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INCUMBENT RESPONSES TO AN ENTRANT WITH A NEW BUSINESS MODEL:

RESOURCE CO-DEPLOYMENT AND RESOURCE RE-DEPLOYMENT STRATEGIES

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ABSTRACT

The constructs of re-deployment and co-deployment have been central to discussions of scope economies in diversified firms. We argue however that these constructs are also significant in the context of single business firms. Increasingly, changes in technology and demand preferences have provided opportunities for entrants to attack incumbents with a different business model, one that may neutralize the incumbent's advantage for at least some set of customers (e.g. Netflix versus Blockbuster). In such a context incumbents often respond by modifying their business model. We note that several of the business model-altering responses of the incumbent can be characterized in terms of co-deployment and re-deployment benefits and costs, where co-deployment benefits/cost apply to the scope economies/diseconomies in running multiple business-models within the same firm and re-deployment benefits/costs apply to the implications of moving assets from one business model to another. We then examine the set of strategic choices faced by the incumbent in competing with an entrant with a different business model. We identify five set of factors that are likely to influence the decision to choose between these alternatives – uncertainty spawned by the new business model, market segment targeted by the new model, the within-business-across-business-model co-deployment and re-deployment benefits and costs, the across-business co-deployment and re-deployment benefits and costs, and the incumbent's prior performance history. Although some of these choices have seen some work, most remain relatively underexplored in the strategy literature. We highlight the potential for research in this area with a set of propositions that identify key conditions that should hold true for a particular strategic choice to be picked by an incumbent.

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INTRODUCTION

Historically, the construct of scope economies has been used to explain firm performance in the context of research on diversification and firms' entry into multiple businesses. In such analyses scope economies usually emerge in two forms, synergy – the contemporaneous sharing of resources across markets leading to super-normal returns (e.g. Panzar and Willig, 1981) - and resource re-deployment benefits – the benefits originating from the withdrawal of a resource from a context to use it in a different one (e.g. Helfat and Eisenhardt, 2004). These constructs have been – implicitly or explicitly – referred to as the core mechanisms to explain the antecedents and effects of various managerial choices in multiple literatures (eg. Helfat and Eisenhardt, 2004; Karim and Mitchell, 2000; Sakhartov and Folta, 2014a,b). For instance, the mechanism of resource re-deployment has been referred to in the context of research on the performance of acquisitions (e.g. Capron, 1999; Capron, Dussauge and Mitchell, 1998; Capron and Mitchell, 1998; Capron, Mitchell, Swaminathan, 2001); on the impact of prior experience or preadaptation when entering new settings (e.g. Cattani, 2006; Klepper and Simons, 2000) and on the reuse of complementary assets in new contexts (e.g. Mitchell, 1989; 1991; Rosenbloom and Christensen, 1994); research on performance heterogeneity between de novo and de alio firms (Carroll, Bigelow, Seidel, Tsai, 1996; Ganco and Agarwal, 2009; Sosa, 2013). Similarly, the construct of resource co-employment and the achievement of synergies has been a core mechanism identified as underlying the relationship between firm diversification and performance (e.g. Bettis, 1981; Bettis and Hall, 1982; Grant and Jammine, 1988; Rumelt, 1974; 1982).

Yet, the constructs also have important implications for single business firms. The possibility of sharing resources across multiple value chains (i.e. co-deployment) or withdrawing

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resources from one use and applying them to another (i.e. re-deployment) are in fact very meaningful mechanisms in the context of a single business firm as well. In particular in this paper we suggest that the constructs of co- and re- deployment might be particularly relevant when we recognize that, increasingly, firms offer their services through multiple business models. We define business models here as a set of connected activity choices used by a company to serve a given product market (e.g., Amit and Zott, 2001; Casadesus-Masanell and Ricart, 2010; Baden-fuller and Haefliger; Markides and Lanzolla, 2015[1]). To clarify the distinction between this context and the more commonly studied context of multi-business diversification we note that a firm in multiple product markets might be targeting different customers/customer needs. Instead, different business models might be targeting the same market and might rather imply different ways of engaging with the customers.

For instance, a company in the airline industry could conduct business both (1) with a model based on low fares, flying to secondary airports, no meals, short-haul flights and high standardization and (2) with a model based on added comfort and differentiated offers that is based on reducing the number of seats in planes, providing additional offers of food, baggage transfer and flights to primary airports (Casadesus-Masanell and Ricart 2010; Rivkin, 2000). In this setting we can see that there could be resource co-deployment possibilities between the two business models (e.g. procurement or technology could be shared across the two models), as well as opportunities for resource re-deployment (e.g. personnel could be moved from one model to another).

[1] The construct of business model has been defined in different ways by different authors. Amit and Zott (2001, p.511), for instance, define business models as "the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities"; Casadesus-Masanell and Ricart (2010, p.195) as "The logic of the firm – how it operates and creates value for its stakeholders", Baden-fuller and Haefliger as " a system that solves the problem of identifying who is (or are) the customer(s), engaging with their needs, delivering satisfaction, and monetizing the value". See Baden-fuller and Morgan (2013) for a review.

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In many industries, technology (on the supply side) and customer preferences (on the demand side) are making possible - and sometimes even demanding - a reconsideration of existing business models (e.g. Casadesus- Masanell and Zhu, 2010; Markides and Charitou, 2004). Commonly, entrants introduce new business models – often enabled by technological advancements - in attempts to challenge incumbents. For instance, in 1997 Netflix challenged the Blockbuster business model - based on the physical renting of VHS or DVDs from one of the thousand retail locations of the company - by advancing a mail-based online "rent from home" model. Whereas the Blockbuster model was mainly sustained by the offering of hit new movies available in limited selections from physical stores with the payment of late rent fees by its customers as an incentive to rotate the limited inventory, Netflix operated a subscription-based model, which did away with late fees but also presented far fewer new movies but made up for it with a much larger selection and a recommendation engine and "queue" that helped to stimulate demand.

