

JOURNAL OF BUSINESS MODELS

A Typology of Business Model Reconfiguration in Incumbent Firms

Sarah S. Kenlind^{1,*} and Emelie Havemo²

Abstract

The purpose of this study is to shed light on patterns of change in incumbent firms and, in doing so, identify different types of approaches to business model reconfiguration (BMR). Drawing on data spanning a 10-year period in the empirical context of mature, low-tech firms in the Swedish wood manufacturing industry, this paper develops a typology of BMR approaches, namely Incremental, Modular, Integrated and Transformational BMR. The paper illustrates the nature of these types and offers several insights into the meaning and significance of each for our understanding of BMR and the design of business models in general.

Introduction

As competitive landscapes change, business model innovation becomes an important, but challenging, activity for managers of incumbent firms. Typically, incumbent firms' innovation focuses on reconfiguration of the existing business model (BMR), as

opposed to designing a new business model (BMD) from scratch, which is common in new ventures (Massa and Tucci, 2014). Reconfiguring a business model presents a particular challenge, as it requires firms to manage the tension between the old and the reconfigured business model (Massa and Hacklin,

Keywords: Business Model Reconfiguration, Mature Low-tech Industry, Typology

Acknowledgements: We are thankful for the inputs from Staffan Brege and Tomas Nord, the editor and reviewers, and the interviewees who participated in the study. The research received financial assistance from Vinnova.

Please cite this paper as: Kenlind, S. S., and Havemo, E. (2024), A Typology of Business Model Reconfiguration in Incumbent Firms, Journal of Business Models, Vol. 12, No. 1, pp. 43-59

¹⁻² CBMI – Centre for Business Model Innovation, Department of Management and Engineering, Linköping University, 581 83 Linköping, Sweden.

*sarah.a.kenlind@ericsson.com

2021) by opting for a level of reconfiguration in line with the business model's capacity for change while maintaining fit between the business model and its surrounding environment (Morris et al., 2005; Desyllas et al., 2022). Navigating the tensions of BMR can be difficult and requires a sound understanding of the types of change required, both theoretically and practically. At present, however, the business model innovation literature has shortcomings in systematically characterizing different types of change (Foss and Saebi, 2017), and in empirically conceptualizing different approaches to BMR (Desyllas et al., 2022). As a result, there is an opportunity to extend the business model literature through a systematic classification of BMR and to thereby contribute to the knowledge gap with regard to types of change involved in BMR.

To address the gap regarding BMR types, we follow Lambert (2015), who describes classification as a way to order reality into classes and groups to make sense of business models. Thus, the purpose of this study is to describe patterns of change in incumbent firms in order to develop a classification of BMR approaches. The empirical context of the Swedish wood manufacturing industry serves as an example of a setting with many mature incumbents. This setting is used to map BMR approaches in five case companies over a ten-year period (divided into two five-year change cycles) to support the development of a typology. The longitudinal case study design follows the work of Foss and Saebi (2017), who argue that longer-term perspectives on business model change support theorization of the complexities of BMR.

The rest of the paper is organized as follows. First, the theoretical underpinnings of the study, including an analytical framework to measure BMR, are outlined. We then describe the methodology and the empirical data. Next, the key insights section discusses the typology of business model reconfiguration, focusing in particular on advantages and disadvantages of the BMR types based on our analysis of the empirical cases. Finally, we conclude the paper with a discussion of the contributions, limitations, and avenues for future research.

