody>
</table>

PR = press release
<table>
<thead>
<tr>
<th>Force multiplier</th>
<th>Actor Level</th>
<th>Ecosystem Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Response to disruptor framing</td>
<td>Response to incumbent framing</td>
</tr>
<tr>
<td>Customers (first SMEs, then large enterprises)</td>
<td>Resonating</td>
<td>Equivocating</td>
</tr>
<tr>
<td>Partners (first SMEs, then large enterprises)</td>
<td>Resonating</td>
<td>Equivocating</td>
</tr>
<tr>
<td>Media</td>
<td>Amplifying</td>
<td>Post-2001: criticizing</td>
</tr>
<tr>
<td>Analysts</td>
<td>Comparing with incumbent</td>
<td>Comparing with disruptor</td>
</tr>
</tbody>
</table>
Table V. Examples of disruptive innovation initiatives from the literature

<table>
<thead>
<tr>
<th>Authors</th>
<th>Disruptor</th>
<th>Result</th>
<th>Illustrated Processes Congruent with Our Process Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ansari et al. (2016)</td>
<td>TiVo</td>
<td>Success</td>
<td>Framing process: TiVo first framed its BMI as disruptive, and then as sustaining (Ansari et al., 2016, Figure 1); BM adaptation process: TiVo improved its BM over time following customer and partner feedback (Ansari et al., 2016, p. 1843); Role of media as a force multiplier: media picked up TiVo’s rhetoric about the disruptive potential of its innovation, amplifying the disruption effect (Ansari et al., 2016, p. 1837).</td>
</tr>
<tr>
<td>Doganova and Eyquem-Renault (2009)</td>
<td>Koala (pseudonym)</td>
<td>Failure</td>
<td>Framing process: the entrepreneurs’ framing did not resonate with ecosystem actors and their technology proved less promising than expected (Doganova and Eyquem-Renault, 2009, p. 1566); BM adaptation process: Koala attempted to adapt its BM to new customer and partner needs (Doganova and Eyquem-Renault, 2009, p. 1567).</td>
</tr>
<tr>
<td>Garud and Kumaraswamy (1993)</td>
<td>Sun Microsystems</td>
<td>Success</td>
<td>Framing-adaptation processes: when Sun Microsystems introduced its open systems strategy (framed as “the Network is the Computer”), it was able to implement its technology faster than others due to rapid adaptation (Garud and Kumaraswamy, 1993, p. 360).</td>
</tr>
<tr>
<td>Garud et al. (2002)</td>
<td>Sun Microsystems</td>
<td>Failure</td>
<td>Incumbent’s response: in spite of the fact that Sun Microsystems was able to quickly implement its Java technology, the equally rapid incumbent response of Microsoft prevented disruptor’s success.</td>
</tr>
<tr>
<td>Hensmans (2003)</td>
<td>Napster</td>
<td>Failure</td>
<td>Framing process and incumbents’ response: Napster framed itself as dramatically different from the existing music industry incumbents, but the quick response of incumbents who engaged in a framing (and legal) contest, and the lack of leadership framing by Napster in subsequent phases might have contributed to the company’s lack of economic success.</td>
</tr>
</tbody>
</table>
Figure 1. Comparison of software revenue between Salesforce (disruptor) and Siebel (incumbent)\textsuperscript{a}

\textsuperscript{a} These data were compiled from SEC 10-K reports and press releases. After its acquisition in 2006 by Oracle, Siebel continued to lose market share: in 2015 Forbes reported that Salesforce held 18.4\% market share, SAP 12.1\%, and Oracle (which bought Siebel) 9.1\% (Forbes, 22/05/15).
Figure 2. Salesforce BM adaptation over time and ecosystem growth

<table>
<thead>
<tr>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscribers</td>
<td>20</td>
<td>100</td>
<td>1,000</td>
<td>20,000</td>
<td>70,000</td>
<td>100,000</td>
<td>147,000</td>
</tr>
<tr>
<td>Customers</td>
<td>5</td>
<td>Nov 1999</td>
<td>Mar 2000</td>
<td>Oct 2000</td>
<td>2,800</td>
<td>5,000</td>
<td>8,000</td>
</tr>
</tbody>
</table>