In this paper we focus on the context of an incumbent faced with the challenge from an entrant with a new business model and we address the following research question: what are the strategies available to incumbents to respond to the emergence of new business models and what are the antecedents of this strategic choice?

Recognizing the possibility of multiple business models in a single product firm we argue that the constructs of re-deployment and co-deployment and the prior work on this literature can help us understand the strategic choices faced by an incumbent so challenged. We draw upon the prior literature to identify the main strategic alternatives facing an incumbent that has been confronted by an entrant with a different business model. Having highlighted the strategic

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choices before the incumbent we develop a set of propositions identifying some of the conditions under which an incumbent will select each of the main strategic choices.

PRIOR RESEARCH

Incumbents and Business Model disruption

One of the core themes in technology strategy research concerns the phenomenon of new entrants displacing incumbent firms in the context of radical technological change (e.g. Adner. 2002; Henderson and Clark, 1990; Tripsas and Gavetti, 2000; Tushman and Anderson, 1986). Research in this area emphasizes how the emergence of a new technology in an industry or market often requires new capabilities, assets and resources as well as new cognitive schema or even new business models to be dealt with (e.g. Henderson and Clark, 1990; Tripsas, 1997; Tripsas and Gavetti, 2000). In this context, incumbents often find themselves trapped in their own prior experiences and competences, which slow their adaptation attempts.

In this paper we emphasize that another situation in which incumbents are at risk of being displaced by new entrants is the case in which new business models emerge in the market. New business models do not necessarily imply a change in technological competences. For instance, the new business model advanced by Netflix did not involve a substantial technological change, but it rather led to a redefinition of the targeted customers (e.g. the Netflix model targeted regular movie watchers while the Blockbuster's model targeted occasional movie watchers); of the value offered to the customers (e.g. a varied and customized selection in the case of Netflix versus a selection focused on new releases in the case of Blockbuster); of the way in which the value is appropriated (e.g. via a subscription-based fee in the case of Netflix versus a per-movie fee in the case of Blockbuster).

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The notion of competing business models has gained considerable recognition in recent years. Several studies have emphasized that many business models can coexist in the same market and have investigated the conditions under which one business model can be more successful than another (e.g. Bonaccorsi, Giannangeli, Rossi, 2006; Casadesus- Masanell and Ghemawat, 2006; Casadesus- Masanell and Yoffie, 2007; Chesbrough and Appleyard, 2007). Within this context, the competitive dynamics between actors operating under different models and in particular the choice made by incumbents and new entrants on the adoption of competing business models have been identified as a particularly relevant and complex managerial problem (e.g. Casadesus-Masanell and Hervas- Drane, 2010; Casadesus-Masanell and Yoffie, 2007; Economides and Katsamakas, 2006; Seamans, 2012).

A core element that is emphasized by this research is that managing multiple business models simultaneously represents a non-trivial strategic task. On the one hand offering multiple business models might offer firms some opportunity for synergy, especially if the models share some elements of similarity (e.g. Markides and Charitou, 2004). However, competing business models might also conflict with one another, reducing the attractiveness of a dual strategy (Markides and Charitou, 2004; Porter, 1980). For instance, by moving aggressively into private labels, retail companies might dilute their differentiation strategy (Markides and Charitou, 2004). This makes the choice difficult and also presents firms with strategic challenges that concern the implementation of such strategies. Similarly, moving between business models appears a possible option for firms. However, it often leads firms to uncertain transitional state business models with substantial declines in their profits (McNamara, Peck and Sasson, 2013).

Even in the absence of radical technological change, business model innovation can create a substantial challenge for incumbents due to the fact that a new business model requires re-

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shuffling or recombining the various business activities that compose the model in a novel way. This might imply a complete revision of the patterns regulating the use and/or shared use of the resources and assets underlying those activities. On the one hand, this change might offer new opportunities for resource co-deployment or re-deployment. On the other hand, it also requires a complete rebalance and careful consideration of the benefits and costs associated with alternative resource and asset configurations.

In addition to raising issue of whether the incumbent's resource allocation is appropriate, business model innovation also raises other considerations in an industry. Most importantly from the perspective of our current question it is important to note that the entry of a new business model in an industry can generate at least two important dynamics that may affect the incumbent's response. . First the entrant's incursion increases the uncertainty in the industry through at least two mechanisms a) it raises questions about the relative efficacy and competitiveness of the two business models (in equilibrium either, neither or both models could thrive), and consequently, b) it potentially changes the valuation of the incumbent's assets. Both of these raise issues that the incumbent has to engage with in fashioning their response. For instance, uncertainty about the relative efficacy of the business models is going to feature prominently in the incumbent's response. If the new model is significantly superior or inferior relative to the incumbent's model the incumbent's response may tilt in one way. If there is extreme uncertainty about which model is better the response may tilt another way. Similarly uncertainty and volatility in the value of the incumbent's assets may also influence the choices an incumbent makes.

Second, the arrival of a new business model may also influence the market dynamics. For instance the new model may target a new segment which hitherto was not consuming the product

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or not in significant quantities (eg. good quality wine sold to non-users by simplifying the wine selection process) . Alternately, the new model might entail some novel feature that, once identified and offered (eg. the ability to return rented DVD's by mail rather than having to go to the store), is found particularly desirable by customers. These kinds of innovations could lead to an expansion of the market; alternately they may target an existing set of customers and simply cannibalize the existing sales. Clearly, such considerations are going to be relevant to the incumbent's decision. In our framework we will account for both these factors as we try to predict how incumbents will react.