Analytical Framework

This paper views business models as real entities at the level of firms. However, one way to capture real business model is to use visual representations of the construct (Massa et al., 2017). Building on the received literature, and anchoring in perspectives that seeks to visually represent the business model at the level of the main components (Morris et al., 2005; Hacklin and Wallnöfer, 2012) and the value creation (Teece, 2018), we distinguished nine components across three main dimensions (Osterwalder and Pigneur, 2010; Brege et al., 2014):

- the *operational platform* (key resources, key activities, and cost structure)
- the *offering* (products and services, value proposition, and revenue model)
- *market aspects* (customer segments, key actors and relationships, and channels)

Drawing on this conceptualization, BMR is defined as an event of change to one or several business model dimensions and sub-components during a certain period. It follows that the first step of identifying BMR patterns is to develop a way to measure change events at the level of business model sub-components. However, despite the vast knowledge about business model innovation amassed over the last two decades, there are few studies discussing how to measure business model innovation. Even in studies that do develop theoretical indicators of innovativeness, for example "product or target market changes" (Spieth and Schneider, 2016) or "employee training for new skills" (Claus, 2017), previous works rarely apply these measures empirically.

To address the lack of operationalizable measurement scales in the business model literature, we turned to studies on organizational change, from which two theoretical constructs were selected to operationalize business model change: *degree* of change and *scope* of change. By describing business model change according to these constructs, it is possible to capture both the depth and breadth of business model change and to describe the relationship between the constructs. This offers a more

nuanced way to classify business model change that is in line with Maes and Van Hootehem's (2011) view that change is a multidimensional concept that cannot be reduced to simple dichotomies (e.g., incremental vs. radical, continuous vs. episodic, or evolutionary vs. revolutionary). The two constructs are discussed in more detail below, including the indicators used to assess the empirical material. An example of how the indicators were applied to the empirical data is included in the Appendix.

Degree of change

Degree of change refers to how much the business model's dimensions and sub-components change: specifically, whether change is based on refinements (less change) or renewals (more change). The indicators used for degree of change are outlined in Table 1.

In this study, the prerequisite for any business model change to be classified as either renewed or refined is its effect on "standard repeated processes" (Cavalcante et al., 2011, p. 1329). For this reason, there were instances where change did not qualify as BMR (indicator D1 in Table 1). For instance, merely communicating a new value proposition without altering standard repeated processes to deliver this value, did not qualify. Another case of not qualifying was if change to the standard repeated processes did not improve or create functions, making it a misfit in that sub-component (Morris et al., 2005).

For changes that did qualify as BMR according to indicator D1, a distinction was made between incremental and extensive change in line with the organizational change literature. Specifically, Kindler's (1979) notion of incremental change involves changes that enhance

Table 1

Label	Indicators	Degree of change
D1	Change affected the standard repeated processes in the organization.	Prerequisite for labelling a change as either refinement or renewal
D2	Change involved improving existing functions in the business model sub-components or dimensions.	Refinement
D3	Change involved adding or removing functions in the business model sub-components or dimensions.	Renewal (if combined with D4 and/or D5)
D4	A considerable amount of resources (financial, tangible, human) was dedicated to the change.	Renewal (if combined with D3)
D5	The change was communicated to external audiences.	Renewal (if combined with D3)

Table 1: Indicators of the degree of change

existing functionality. Conversely, a thorough renewal involves substantial restructuring and transformative shifts (Maes and Van Hootegeem, 2011). When applied to our conceptualization of BMR, a distinction can thus be made between incremental updates to existing sub-components (indicator D2) and more extensive renewals based on transformational changes to central elements of the sub-components (indicator D3), such as shifting the primary sales channel from offline to online. This is in line with the understanding that business model innovation can be conceptualized on a scale from smaller refinements to more extensive transformations, which is broadly recognized in the business model literature, for example in studies describing radical business model transformations of companies such as Amazon (Ritala et al., 2014) and Uber (Teece, 2018) affecting entire industries.

Finally, empirical observations led us to conclude that the more extensive renewals of the business model were those that consumed considerable company resources (indicator D4), including communicative efforts to convey the change to the general public (indicator D5). This echoes the organizational change literature which argues that communicating a change can serve as an indicator of its importance (Romanelli and Tushman, 1994). Therefore, a change was categorized as renewal if indicator D3 as well as either D4 or D5 was present; however, if neither D4 nor D5 was present, the change was considered as

refinement as this meant that no considerable resources had been dedicated to see it through.