Prototype

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BugForce (Bug Tracking)</td>
<td></td>
<td>Aug 2002</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free Trial</td>
<td>“Try &amp; Buy”</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>BM Content (evolving offering)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pilot</td>
<td>Dec 1999</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content Partner</td>
<td>Service Partner</td>
<td>sForce Developer</td>
<td>Microsoft Developer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paid API</td>
<td>Free API</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BM Partnerships (increasing openness)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>API Online Forum</td>
<td>Self Support Website</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jun 2000</td>
<td>Mar 2004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketplace</td>
<td>AppExchange</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nov 2004</td>
<td>Sep 2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BM Structure (increasing customization)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Basic Cust.</td>
<td>Advanced Customization</td>
<td>CustomForce 1.0</td>
<td>CustomForce 2.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sForce</td>
<td>2nd Party Toolkits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jun 2001</td>
<td>Sep 2003</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MultiForce</td>
<td>Jun 2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 3. Process model of ecosystem-level business model disruption dynamics

1. Disruptor framing
   - DISRUPTOR
     - Development & improvement of BM
   - Increasing adoption

2. Continuous adaptation
   - EVOLVING ECOSYSTEM (from incumbent to disruptor)
     - Force multipliers: customers, partners, media, analysts
   - Increasing abandonment

3. Incumbent framing
   - INCUMBENT
     - BM-constrained response

4. Continuous maladaptation
Appendix
A1. Coding of framing statements based on corporate description in press releases

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>Illustrative Text (abridged)</th>
</tr>
</thead>
</table>
| Major    | Change Significant change in the structure and content of the corporate description.          | PR 1: “Founded in March 1999 by former Oracle Executive, Marc Benioff, salesforce.com has the vision to revolutionize the delivery of enterprise-class applications and services via the Web.” Source: Salesforce PR 02/02/00  
PR 2: “With more than 20,000 companies registered for its flagship service, salesforce.com (http://www.salesforce.com) is the market leader in delivering enterprise applications as online services.” Source: Salesforce PR 16/10/00 |
| Minor    | Change Insignificant change not substantively altering the description.                         | PR 1: “Salesforce.com builds and delivers enterprise applications as scalable online services. The company’s award-winning CRM solution provides integrated online sales force automation, customer support management and marketing automation components to help companies meet the complex challenges of global customers.” Source: Salesforce PR 15/10/01  
PR 2: “Salesforce.com builds and delivers enterprise applications as scalable online services. The company’s award-winning CRM solution provides integrated online sales force automation, customer service and support, and marketing automation applications to help companies meet the complex challenges of global customers.” Source: Salesforce PR 05/11/01 |
| Extension| Change No change to corporate description, except to update data, such as reference customer names, awards received or number of users. | PR 1: “As of June 30, 2004, salesforce.com manages customer information for 10,700 customers and 161,000 paying subscribers including Automatic Data Processing (ADP), Advanced Micro Devices (AMD), Dow Jones, America Online, Avis/Budget Rent A Car (Cendant Rental Car Group), Polycom and Sun Trust.” Source: Salesforce PR 22/07/04  
PR 2: “As of June 30, 2004, salesforce.com manages customer information for 10,700 customers and 161,000 paying subscribers including Automatic Data Processing (ADP), Advanced Micro Devices (AMD), SunGard, Corporate Express, Dow Jones, America Online, Avis/Budget Rent A Car (Cendant Rental Car Group), Polycom and SunTrust.” Source: Salesforce PR 03/08/04 |
## A2. Illustrations of feed-forward and feedback underpinning the process model (Figure 3)