Competing business models and resource deployment

The synergy and re-deployment literatures (e.g. Helfat and Eisenhardt, 2004; Karim and Mitchell, 2000; Sakhartov and Folta, 2014a,b) can provide a very useful set of constructs to understand the strategic options available to incumbents in the context of the emergence of a new business model. For elaboration purposes we note that the literature on co-deployment has identified multiple sources of synergy such as operational, vertical integration, competitive and financial synergies as well as the costs that accompany such synergies (e.g. Ahuja and Novelli 2015). Notable synergy related costs include coordination costs required to share resources across businesses (e.g. Hill and Hoskisson, 1987; Rawley 2010; Zhou, 2011); attention costs (e.g. Levinthal and Wu, 2010; Penrose, 1959), contagion costs as problems (e.g. brand damage) from one business spill over to another business (e.g. Greenwood, Li, Prakash, and Deephouse, 2005); compromise costs that undercut the value addition of an asset in each specific use to make it usable across different uses (e.g. Porter, 1980; Zahavi and Lavie, 2013); vertical integration and administrative costs relating to the rigidities of an integrated or complex structure (e.g. Jones and Hill, 1988; Sutherland, 1980; Williamson, 1975); costs of adaptation of the currently

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institutionalized routines and practices (e.g. Leonard- Barton, 1992; Kaplan and Henderson, 2005; Rawley, 2010); conflict costs arising from internal competition between divisions (e.g. Hoskisson and Hitt, 1988).

Similarly, the re-deployment literature has also referred to both re-deployment benefits as well as adjustment or adaptation costs in re-deployment (Helfat and Eisenhardt, 2004). Re-deployment benefits arise from using an existing asset in a new venture wherein the prior access to the asset lowers the cost of obtaining its services in the new domain (Helfat and Eisenhardt, 2004, Karim and Mitchell, 2000; Sakhartov and Folta, 2014a,b). Re-deployment benefits will usually arise in contexts where the market for the relevant assets is imperfect. Indeed if the assets could be sold for their full value correctly accounting for opportunity costs would imply that there are no re-deployment benefits. A re-deployment can however simultaneously create adjustment costs, which are the costs of transferring resources between businesses, including the time that it takes to re-deploy resources (Helfat and Eisenhardt, 2004; Helfat and Raubitschek, 2000; Kogut and Kulatilaka, 1994; Sakhartov and Folta, 2014a). These can be direct costs of resource transfer, such as expenses of moving people and equipment between businesses, or indirect costs of resource transfer, such as disruption to existing businesses over these moves and time delays that may result in foregone revenues (Helfat and Eisenhardt, 2004).

In the context of multiple business models the constructs of co-deployment and re-deployment and their attendant costs and benefits potentially come into play at two levels. If we assume that the incumbent in question is a single business firm then the co-deployment and re-deployment constructs arise in terms of sharing or re-deployment of assets across business models within a business. However, it is also possible that the incumbent is itself a multi-business corporation. In such an event in addition to the within-business co-deployment and re-

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deployment possibilities there is also the possibility of across business sharing or re-deployment of assets, raising the possibility of co-deployment and re-deployment benefits and costs at another level. For instance in confronting a point-to point competitor in the airline industry (eg. Jet Blue, Southwest) an incumbent such as Delta may consider how to share assets between not just its main hub and spoke business (Delta) and point to point business (Delta-Song) but also its cargo business. Or Wal-Mart may need to consider resource allocation not just across its online (Wal-Mart.com) and offline businesses (Wal-Mart Stores) but also its ware-house club business (Sam's Club). The possibilities of co-deployment and re-deployment of assets across other businesses that are owned by the incumbent under attack, beyond the business that is being attacked, could also influence an incumbent's response in the business that it is being attacked in. In our analysis of the question of the incumbent's response we will consider the influence of both within-business and across business re-deployment and co-deployment benefits and costs.

However, relatively little work has targeted the question of what are the different strategies available to an incumbent as they face a challenger with a new business models and under what conditions are incumbents likely to pick a particular choice over another. It is to this task that we now turn.

THE INCUMBENT'S RESPONSE TO AN ENTRANT WITH A NEW BUSINESS MODEL

When examining the issue of how incumbents should respond to the entrants intrusion with a new business model, much work has focused on how the incumbent could run parallel business models (e.g. see Casadesus-Masanell and Zhu, 2010; Markides and Charitou, 2004) or mix the two models in a third one (e.g. Casadesus-Masanell and Llanes, 2009; Casadesus-Masanell and

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Zhu, 2010). For instance, in 1998 British Airways launched a separate airline, GO, to compete against European low-cost airlines such as Ryanair (Casadesus-Masanell and Zhu, 2013; Rivkin, 2000). A second combination consists of combining the characteristics of the two business model in a "mixed" or "hybrid" business model (e.g. Bonaccorsi, Giannangeli and Rossi, 2006; Bonaccorsi and Rossi, 2003; Casadesus- Masanell and Zhu, 2010; Chesbrough and Appleyard, 2007). For instance customers could order online but pick up in from a physical store.

Yet, these are not the only strategies available to an incumbent. Given the existential importance of this question from the incumbent's perspective, and the complexity of maintaining combination models, it is important to understand more broadly a holistic set of competitive alternatives available to the incumbent in the face of an entrant's attack. Ghemawat (2001) enumerated possibly the first (and probably most comprehensive) such schema describing the incumbents' choices through terms such as Straddle, Switch, Recombine, Harvest, Fight, Non-Response. Casadesus-Masanell and colleagues have provided another schema describing Pure, Mixed and Dual strategies (Casadesus-Masanell and Llanes, 2009; Casadesus-Masanell and Zhu, 2010). Bonaccorsi, Giannangeli and Rossi (2010) also present a typology of Pure and Hybrid strategies.

We build upon this past work, especially Ghemawat's typology and we suggest that thinking about the incumbent's choice as a co-deployment versus re-deployment decision could help in providing a more holistic set of choices for the incumbent. If we look at the problem from the perspective of the incumbent, it faces two decisions that are not mutually exclusive. First, it can decide whether to adopt the new business model as it is, modify it and adopt it or reject it. Second, it can decide whether to retain the old business model, to modify it and retain it or reject it. These two dimensions (i.e. Extent of Adoption of the New Business Model; Extent of

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Commitment to the Existing Business Model) can be considered as continuous and, as a consequence, the strategic choices that emerge from combining them are in principle an infinite number. However, for analytic convenience, we identify discrete strategies that emerge from taking into consideration the intersections between certain levels of these choices.