Scope of Change

Scope of change refers to the number of dimensions and sub-components of the business model that change as a result of an initial change event. For example, focused change to one dimension is less complex than integrated change to multiple dimensions at the same time, especially if the change aims to renew rather than refine the business model. The scope construct was used to capture the idea that the sub-components of a business model interact and that they may change dynamically because of this interaction (Demil and Lecocq, 2010). Given this interdependence, significant change in one sub-component often triggers changes in others. The distinction between focused and integrated change is not as widely discussed as the incremental-transformational dichotomy in the business model literature. However, we argue that it captures the potential for a change to disrupt the internal consistency between the elements, which is referred to as "fit" in the literature (Morris et al., 2005).

To measure the scope of business model change, the concept of orders of change by Kimberly and Nielsen (1975) was adopted to outline the difference between focused and integrated change. The indicators of the scope of change are shown in Table 2.

Type	Indicators	Scope of change
S1	Change did not affect any other sub-component	None (Focused)
S2	Change in one sub-component led to, or was combined with, change in other sub-components in the same dimension	First-order (Focused)
S3	Change led to change in several sub-components in at least one other business model dimension	Second-order (Integrated)
S4	Change led to change of most sub-components across all three dimensions	Third-order (Integrated)

Table 2: Indicators of the scope of change

First, indicator S1 denotes a change that is limited to a single sub-component, meaning it is highly focused and does not affect the rest of the business model. Moreover, in Kimberly and Nielsen's (1975) framework, first-order change (indicator S2) refers to change that is focused and contained within an organization's sub-system. Translated to the business model context, focused change refers to a change event where only one, or very few sub-components in the same dimension, are affected, i.e., when there is little to no chain effect. Second-order change (indicator S3), meanwhile, extends to other dimensions' sub-components, making it more integrated, as it requires modifying multiple sub-components during the same change event. Third-order change (indicator S4) impacts the entire system, often involving multiple factors or a chain of sequential change events (Kimberly and Nielsen, 1975).

Methodological Approach

The empirical setting of the paper is Swedish finished goods manufacturers in the mature, low-tech wood industry, which is often characterized by more slow-paced and incremental change (Lei and Slocum, 2005).

In this industry, firms create value by turning materials into wood-based products, such as windows, staircases, flooring, furniture, packaging, and timber-framed houses. Innovation activities have often focused on improving the operational platform's efficiency. However, several firms, including the five case firms in this study, were embracing digitalization and broadening both the scope and degree of change of their BMR by increasingly focusing on market aspects and offering dimensions of the business model as well. This led to a departure from the dominant model of slow change in the industry and made it a suitable empirical context for studying different approaches to BMR.

To capture different BMR types over time, a longitudinal qualitative case study (Eisenhardt, 1989) approach was adopted (per Foss and Saebi, 2017). Five incumbent firms of similar ages (around 70 years) and competitive outlooks were purposefully selected. The case firms utilized variations of mature, low-tech business models in the same industry, but differed in terms of size (four firms had 100–200 employees and one had around 900 employees), market position, and offering: see Table 3.

Table 3.

#	Case	Employees (2018)	Founded (decade)	Case summary
1	Stairs	120	1920s	Largest wooden staircase manufacturer in Sweden, it offers a wide range from standardized to customized staircases
2	Windows A	900	1920s	Biggest window manufacturer in Sweden, it offers a wide range of windows, from standardized to customized designs
3	Windows B	100	1910s	Smaller window manufacturer focusing on project-specific designs for larger construction customers
4	Prefab	190	1950s	Manufacturer of prefabricated turnkey modular buildings, fully standardized huts, or rental modules
5	Housing	200	1940s	Manufacturer of a wide range of houses from standardized to customized designs, including turnkey solutions

Table 3: Description of the five case companies

Data was gathered to cover the period between 2007 and 2018 via 26 in-depth interviews of 30–150 minutes each (60 mins on average) and company visits in 2018 and 2019. The interviewees held managerial positions: around 40% had worked at the case companies for over 10 years and were able to provide extensive retrospective data. Additionally, for a more comprehensive understanding of business model change, the data included annual reports from 2007 to 2018 of the case companies and their holding and sister companies (>70 annual reports in total).