<table>
<thead>
<tr>
<th>Type of Process (Figure 3)</th>
<th>Illustrative Quote, Fact, or Episode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Disruptor feed-forward linking disruptor’s BM to adoption within the new ecosystem (by customers, partners, media, etc.) through framing</td>
<td><strong>Framing:</strong> “salesforce.com offers an opportunity to revolutionize the way organizations of any size address business opportunities on the Internet. This is a big idea whose time has come” (PR 12/99); “a software industry revolution” (PR 02/00); “No software” logo and phone number; “We are at the forefront of a fundamental shift changing the way companies view enterprise software and services.” (PR 05/00); “the market leader” (PR 10/00); “a market leader” (PR 11/00); “the first affordable suite of CRM services” (PR 02/01). <strong>Increasing ecosystem adoption:</strong> successful launch of free trial resulting in 1,000 subscribers (customers) reached in 1 month (PR 03/00); early partnerships with established firms (e.g., Hoover’s, Standard &amp; Poor’s, Fortune’s Small Business Magazine); recognition of “high-tech campaign of the year” by PR Week; Benioff chosen to speak at Milken Institute 2000 and Spring 2000 Internet World conferences; awards received at Demo 200 conference, Upside magazine Hot 100 award, Investor’s choice at Enterprise Outlook Conference, Aberdeen Group’s “What works” award, etc.</td>
</tr>
<tr>
<td>2. Disruptor feedback linking ecosystem response to the disruptor adapting its BM to evolving needs for increased customization and openness of customers and partners</td>
<td><strong>Continuous adaptation:</strong> “This experience proved the value of involving prospective users in order to build a user interface that was intuitive” (BTC, p. 14); “We contacted [design partners] frequently to discuss their experience using the service, and they became the eyes and ears of the engineering team” (BTC, p. 70); “The on-demand architecture offers us the opportunity to “watch” how users use the application allowing us to learn about what they use and what they don’t” (BTC, p. 116); “The ideas for changes we made came directly from customers and prospects. We launched only what they requested, considering their insights, even when we didn’t agree” (BTC, p. 116). <strong>BM improvements:</strong> BM content: managing customer data on central servers hosted on the Internet (“the cloud”), free trial followed by the introduction of a monthly subscription fee (11/99), upgrades provided free through the cloud, use of a tele-sales team instead of traditional high-pressure salesmen (or consultants) visiting customers on-site; BM structure: basic, then advanced customization allowed; BM partnerships: launch of free API, creation of API Online forum to further enable API users and increase openness.</td>
</tr>
<tr>
<td>3. Incumbent feed-forward linking incumbent’s BM to the abandonment of the old ecosystem (by customers, partners, etc.) through framing</td>
<td><strong>Framing:</strong> “A leading provider of business applications software, enabling corporations to sell to, market to, and serve customers across multiple channels and lines of business. With more than 3,500 customers worldwide, Siebel Systems provides organizations with a proven set of industry-specific best practices” (multiple PRs, 2003); “According to the leading research and advisor firm Gartner, Inc. Siebel Systems is the unrivaled leader in global CRM software deployments” (PR, 2003); reasons for customers preferring Siebel over Salesforce primarily based on Siebel’s reputation such as “proven track record, professionalism, and customer references” (PR 05/05); no information about intrinsic product quality; 20% of PR do not mention reasons for customers switching from Salesforce. <strong>Ecosystem abandonment:</strong> “But the complexity and relatively high costs of Siebel’s software began to hurt the company in recent years as corporate America became more prudent about its technology spending” (WP, 2003); “Siebel Systems pioneered CRM in the late 1990s and the concept resonated so well in the F2000, that Siebel became one of the fastest growing companies in history. However, most enterprises overbought the dream and suffered through high priced, but mediocre deployments and an inability to change processes effectively enough to leverage the considerable benefits of the technology” (SG Cowen &amp; Co, 2003); “While the company [Siebel] does not explicitly disclose its maintenance renewal rates our calculations indicate that the company is suffering from an abnormally high level of attrition and unused software” (UBS, 2003); “One more dinosaur is extinct. Siebel tried to make this transition, but were too late” (ZDNet, 2005).</td>
</tr>
<tr>
<td>Type of Process (Figure 3)</td>
<td>Illustrative Quote, Fact, or Episode</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>4. Incumbent feedback linking incumbent’s maladaptation (to the customer/partner evolving needs) to BM-constrained response</td>
<td>Continuous maladaptation: “Hosted CRM is not a threat to Siebel” (Yoffie, 2016); no mention of Salesforce in press releases until 2004; “Tom Siebel commented, as he has in the past, that large and profitable companies are rarely built on the back of the mid-market. Hence, the mid-market strategy likely continues to evolve but does not rise to the level of strategic imperative à-la-verticalization” (Credit Suisse, 2003); “Where Salesforce provides a generic version of the product plus the sForce development platform so customers can build their own extensions and integrations, Siebel offers vertical versions so customers do not have to do their own development. “We do not outsource development to the customer,” said Cleveland. “It is ludicrous, customers should not have to develop [the application]. We don’t believe in outsourcing development” (Data Monitor, 2005). Note: Siebel neglects the evolving ecosystem need to increased openness. BM-constrained response: “A survey of 22 companies that purchased Siebel Systems Inc. software found 77% of respondents said they believe they haven’t received a return on the investment” (WSJ, 2002); “We believe Siebel continues to be challenged both on the product front and the pricing front.” (Prudential Equity, 2003); “Our customers want multiple ways of acquiring and deploying technology. They don’t want just on demand. So my experience has been that our particularly large customers want a combination of things” (Lawrie CEO interview, 2005).</td>
</tr>
</tbody>
</table>