Using alliteration as a mnemonic device we offer "s" labels for these seven strategies: Straddle, Status Quo, Synthesis, Strengthen, Switch, and Scoot/ Start Over. Conceptualizing the problem in this fashion allows us to identify the incumbent's options more systematically and completely. Note that the two dimensions that define this matrix are also the two dimensions that could be used to define the constructs of re-deployment and co-deployment in a business model setting since co-deployment implies investment in the new business model without withdrawal of commitment from the old one and re-deployment implies investment in the new business model and withdrawal of commitment from the old one. Hence, the construct of re-deployment is going to be more relevant for the strategies at the bottom-left side of the matrix, while the construct of co-deployment is more relevant for the strategies in the top-right side of the matrix. This derivation of the strategies is also holistic in the sense that it enables us to integrate all the available typologies in prior literature. In Table 1 we match up the S terminology with the corresponding differing terms used in the literature where they are available. In the next section we describe each strategy more completely and also offer propositions predicting their adoption by the incumbent.

INSERT TABLE 1 ABOUT HERE

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CHOOSING BETWEEN RESPONSE STRATEGIES

The previous section highlighted a set of different strategies that incumbents could use to compete against an entrant with a new business model. Despite their relevance in improving our understanding of the problem, prior research provides only limited guidance on the set of conditions that might lead to one choice versus the other (see related pieces by Casadesus-Masanell and Zhu, 2010; 2013; Ghemawat, 2001; Markides and Charitou, 2004).

In this section of the paper we describe the strategies presented in Table 1 and identify some of the factors that could induce an incumbent to select that strategic choice. In principle there are likely to be many factors influencing the decision of choosing one response over another. However, given the scope of this study, and to theoretically bound our focus we will concentrate our attention on the key components that our prior discussion has unearthed. Our analysis of a new business model's effects on an industry suggests that in evaluating the incumbent's decision we need to consider the uncertainties it generates in terms of the relative efficacy of the two models and the value of the assets of the incumbent. Additionally, we also need to consider the effects of market dynamics that emerge from the new business model entering the industry, in as much as it leads to the discovery of new customers and segments or the cannibalization of the incumbent's existing customers.

Our review of the co-deployment and re-deployment literature suggests that two other factors would also be natural determinants of the decision – the benefits and costs of within business re-deployment and co-deployment and across-business co-deployment and re-deployment. Finally, a fifth key consideration is identified by our scope condition in that our

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model applies to incumbents. Given the focus on incumbents we need to recognize that their status as incumbents conveys certain endowments and constraints. Thus, to summarize, we build on five sets of factors that may influence an incumbent's response to an entrant with a new business model – 1) the uncertainty created by the entrants entry with regard to the relative efficacy of the two models and the value of the incumbent's assets, 2) the new business model's effect on market dynamics in terms of whether it leads to the discovery of a new customer segment and to an expansion of the market or that it targets an existing set of customers and simply cannibalizes the existing sales, 3) the possibilities and incidence of within-business-across-business-model co-deployment and re-deployment costs and benefits, 4) Across-business co-deployment and re-deployment costs and benefits, and 5) the incumbents' prior commitments and expectations set because of its historic presence in the industry. We focus on these five set of factors to help us understand what drives the choice of a given S strategy. In examining the above factors for each of the seven S strategies we focus on a select subset of factors that we see as most clearly helping us make a prediction about that specific strategy. We describe the strategies and our predictions beginning from the strategy that is most conservative with respect to change from the incumbent's perspective and then move across to increasingly distant strategies. Table 2 summarizes the propositions and highlights these five factors.

INSERT TABLE 2 ABOUT HERE

Choosing the status quo strategy

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The Status quo strategy corresponds to the situation in which the incumbent (e.g. Blockbuster) retains the existing business model as it is and rejects the new business model. In other words, it chooses not to react to the entrant, but stays on its own prior course. The uncertainties generated by a new business model are likely to be central in the decision to go with status quo. When a new business model emerges there may be uncertainty in the perception of the potential customers regarding the competitive viability of the new model versus the incumbent one (Humphreys and Latour, 2013). In such a context an incumbent's adoption or even reaction to the new business model may be interpreted as legitimizing the new model (McKendrick and Carrolls, 2001; McKendrick, Jaffee, Carrols and Khessina, 2003; Polos, Hannan and Carroll, 2002). Therefore, the incumbent may strategically choose not to react to the model (Berger, Fisek, Ridgeway, and Norman, 1998). The higher the uncertainty about the relative viability of the two models the more likely that the incumbent may prefer not to legitimize the model by making changes to its own strategy.

In addition, the tendency to remain with the status quo will be particularly high in the presence of high co-deployment costs from a competing business model such as conflict costs, and higher re-deployment or adaptation costs. Getting into the new business model may necessitate different routines, logics and skills. Such an organizational transformation will require not just a significant conceptual effort to develop and implement the new model (cf. Rivkin's failures of inspiration), but will also entail redistribution of organizational power to the parts of the organization that house the new business model from the parts that housed the old model. Such a power redistribution may not be attractive to management (Rajan, Servaes, Zingales, 2000; Rajan and Zingales, 1997, Stulz, 1990).

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Finally, the revaluation of the firm's assets that is highlighted by the entry of new business model provides another mechanism to understand the emergence of a status quo strategy. Highly specific assets that have limited value in another business or business model may provide the firm with another reason to stay with the current business model. Since such assets would have limited outside value, staying in the current business model and sweating the assets (a "harvesting" strategy) till their value goes to zero may be a better alternative. Although in principle the costs on such assets are sunk and should not prevent the firm from switching to a new model if the new model is superior (and hence adopt a straddle strategy), evidence suggests that corporations are often excessively influenced by past commitments (e.g. Feldman, 2014; Folta, Johnson and O'Brien, 2006; Staw, 1981).