We used a five-year cycle as the default cycle time to group business model change events and used the advent of digitalization initiatives as a key event delineating the two cycles. The fact that the firms, which started out with similar approaches to BMR, increasingly adopted more diverse BMR approaches, makes this empirical context conducive to develop and populate a typology of BMR approaches, particularly in mature firms. Due to the mature industry context, where change is slow-paced, choosing a five-year cycle as the default cycle time was considered appropriate. The advantage of using a set cycle length was that it allowed us to study change events at an empirically relevant pace of change in the chosen industry, but it is important to recognize that cycle lengths may differ between industries. An example of a change event is when the housing company (Case 5) changed its offering from selling only turnkey properties to also offering plots of land for construction. This shift required interdependent change across all dimensions of the business model, specifically the product, activities, value proposition, actors, and channels sub-components.

To develop a classification based on this empirical data in terms of BMR approaches, we adopted an abductive approach (Dubois and Gadde, 2002) which involved continuously iterating between the theoretical constructs and empirical insights. This ensured that context-specific empirical data was engaged with in the analysis, which is key to understanding business models in specific contexts (Karimi and Walter, 2016; Desyllas et al., 2022). A novel insight gained from this analytical strategy was that several BMR approaches were similar to innovation types described by Henderson and Clark (1990), who

outline four classes (incremental, modular, architectural, and radical) of innovation depending on the degree of change in the core concepts and the amount of change in the linkages between concepts. This and other connections were used to theorize the types of BMR in terms of innovation and change in the empirical data.

The criteria outlined in Table 1 and Table 2 were applied to the empirical data in order to categorize the case firms' BMR approaches (see the Appendix for an example of how the indicators were applied). The indicators of the scope and degree of change were applied to all the cases during both change cycles and resulted in a final classification of their BMR approaches. A visual illustration of the analytical results is presented in Figure 1, which shows where the cases were positioned along the scales of two analytical constructs.

Key Insights

The analysis revealed several different BMR approaches in the studied firms (see Figure 1). Figure 1 also illustrates that the case firms adopted more similar approaches during cycle 1 (either Incremental or Integrated BMR), which suggests relatively homogenous behaviour by the industry's incumbents. Notably, however, most firms changed their BMR approach between cycle 1 and cycle 2, resulting in a wider range of BMR approaches during cycle 2. Starting in 2012, digitalization of the economy, new strategic directions set by the firms' owners, and higher competitive pressures in the construction industry were key factors contributing to the firms changing the scope and degree of BMR. Drawing on the empirical cases, a typology of BMR was developed (see Table 4). Table 4 summarizes each BMR type, as well as the advantages and disadvantages of the types based on our analysis of the cases. The remainder of this chapter discusses the BMR types and their role in business model change.

Incremental BMR

Incremental BMR is defined as largely independent refinements of few sub-components. For example, the majority of the changes to Windows B's BMR during cycle 2 involved changes to the resources