### A3. Illustration of processes underpinning schematic representation of ecosystem reaction (Table IV)

<table>
<thead>
<tr>
<th>Process (timing)</th>
<th>Definition</th>
<th>Actors</th>
<th>Indicative Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adopting/Abandoning</strong> (1999–2006)</td>
<td>The activities of the customers in supporting or leaving an ecosystem value proposition</td>
<td>C</td>
<td>Adopting: “Customer count has increased steadily for Salesforce, almost tripling from 5,700 in Jan ’03 to 15,500 in Apr ’05, representing a CAGR of 56.0%. We expect new customer growth to slow modestly to a CAGR of 48.6% exiting FY07” (SG Cowen &amp; Co, 2005); “We are very encouraged by the growing adoption of the AppExchange offering. The number of available applications has more than quadrupled to over 300 from 70, since the initial announcement in September 2005” (Credit Suisse, 2006). Abandoning: “Clients are saying no to software suppliers—corporate buyers balk at upgrades and higher fees for maintenance. [ ] Esker dropped Siebel and switched to Salesforce, a Siebel competitor that runs software systems on its own computers, freeing customers from upgrade worries altogether.” (WSJ, 2004); “The experiences of many corporations with failed large-scale on-CRM implementations opened the door to someone offering a more simplistic, user-friendly solution” (Deutsche Bank, 2005).</td>
</tr>
<tr>
<td><strong>Amplifying</strong> (1999–2006)</td>
<td>Increasing framing effect by highlighting salient features (Snow et al., 1986)</td>
<td>M</td>
<td>“Salesforce takes the lead in the latest software revolution” (WSJ, 1999); “A David-and-Goliath battle of the Silicon Valley sort is expected to heat up with tonight’s launch party for Salesforce” (CNET, 2000); “I think there is going to be a huge democratization of these enterprise technologies because of this on-demand computing enabled by the Internet,” Mr. Benioff said. “Our evangelical mission is to destroy enterprise software as it exists today” (NYT, 2003); “Salesforce stands at the forefront of a hotly debated movement of “software as a service” (WP, 2004); “The one to beat in CRM” (Forbes, 2005).</td>
</tr>
<tr>
<td><strong>Comparing</strong> (1999–2006)</td>
<td>Contrasting salient features with other technological offerings</td>
<td>A</td>
<td>“Salesforce is catering to a different market from Siebel and the company stated as much. Its customers have typically been mid-sized companies and start-ups, customers comfortable with a hosted model and with limited customization and integration needs. That hasn’t been the Siebel market to date. Over time, Salesforce expects to compete with Siebel as the hosted model moves upscale to larger customers but that could be a ways off” (Morgan Stanley, 2000); “We believe that Siebel will gradually lose share in the business-to-business marketplace for CRM solutions” (Citigroup, 2003); “Salesforce value proposition is far more mature than other hosted offerings including Siebel On Demand.” (UBS, 2004).</td>
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<td><strong>Criticizing</strong> (2001–6)</td>
<td>The activities of media in undermining incumbent core activities</td>
<td>M</td>
<td>“Indeed, some industry professionals who viewed the Siebel presentation were appalled at what they considered its grossly exaggerated promises—which, in fact, are precisely what has gotten CRM into so much trouble in the first place. The presentation makes it seem that Siebel had solved some of the world’s most profound data-processing challenges. In real life, even the savviest companies can barely manage a fraction of what Siebel promises.” (WSJ, 2002); “Siebel also faces a credibility problem in its customer satisfaction surveys. Siebel executives often note that its surveys are conducted by a rigorous, independent third party called Satmetrix. What Siebel neglected to point out is that it is a minority investor in Satmetrix, and that Siebel board member is also on the Satmetrix board” (Fortune, 2002); “Now the brash Mr. Siebel is being forced to eat some more humble pie. The company plans to announce today that it has entered a partnership with IBM to offer its software over the Internet. The move comes barely two years after the company abandoned a previous attempt to do the same thing amid statements by Mr. Siebel that generally dismissed the concept” (WSJ, 2003).</td>
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<td><strong>Equivocating</strong></td>
<td>Customers and partners grasp the framing but do not experience a personal connection with it, avoid commitment, sometimes undermining the ecosystem value proposition of the incumbent (1999–2006)</td>
<td>C</td>