P1*: The probability of incumbents adopting a "Status Quo" strategy is higher*, the higher the uncertainty about the viability of the new business model, the lower the marketability of the *incumbent's assets* outside the existing business, and the higher the co-deployment and re-deployment costs..

Choosing the strengthen strategy

The Strengthen strategy is based on the incumbent rejecting the entrant's new business model but modifying its own to be more competitive with the new model. For instance, Blockbuster being able to renegotiate lower rents for its stores or increasing automation at the stores to lower costs would be illustrations wherein it would have strengthened its model in response to the Netflix incursion. Similarly, HP improving its reseller-based business model through actions such as enhanced inventory management to reduce working capital requirements or acquiring Compaq to

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increase procurement scale and lower costs to compete with Dell's customized-build and direct sales model would be another illustration of strengthening.

The decision to infuse resources into the existing model while ignoring the new one is likely to be most consistent with a context wherein there is low uncertainty about the viability of the new model but where there is some ambiguity about the relative performance of the two models (O'Brien, Folta and Johnson, 2003). Specifically ,if the uncertainty is reduced because it becomes clearer that the performance of the two models in serving the same set of customers is really similar even though the models are fundamentally different there may be incentives for the incumbent to strengthen the existing business model may serve as a mechanism to break the stalemate.

From the point of market dynamics if the new business model targets customer segments in the underlying market that have fundamentally different preferences (e.g. Sakhartov and Folta, 2014b) there are incentives for incumbent to strengthen its own model. For instance, if the customers targeted by the existing model continue to be significant and have different preferences than the customers targeted by the new business model, the incumbent will likely be persuaded to invest in strengthening the model as such strengthening may be a way to "keep" the customers who have already expressed a preference for the incumbent's model and prevent the entrant from eventually coming after those customers.

High re-deployment costs for instance when the value of the incumbent assets is specific to the existing business model, would also favor a Strengthen strategy. For instance, this could be the case when the incumbent business model has a long and storied history of success so that the brand is strongly associated with that business model (e.g. Kodak and film processing). In this

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case, re-deploying those assets outside of the original business model would incur high re-deployment costs.

At the same time, the incumbent's prior commitments to the existing model may also lead to perceptual biases favoring the existing model relative to the old one (Ahuja and Lampert, 2001). If the incumbent's original model provided historically superior returns relative to the new business model (e.g. Kodak and film processing), the new model with lower expected returns may be considered unacceptable and may be unfavorably evaluated. Research suggests that readjusting expectations downward is more difficult (e.g. Oliver, 1977). Having experienced higher returns from the incumbent business model managers may seek to perpetuate them by strengthening the incumbent model rather than accept another model with lower returns.

Finally, a fourth argument for strengthening would emerge strongly if there were sharp conflicts in the activities required to execute the two business models simultaneously. In such an event the synthesize and straddle options are likely to be of limited value, enhancing the attractiveness of strengthening the model.

P2*: The probability of incumbents adopting a "Strengthen" strategy is higher, the lower the* overlap between the customer preferences in the segments targeted by the old and the new model, the closer the expected competitive performance of the two models, the higher the gap between the *incumbent's historic profitability* and the projected profitability of the new model, and the higher the co-deployment and re-deployment costs.

Choosing the straddle strategy

The Straddle strategy refers to the case in which the incumbent retains the current business model as it is but also –simultaneously – adopts the new one, in a dual strategy mode (e.g.

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Casadesus- Masanell and Zhu, 2010; Markides and Charitou, 2004). This would correspond to the hypothetical situation in which Blockbuster retained its existing rent-from-physical store business model but had simultaneously started a parallel rent-through-mail model. The hub and spoke airlines founding of low-cost subsidiaries could be another illustration of this strategy (British Airways and Go; Singapore Airlines and Silk Air, Rivkin, 2000). This is perhaps the most widely referred to strategy in the literature and also one of the common reactions that students and executives express when faced with the problem of an entrant with a new business model. In part the argument for this strategy is expressed as – "firms commonly diversify into related product categories and this is perhaps the case of an extremely closely related market so wouldn't it make sense to respond with this?". To explore the logic of this common argument we harken back to the underlying theory of related diversification that underlies this argument and establish why it may not be perfectly applicable in the dual business model setting even when it does apply to the related product setting more generally.

In her seminal work seeking to explain the growth and diversification of a firm Penrose (1959) identified the downward sloping demand curve as a natural limit to the firm's growth. In her argument the negatively sloped demand curve and its attendant even more steeply downward sloping marginal revenue curve would cause the single product firm to reach a natural limit to its size even if one assumed constant marginal costs as the downward sloping marginal curve intersected with the marginal cost curve.

However, as Penrose argued, such a demand constraint could be loosened if the firm were to expand into an additional product market. In this case, the notional "total demand" curve facing the firm would move outwards relaxing the constraint to the firm's growth. If, in addition, the firm had excess capacity in critical fixed "factors" then such growth could be quite profitable

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for the firm as a) the additional volume of sales obtained from the "new" market would effectively further spread the costs of such fixed factors, and b) this expansion into adjacent markets would hurt pricing less than expanding volume in the existing market – where all high-willingness-to-pay customers were already served and where only cutting prices could expand demand (Penrose,1959). Thus, in the Penrose formulation, diversification into a second product was helpful in a) better amortizing the costs of the fixed factors, i.e. the fixed costs and b) that it provided new demand and thus avoiding depressing pricing in the existing market as you sought to better exploit the fixed factors (Penrose,1959).