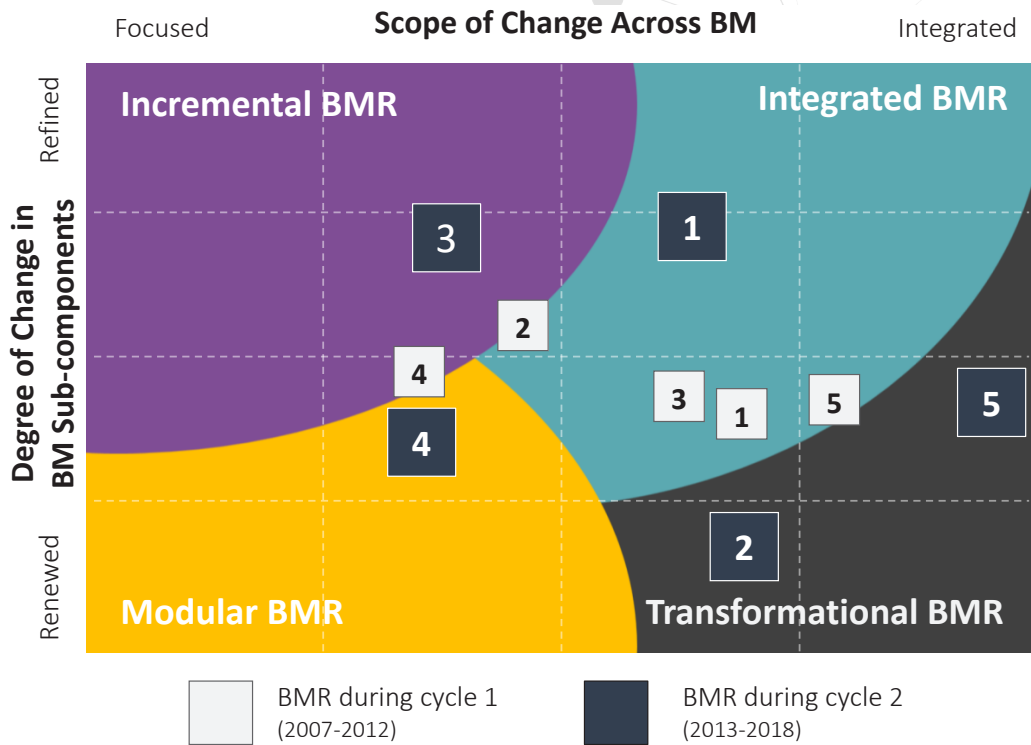


Figure 1: Business model reconfiguration (BMR) in the five manufacturing companies: Stairs [1], Windows A [2], Windows B [3], Prefab [4], Housing [5]

or activities (or both) in the operational platform dimension. This allowed the company to increase its resource efficiency and reduce costs, which is important in mature firms in competitive settings; however, as the changes were mainly limited to one dimension's sub-components, the Incremental BMR addressed only one aspect of value creation. Hence, the key role of Incremental BMR can be to fine-tune sub-components to improve specific parameters of the business model, for example resource efficiency.

Incremental BMR could be interpreted as making the "safe" choice, since limiting the change to one or two sub-components is less resource intensive as well as less risky. However, the empirical case of the windows manufacturer B (Case 3) suggests that the company did not experience as significant a financial performance increase as firms with other BMR approaches during cycle 2, which could imply that Incremental BMR suffers when it comes to long-term viability in cases where a higher degree of interconnected BMR is needed. Based on these

observations, we posit that Incremental BMR can be used for fine-tuning sub-components of the business model, especially if the business model and industry are both mature and the external environment is stable.

Modular BMR

Modular BMR involves the renewal of most, or all, of the sub-components within one dimension of the business model, such as the operational platform. It can be applied when one BM dimension is not performing as intended, as it allows that specific dimension to be updated independently of the other dimensions. However, the empirical data suggests that changing one dimension in this manner may be challenging, as it could result in reduced internal and external business model consistency. For example, the Prefab's (Case 4) renewal of the operational platform during cycle 2 focused on efficiency gains from automation through new machines and routines. The changes were not linked to the other dimensions or sub-components, such as the value proposition or

Table 4.