<td>“The more complex answer is that new potential customers may be losing faith in Siebel as a long term going concern and therefore they are less willing to purchase their products or make the large enterprise-wide commitments that they have been willing to make historically” (Prudential Equity, 2004); “Salesforce has a significant lead over Siebel in developing relationships with other vendors. Our conversations with the partners lead us to believe that either they are in very early stages of developing such relationships with Siebel Systems or do not see much market demand to justify investment in such partnerships” (UBS, 2005); “Accenture recently announced a relationship with Salesforce. In our view, Accenture will act as a lead generator for Salesforce, especially in verticals where the company does not have a significant presence” (UBS, 2005) Note: Accenture was Siebel’s most important, “preferred” implementation partner since 1995 (Sull, 2001).</td>
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<td><strong>Extending</strong></td>
<td>The activities of partners in developing the ecosystem value proposition (1999–2006)</td>
<td>P</td>
<td>“Supporters of Sforce include Borland, Sun, Microsoft Corp. and BEA Systems Inc.—technology vendors that more often compete than collaborate. They see Sforce as an intriguing extension of a long-term effort, dubbed Web services, to use new programming standards to combine information and computing functions among Web sites operated by different companies” (WSJ, 2003); “Recent partnerships with companies such as Thomson Financial give Salesforce incremental appeal to customers. This partnership allows vast amounts of financial data to be integrated into pre-packaged or custom-developed functionality” (SG Cowen &amp; Co, 2005).</td>
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| **Promoting / Demoting** | The activities of media in supporting or devaluing the ecosystem value proposition and governance (1999–2006) | M | Promoting: “Salesforce is selling some of the hottest software around that allows sales, customer support and marketing staff to collaborate between teams and effectively communicate with customers. What makes the process remarkable is that it’s done entirely over the Web.” (Fortune, 2001); “Marc R. Benioff, the founder and chief executive of Salesforce, regards his company as a force for change. Mr. Benioff’s message and his low-cost, no-frills offering have gone over well at a time when companies are squeezing technology budgets.” (NYT, 2003); “Salesforce is paving the way for other software start-ups that use the new “subscription” revenue model rather than the industry’s traditional selling model” (Reuters, 2004); AppExchange described as “iTunes of business software” by Forbes and as the “eBay for software” by Business Week (2006) Note: Salesforce incremental appeal to customers. What makes the process remarkable is that it’s done entirely over the Web.” (Fortune, 2001); “Marc R. Benioff, the founder and chief executive of Salesforce, regards his company as a force for change. Mr. Benioff’s message and his low-cost, no-frills offering have gone over well at a time when companies are squeezing technology budgets.” (NYT, 2003); “Salesforce is paving the way for other software start-ups that use the new “subscription” revenue model rather than the industry’s traditional selling model” (Reuters, 2004); AppExchange described as “iTunes of business software” by Forbes and as the “eBay for software” by Business Week (2006) Note: Salesforce incremental appeal to customers. What makes the process remarkable is that it’s done entirely over the Web.” (Fortune, 2001); “Marc R. Benioff, the founder and chief executive of Salesforce, regards his company as a force for change. Mr. Benioff’s message and his low-cost, no-frills offering have gone over well at a time when companies are squeezing technology budgets.” (NYT, 2003); “Salesforce is paving the way for other software start-ups that use the new “subscription” revenue model rather than the industry’s traditional selling model” (Reuters, 2004); AppExchange described as “iTunes of business software” by Forbes and as the “eBay for software” by Business Week (2006) Note: Salesforc
| **Resonating** | Audience experiencing a personal connection with a frame due to alignment with either cognitive schemas or emotions (Giorgi, 2017, p. 716) (1999–2006) | C | “It was amazing what [happened]: without prompting from us, customers would stand up and deliver spontaneous testimony professing their belief in our product. These users were eager to share their stories. … This morphed into a movement, and our customers soon became Salesforce evangelists” (BTC, pp. 49-51); “Unlike most enterprise software applications, Salesforce’s customers truly seem passionate in their praise for the company’s applications. We have heard so many stories from customers about the viral demand for salesforce’s products. Once installed for one department, other departments seem to clamor for it.” (Wedbush Morgan Securities, 2005); “AppExchange Mobile seemed to resonate well with customers and partners.” (Think Equity Partners, 2006) |