Applying the above reasoning to the single-product-dual-business-model firm highlights some important differences between the diversified firm and single-product-multiple-business model contexts: most importantly, expansion into a second business model does not necessarily increase the addressable demand facing the firm. Unlike the Penrosian diversification-into-a-different-product-market case, there is a risk that that the second business model cannibalizes the first one as typically with a second business –model a new product-market is not necessarily added and the product sold is essentially the same. At the same time, when a firm launches a second business model, it will likely need to add some resources to operationalize it. The firm may already own such resources as it is using them in the first business model; alternately it needs to acquire them. Even if the firm already owns such assets there are likely to be significant re-deployment costs. Either way there are going to be potentially significant costs to be written off against any incremental revenue obtained through the new business model. Thus, unlike the Penrosian diversification case, there is a risk that that the second business model cannibalizes the first one as the product sold is essentially the same, while absorbing some of the firm resources in the process of business model operationalization. One factor that can overcome the above

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dynamic is the possibility that the new business model uncovers a new set of customers that hitherto were not consuming the product or causes existing customers to consume more of the product because it is made available in a different way. Such an event could then neutralize the above effect and even provide a revenue increase thus enhancing the possibility of a straddle.

On the cost side we note that if the resources to be used in operationalizing the second model are scale-free they can probably be shared across the two models creating synergy benefits (Bryce and Winter, 2009; Levinthal and Wu, 2010). However, it is likely that even scale-free resources, such as technology and brands, might imply additional types of co-deployment costs when they are used in additional applications (e.g. Ahuja and Novelli, 2015). First, they might imply adaptation costs to tailor them to the second model (e.g. modifying your warehousing procedures to accommodate online and offline models, even if you are using existing warehouse capacity; adapting your technological ordering system to interface with both physical and online customers; advertising, to indicate that you provide coordinated offline-online shopping, e.g. Leonard- Barton, 1992; Kaplan and Henderson, 2005; Rawley, 2010). Second, such resources are likely to need coordination if they are to be shared across the two models bringing in coordination costs (e.g. Hill and Hoskisson, 1987; Rawley 2010; Zhou, 2011). Third, such resources may be subjected to both conflict and compromise costs. If the resources in question are not scale-free they need to be re-deployed to serve the second model. In such a case there are likely to be various re-deployment costs as well (e.g. Helfat and Eisenhardt, 2004).

These arguments imply that, because in the case of dual business models the potential demand does not necessarily increase but the costs of synergies and re-deployment might do so, the conditions under which a straddle strategy generates value for a single-business firm might be more stringent than in the case of a multi-business firm expanding in multiple markets.

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Specifically, if the market size does not truly expand with the new business model or if there are significant co-deployment or re-deployment costs it may be difficult to justify a second business model and, hence, a straddle strategy. This leads us to suggest that:

P3: The probability of incumbents adopting a "Straddle" strategy is higher, the greater the new business model expands the market by either converting non-customers to customers or causing an increase in the level of co*nsumption of existing customers, the lower the "co*-deployment *costs" of running the two business models in parallel and the lower the "*re-deployment *costs" of* moving resources from one business model to another

Choosing the synthesis strategy

An incumbent could also choose to modify its existing business model by incorporating components of the new business model and creating a mixed or hybrid version of the model (e.g. Ghemawat 2001, Casadesus-Masanell and Llanes, 2009; Casadesus-Masanell and Zhu, 2010) an option we label "Synthesize" to capture the idea of mixing elements from two business models to create a new one. For instance, Blockbuster could permit its customers to order online but return to the physical store. Or it could eliminate late fees to make itself more attractive to customers. This strategy essentially leads to the emergence of business model innovation by recombination. For successful synthesis parts of the model have to be fused with parts of the new model. Such a re-deployment of the old model assets is much easier if there are low adaptation costs. Further, the motivation to seek a synthesis model would be greater if the new model is not really expanding the market, moving the incumbent away from a straddle strategy.

When there is limited conflict between the features of two business models and they can be seamlessly integrated one would naturally expect to see use of synthesis option. However,

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perhaps more interesting are circumstances in which there is a conflict between the two business models and yet the incumbent may choose synthesis (e.g. Casadesus – Masanell and Llanes, 2009). One such circumstance would be the case in which the new business model dominates the old one due to its incorporation of a central and meaningful innovation; one that is extremely attractive to customers. In the context of such a must-have feature in a business-model isomorphic legitimization pressures will force the incumbent to adopt such features (e.g. McKendrick and Carrolls, 2001). Since the feature is desired or regarded as critical the incumbent is forced to adopt it even though it may create an internal conflict in the incumbent's business model. Illustrations of such occurrences include standardized PC makers including customization in their value proposition, Blockbuster introducing no late fees and partial online-offline integration.

P4. *The probability of incumbents adopting a "Synthesis" strategy is higher* the lower the re-deployment costs, the smaller the market size increment from the new model, and the greater the extent to which the new business model domination of the old one depends on a significant novelty that enhances WTP significantly for some customer segment even if such novelty does not *necessarily fit well with the incumbent's* existing model and commitments.

Choosing the switch strategy

The Switch strategy corresponds to the situation in which the incumbent decides to drop the existing business model and switch to the new one. This would correspond to the hypothetical situation in which Blockbuster decides to completely reject the rent-from-physical-store model and sells off all its stores and starts a new rental by mail model like Netflix, to compete against Netflix in the rent-from-mail arena.

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Switching from one business model to another entails essentially the re-deployment of the firm's resources from the first business model to the second one (Helfat and Eisenhardt, 2004). A decision by a firm to switch to a completely different business model and drop the existing one would naturally make most sense if the new business model very visibly competitively dominates the old one in the sense that there remain no substantial set of customers for which the wedge between willingness to pay and cost for the incumbent model is greater than for the challenging model (Ghemawat and Rivkin, 2006; Penrose, 1959; Sakhartov and Folta, 2014a).Thus reduction of uncertainty and establishing the superiority of the new models increases the probability and the speed of switching.