BMR type	Definition	Benefits	Challenges	Examples
Incremental	Independent refinements of few sub-components	Can be used to fine-tune specific sub-components, e.g., resources or activities	Less risky but may lead to less noticeable outcomes than other BMR types.	Windows B's [3] fine-tuning for resource efficiency during cycle 2
Modular	Renewal of most sub-components within one dimension	Can be useful when one dimension is not performing as well as the other two	Requires careful consideration of internal and external consistency of the new dimension.	Prefab's [4] focus on automation in the operational platform during cycle 2
Integrated	Interdependent refinements of sub-components in multiple dimensions	Can be used for cohesive, continuous updates to maintain consistency	Can result in path-dependent BMR due to changes focusing on refinement rather than renewal.	Stairs' [1] multiple linked refinements during cycle 2
Transformational	Interdependent renewals in all dimensions	High value creation potential. Can be useful in response to external change pressures	Can lead to overextension of an existing business model. May need to couple with a new parallel business model.	Windows A's [2] overextension of offering and Housing's [5] dual business model during cycle 2

Table 4: Typology of business model reconfigurations

channels. As a result, the company struggled to capitalize on its Modular BMR because the automation-oriented changes to the operational platform did not consider the impact on the market (i.e., customer relationships), which in Prefab's case was governed by powerful buyers demanding customized products rather than operational efficiency. From this example, we infer that Modular BMR could support targeted changes to revitalize a single dimension of the business model. However, it may not be as effective when

extensive changes to the business model are needed, as Modular BMR can lead to lower consistency (i.e., "fit") between the dimensions in the reconfigured business model, or between the reconfigured business model and the market.

Integrated BMR

Integrated BMR involves interdependent refinements of several sub-components across multiple dimensions. Thus, the reconfigured business model

retains the overall structure of value creation from the original business model, since the changes are primarily based on refinement rather than complete renewal. The empirical data illustrates the advantage of this approach through the stairs manufacturer (Case 1) during cycle 2. With the overarching goal of increasing profitability, the company undertook interconnected refinements across multiple dimensions of the business model. The BMR was initiated by a change to the operational platform's resource efficiency, which provided the momentum to carry out several interdependent refinements to the value proposition, the revenue model, and key actors and relationships. For example, the value proposition was refined through a high-quality brand concept that was communicated to customers as the unique selling point without changing the core product. These interconnected refinements ensured improvements in line with the firm's profitability goals without changing the value creation foundations. We therefore suggest that a key benefit of the Integrated BMR is that the business model retains internal fit throughout the reconfiguration because the fundamental structure does not change. However, the focus on refinements rather than renewals means that any critical issues in the current business model will remain in the new business model, which makes this BMR approach particularly sensitive to path-dependent decision making (see, e.g., Daood et al., 2021). Thus, there may be a tension between efficiency-oriented refinements of a tried-and-tested set of sub-components and the potential value to be gained from more extensive renewals.

Transformational BMR

Transformational BMR is the most extensive type of change which comprises interdependent renewals of most business model sub-components across all the dimensions. The empirical data covers both positive and negative outcomes from Transformational BMR. For example, in a bid to capture new market shares, the market-leader windows manufacturer (Case 2) transformed its value proposition, which was to make windows to order, by developing a supplementary offering focusing on standardized products. This involved renewals of all three dimensions of the business model and resulted in an extensive reconfiguration. However, in this case, customers continued

to expect bespoke products (the original value proposition), and the company lacked the means to effectively combine the production of both offerings with the same operational platform. Because of the extensive reconfigurations, the BMR thus turned into "fighting several battles at once" and ultimately resulted in an "overextension" of the business model. The example thereby shows that overextension is a challenge in Transformational BMR, particularly for companies lacking in time, knowledge, or resources to effectuate a reconfiguration across multiple business model dimensions at the same time.

Conversely, the empirical study also identified a case of Transformational BMR by the Housing manufacturer, which involved adding a new, second business model (i.e., BMD). The change focused on improving the product and the value proposition (i.e., the offering dimension), which was originally to sell single-family customizable houses, by introducing an entirely new, additional offering of standardized, off-site constructed multi-family housing. This example showcases the potential of Transformational BMR as a way to renew multiple aspects of the business model at once. In the example, the combination of BMR and BMD also served to mitigate the risk of overextension, since each business model was supported by its own operational platform. Drawing on these examples, we suggest that Transformational BMR has a high potential of increased value creation, as most of the business model dimensions and sub-components are renewed, but the benefits need to be compared with a higher risk of failure due to the added complexity of changing many dimensions of the business model at once.