Such a switch is more likely to happen the fewer the constraints to the firm dropping its existing business model, i.e. when the costs of re-deployment are low (e.g. Karim, 2012; Penrose, 1959). Further, if the firm is diversified into other product categories and is using its current resources to obtain synergies by sharing those resources across multiple product lines, paradoxically its degrees of freedom to switch may be limited. This conclusion draws from the basic idea that, in a related diversifier, resources are shared across businesses (e.g Grant and Jammine, 1988; Palepu, 1985; Rumelt, 1974; 1982). If a given business faces a new business model that requires it to switch in a relatedly-diversified firm such a switch would be more difficult to accomplish because the set of resources to be re-deployed were being shared across businesses and such a re-deployment may not be interests of the other businesses.

Thus, incumbents with many related businesses may have less freedom to "switch away" from an existing business model to a new one because the assets are currently being shared across multiple businesses and changing the business model in one business may have ripple

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effects in other businesses. In other words, prior pursuit of synergy may limit the firm's ability to re-deploy (e.g. Feldman, 2014; Folta, Johnson and O'Brien, 2006). These arguments suggest:

P5. *The probability of incumbents adopting a "Switch" strategy is higher*, the less the uncertainty about the efficacy of the new model over the old one, the lower the costs of re-deployment, the fewer the other related businesses of the company (higher across-business co-deployment benefits) that use the same assets.

Choosing the scoot /start over strategy

Another possibility emerges when the incumbent decides to reject both models and either responds with a new business model different from the previous two (Start over) or to re-deploys the assets in a different business or possibly liquidates the business by selling to another firm (Scoot). For instance a firm unable to compete in the PC market develops a "thin client" approach wherein they provide computing services through larger server computers coupled with stripped down "dumber" terminals for individual users thus reducing the need for full-featured personal computers. The same type of response could also be envisaged in the opposite direction, where the firm focuses on one key subpart of the product and becomes a supplier for that and hence specializes on a sub-segment of the original market where its business model still retails a competitive advantage. GE and IBM have responded with such strategies when faced with competition from new business models that provided a commoditized version of their specialty services.

In a scoot/start over strategy the incumbent essentially exits from the focal market rapidly in the face of the new business model. Clearly, for such a call to be made, the incumbent should be quite clear that their model is competitively dominated (Ghemawat, 2001). However,

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scooting/ starting over depends not only on the incumbent's assessment that their model will be dominated. An exit decision is facilitated if the assets can be re-deployed in some other business or through the creation of another business model (Anand and Singh, 1997; Helfat and Lieberman, 2002; Lee, Folta and Lieberman, 2012; Sakhartov and Folta,2014a,b). Hence, the more generic the assets the more likely the incumbent is to scoot/start over. However, if the incumbent's assets are more specialized, for a scoot/start over strategy to be executed there would need to be buyers with different valuations at the other end of the trade (Barney, 1986; Bazerman and Samuelson, 1983).

The ability to devise a scoot/start over strategy is of course contingent upon the creativity of the focal firm as it responds to the new business model. However, it is likely that other firm characteristics may also influence its ability to develop a new model after dropping the existing one and rejecting the new one. If a firm is active in multiple related businesses several factors suggest that its motivation to find a new model, and likely its ability to do so, are going to be high. Presence in multiple related business implies that exit from one of those businesses is difficult to consider, as it will affect the synergies the corporation is based on. At the same time if the firm's business model in the focal business is being outcompeted, the focal business may not remain viable for long. The multiple businesses in turn could potentially also serve as a source for providing complementary services that may lead to a different type of business model (e.g. Chesbrough and Appleyard, 2007). The joint availability of resources and necessity of developing an alternate model should be supportive of developing scoot/start over strategies.

P6. *The probability of incumbents adopting a "Scoot"/"Start Over" strategy is higher, the more* generic the assets being used in the existing business (low across-business re-deployment costs)

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or the greater the variance in the valuation of specific assets, and the greater the number of related businesses (greater across-business synergies) of the incumbent.

DISCUSSION

Historically, the constructs of co-deployment and re-deployment have been considered relevant in the context of firms' decision of investing in different businesses (e.g. Helfat and Eisenhardt, 2004; Sakhartov and Folta, 2014b). This paper contributes to research in this domain by exploring the boundaries of application of the constructs of co-deployment and re-deployment through its use in the context of the choice faced by incumbent firms when a competing business model emerges in the market.

Different from the phenomenon in which the emergence of a new business model is driven by the emergence of new technological innovation (Tripsas & Gavetti, 2000), we focus on the phenomenon in which new, competing, business models emerge in the markets in which the firm operates and we analyzed the possible strategic responses taking an incumbent's perspective. Specifically, we review and integrate existing literature on business models and identify seven strategies that incumbents can choose. If the incumbent firm decides to not adopt the new business model it can employ a status quo strategy (i.e. maintaining the existing business model), it can change the existing business model to make it stronger in the face of the competition created by the new model, or it can 'scoot' and liquidate or reconfigure existing resources and asset to use them in other contexts. Alternatively, the incumbent can adopt the new business model and run it in parallel with the existing one ('straddle'); it can modify the existing model synthesizing in it features of the new one, it can completely switch to the new model.

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Note that adapting the ideas related to the co-employment and re-deployment of resources from the diversified firm to the single business-multi-business-model draws attention to how the underlying costs are likely to differ in their incidence across these settings. For instance, one could argue that conflict costs related to the co-employment of resources may well get worsened in the context of the straddling firm (i.e. implementing two business models in parallel) relative to a related diversifier, because the final product delivered across both business models of the straddling firm might be essentially identical; hence, the unit heads commanding the separate models may see themselves as in direct competition (Markides and Charitou, 2004). In contrast the compromise costs generated may be significantly lowered in many straddling cases (relative to the same costs to the in the context of relatedly-diversified firms exploiting a synergy) due to the very same fact that the final products in the straddle setting are very close. In contrast, we could also imagine that the products being so close in the straddle setting may falsely convince managers that adaptation costs across the two models are very low (Leonard- Barton, 1992; Kaplan and Henderson, 2005; Rawley, 2010); in fact it may be the case that running an internet based business model may be very different from running a brick and mortar business model for the same product.