Discussion and Conclusions

This paper developed a typology of BMR in response to the lack of systematic frameworks of business model change (Foss and Saebi, 2017). The typology, which adds new knowledge by classifying and ordering empirical data (Lambert, 2015), can guide both researchers and firms with a deeper understanding of BMR and the change involved in each type. Specifically, it can serve as a starting point for further explorations of business model reconfiguration. The

systematic approach to measure different types of change is also a valuable contribution as it adds to the limited work conducted on business model innovation measurement by, for example, Clauss (2017) and Spieth and Schneider (2016).

The discussion of the four BMR types shows that there are positives and negatives associated with each BMR type and that they may be more or less suitable depending on the company's goals and reason for engaging in BMR. The results thereby nuance the question of "how much" business model change is needed in a given situation (Desyllas et al., 2022) by identifying aspects to take into consideration when making this choice. Another insight offered by the typology is to show the "middle ground" of change that exists between the two extremes of degree of change in the literature: that is, incremental or radical change. By following Maes and Hootegem (2011), who encourage multidimensional conceptualizations of change, our analytical framework captures BMR along two scales, which results in a framework of four rather than two approaches to BMR. By classifying BMR types in this way, we show that firms have a wide range of BMR options beyond just incremental or radical innovation, each of which has its own advantages and disadvantages. Of particular note in our empirical context of mature low-tech firms is that, in contrast to the conventional wisdom that mature industries are characterized by mostly incremental innovation (Abernathy and Utterback, 1978), the cases were shown to benefit not only from Incremental BMR, but also from Transformational

and Integrated BMR, as a way to transform their business models in light of digitalization.

This study is not without limitations. Although the paper offers an initial typology of different BMR types and their advantages and disadvantages, which are supported by an in-depth qualitative case study, more research is needed to generalize the findings to other settings. For example, a study of high-velocity, high-tech settings found that small firms with novel business models may have an advantage compared to larger firms (Leppänen et al., 2023); this suggests that firm size and the external environment may affect BMR outcomes. A study of BMR approaches in different contexts (such as in high-velocity settings) and among different firm sizes (large and small firms) could thus prove fruitful to uncover insights into the relationship between BMR and contextual factors. Moreover, quantitative studies linking BMR to firm performance could add further depth when it comes to the challenge of balancing too much and too little BMR. Finally, the "low-tech" aspect of the chosen empirical setting was not explored in depth in this study. Although the cases showed signs of adopting increasingly advanced digital solutions, it was not possible to observe truly transformational digitalization during the course of the study. However, given the expectation that digitalization will affect most industries in the future, it would be interesting to study whether the observed role of the BMR types remains in other contexts facing digitalization, or if this is a unique characteristic of low-tech, mature firms' business models.

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About the Authors

Sarah S. Kenlind is a Senior Researcher at Ericsson IndustryLab. She previously was an Assistant Professor in Industrial management at Linköping University, where she worked closely with the Swedish wood manufacturing industry. Her research interests include context-specific business model changes, with a current focus on sustainable business model and ecosystem design.

Emelie Havemo is Assistant Professor in Industrial management. Her research interests include business model change and sustainability, with a special focus on the role of visualization in business model design and communication.

Appendix

To exemplify this analysis, we show the example of the assessment conducted of Case 3 (Windows manufacturer B) in Table A1 below. The criteria outlined in Table 1 and Table 2 (in the main text) were applied to empirical material collected about the cases in order to arrive at a classification of the cases' business model reconfiguration type.

In Table A1: E1, E2, etc. refer to the business model change events and the affected sub-components during each event; this is tallied at the bottom of the table under Decision (Scope). For example, the first change event (i.e., E1) in Case 3 during cycle 1 was triggered by a complete change in the firm's ownership brought about by a new holding company. As a result of this change trigger, the key resources changed through renewals in firm's human and financial resources and the key actors and relationships changed through a newly formed collaboration with sister companies. Based on the indicators, the total scope of change during a cycle was the average scope score in all the change events observed during the cycle.

Meanwhile, D1-D5 in Table A1 refer to the presence of the five indicators of degree of change for the assessed business model sub-components. The decision on the degree of change is tallied in the Decision column based on the five indicators according to Table 1 in the main text. For example, during cycle 1, the key resources were deemed to have been renewed because the change events involved change to the company's standard repeated processes (D1) and because it involved significant change to the functions of that sub-component (D3), rather than refining existing functions (D2). Finally, considerable resources were dedicated to change (D4), and the renewal was communicated to external audiences (D5), suggesting the resource change (including financial and staff changes) was both extensive and important. Based on these indicators, the total degree of change during a cycle was determined by whether refinements or renewals comprised the majority of the sub-components' degree decisions.

Table A1

Change Cycle 1 (2007-2012): Integrated scope + Renewal degree (X shows indicator presence)

Business model elements		Scope of change		Degree of change					
Dimension	Sub-component	E1	E2	D1	D2	D3	D4	D5	Decision (Degree)
<i>Operational platform</i>	Key resources	X	X	X		X	X	X	Renew
	Key activities		X	X		X	X	X	Renew
	Cost structure								-
<i>Offering</i>	Products and services		X	X	X	X		X	Renew
	Value proposition								-
	Revenue model								-
<i>Market aspects</i>	Customer segments							X	-
	Key actors and relationships	X	X	X	X	X		X	Renew
	Channels	X	X	X	X	X			Refine
	<i>Decision (Scope)</i>	S3	S3						

Table A1: Example of an assessment table in Case 3 (Windows manufacturer B).

Table A1

Change Cycle 2 (2013-2018): Focused scope + Refinement degree (X shows indicator presence)

Business model elements		Scope of change					Degree of change					
Dimension	Sub-component	E1	E2	E3	E4	E5	D1	D2	D3	D4	D5	Decision (Degree)
<i>Operational platform</i>	Key resources		X	X		X	X	X		X	X	Refine
	Key activities	X	X	X		X	X	X	X	X		Renew
	Cost structure											-
Offering	Products and services	X					X	X	X		X	Renew
	Value proposition											-
	Revenue model											-
Market aspects	Customer segments											-
	Key actors and relationships				X		X	X			X	Refine
	Channels											-
	Decision (Scope)	S3	S2	S2	S1	S2						

Table A1: Example of an assessment table in Case 3 (Windows manufacturer B). (Continued)

Table A1

Legend

Scope of change (focused or integrated)

E1, E2, etc.: BM change events that occurred during cycle
 S1: Change did not affect any other sub-component (Focused)
 S2: Change in one sub-component led to, or was combined with, change in other sub-components in the same dimension (Focused)
 S3: Change led to change in several sub-components in at least one other business model dimension (Integrated)
 S4: Change led to change of most sub-components across all three business model dimensions (Integrated)

Degree of change (refinement or renewal)

D1: Change affected the standard repeated processes in the organization (prerequisite for change to be considered BMR)
 D2: Change involved improving existing functions in the business model sub-components or dimensions (Refinement)
 D3: Change involved adding or removing functions in the business model sub-components or dimensions (Renewal if combined with D4 and/or D5)
 D4: A considerable amount of resources (financial, tangible, human) was dedicated to the change (Renewal if combined with D3)
 D5: The change was communicated to external audiences (Renewal if combined with D3)

Table A1: Example of an assessment table in Case 3 (Windows manufacturer B). (Continued)