The bottom line to this argument is that the co-deployment and re-deployment literatures provide a very useful set of constructs to apply to the business models literature in this setting; however, the incidence and level of the relevant costs and benefits may be different in the cases of related diversifiers versus single-business-multi-model firms. Reflecting upon the similarities and differences between related diversified firms and single-business multiple-business-model firms helps to uncover the circumstances under which firms may choose between various responses to react to new business models.

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Clearly, further research will be required to identify a more complete set of conditions that will enhance our understanding of incumbent-entrant business model dynamics. Further, from an empirical standpoint, these hypotheses present a rich agenda for validation or refutation. A further task yet is to integrate this analysis of competitive responses to a new business model with the collaborative responses that are possible when a new business model emerges. Overall these possibilities suggest that applying established theories and constructs to the world of business models promises a fecund research agenda.

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TABLES

TABLE 1: The Incumbent's Choices

		EXTENT OF ADOPTION OF THE NEW BUSINESS MODEL		
		REJECT	MODIFY & ADOPT	ADOPT AS IS
EXTENT OF COMMITMENT TO THE EXISTING BUSINESS MODEL	RETAIN AS IS	**STATUS QUO** (Co-deployment and re-deployment not meaningful) Pure model (Bonaccorsi, Giannangeli and Rossi, 2010, Casadesus-Masanell and Llanes, 2009; Casadesus-Masanell and Zhu, 2010); Not responding (Ghemawat, 2001)	**STRADDLE** (Co-deployment across old and new business model) Dual business model (Markides and Charitou, 2004; Casadesus-Masanell and Zhu, 2010); Straddling (Ghemawat, 2001)	**STRADDLE** (Co-deployment across old and new business model) Dual business model (Markides and Charitou, 2004; Casadesus-Masanell and Zhu, 2010); Straddling (Ghemawat, 2001)
	MODIFY & RETAIN	**STRENGTHEN** Fighting (Ghemawat, 2001)	**SYNTHESIZE** (Partial Re-deployment – some assets re-deployed in conjunction with some new assets) Mixed business model (Casadesus-Masanell and Llanes, 2009; Casadesus-Masanell and Zhu, 2010); Hybrid business model (Bonaccorsi, Giannangeli and Rossi, 2010); Recombining (Ghemawat, 2001)	**STRADDLE** (Co-deployment across old and new business model) Dual business model (Markides and Charitou, 2004; Casadesus-Masanell and Zhu, 2010); Straddling (Ghemawat, 2001)
	REJECT	**SCOOT** (Re-deployment in a different product market or liquidation) Harvesting (Ghemawat, 2001); **START OVER** (Re-deployment in the same product market)	**SWITCH** **(**Re-deployment into the new business model) Pure model (Bonaccorsi, Giannangeli and Rossi, 2010, Casadesus-Masanell and Llanes, 2009; Casadesus-Masanell and Zhu, 2010); Switching (Ghemawat, 2001)	**SWITCH** **(**Re-deployment into the new business model) Pure model (Bonaccorsi, Giannangeli and Rossi, 2010, Casadesus-Masanell and Llanes, 2009; Casadesus-Masanell and Zhu, 2010); Switching (Ghemawat, 2001)

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TABLE 2: Synthesis of Different Strategies, Factors Affecting Them and Propositions

STRATEGY	FACTORS AFECTING CHOICE	PROPOSITION
STATUS QUO	• Uncertainty about relative efficacy of business models, value of incumbents assets • Within-business-across business-model co-deployment and re-deployment costs • Across-business re-deployment costs	*P1: The probability of incumbents adopting a "Status Quo" strategy is higher, the higher* the uncertainty about the viability of the new business model, the lower the marketability of *the incumbent's assets outside the existing business, and the higher th*e co-deployment and re-deployment costs..
STRENGTHEN	• Uncertainty about relative efficacy of business models • Market - size effects of new business model • Incumbent prior experience and history • Within-business-across business-model co-deployment and re-deployment costs	*P2: The probability of incumbents adopting a "Strengthen" strategy is higher, the lower* the overlap between the customer preferences in the segments targeted by the old and the new model, the closer the expected competitive performance of the two models the higher *the gap between the incumbent's historic profitability and the projected profitability of the* new model, and the higher the co-deployment and re-deployment costs.
STRADDLE	• Market - size effects of new business model, • Within-business-across business-model co-deployment and re-deployment costs	*P3: The probability of incumbents adopting a "Straddle" strategy is higher, the greater the* new business model expands the market by either converting non-customers to customers or causing an increase in t*he level of consumption of existing customers, the lower the "co-deployment costs" of running the two business models in parallel and the lower the "re-deployment costs" of moving resources from one business model to another*
SYNTHESIS	• Market - size effects of new business model • Market - discovery of key customer preference • Within-business-across business-model re-deployment costs	*P4. The probability of incumbents adopting a "Synthesis" strategy is higher the lower the* re-deployment costs, the smaller the market size increment from the new model, and the greater the extent to which the new business model domination of the old one depends on a significant novelty that enhances WTP significantly for some customer segment even if such novelty does not ne*cessarily fit well with the incumbent's existing model and commitments.*
SWITCH	• Uncertainty about relative efficacy of business models, value of incumbents assets • Within-business-across business-model re-deployment costs • Across-business co-deployment benefits	*P5. The probability of incumbents adopting a "Switch" strategy is higher, the less the* uncertainty about the efficacy of the new model over the old one, the lower the costs of re-deployment, the fewer the other related businesses of the company that use the same assets.
SCOOT/ START OVER	• Uncertainty about relative efficacy of business models, value of incumbents assets • Across-business co-deployment benefits	*P6. The probability of incumbents adopting a "Scoot"/"Start Over" strategy is higher, the* more generic the assets being used in the existing business or the greater the variance in the valuation of specific assets, and the greater the number of related businesses of the incumbent.