Application of the Sustainable Business Model Framework: Evidence from a Multinational Company.

By Åsa Devine¹, Michaela Sandell²

Abstract

All organizations are unique, not least considering when and how certain sustainable business practices are initiated and managed. Organizations therefore need an instrument that is possible to adapt to allow for monitoring sustainability progress. In the Sustainable Business Model (SBM) framework, developed by the authors, the sustainability activities of stakeholders connected to the organization are coded into a matrix formed of sustainability archetypes and value dimensions. The purpose of this paper is to describe how the SBM framework can be adapted and used for depicting sustainability activities and values annually and over time. In the example used to demonstrate the application of the framework an extra archetype had to be added, which resulted in a modification of the model. By analyzing the adapted and applied matrix, not only which archetypes have the most activity can be seen, but also which stakeholders are involved in initiating, delivering, and capturing of value. The contribution of the paper is to show the applicability and versatility of the developed SBM framework when used in practice.

Keywords: Sustainable Business Model (SBM) Framework, Sustainability Activities, Sustainability Archetypes, Value Initiation, Value Delivery, Value Capture, Practical application.

1. Introduction

No organization is identical to another organization and the continual striving to keep up with internal and external demand for change vary from organization to organization. One of the more, if not the most, strong demands for change placed upon organizations today has to do with transitions towards sustainability. Such transition is necessary, urgent, and applies to all, but even with the best intentions among organizational leaders and decision makers it might be difficult to prioritize sustainability actions as one solution does not fit all, particularly not over time. With insight into the embeddedness of actual sustainability involvement compared to e.g. expressed sustainability goals, adequate strategic decisions can be made in order to improve alignment and progress. A strategic and holistic approach to sustainability, from an organizational point of view, is not a given, but what seems clear is that the support offered should fit the criteria of being adaptable to each particular organizational context, and flexible to manage change over time. Hence, what appears to be needed is a practical and easy-to-use instrument (Comin et al. 2020; Lüdeke-Freud & Dembek, 2017; Nosratabadi et al. 2019) to help organizations monitor their sustainability involvement.

The sustainable business model (SBM) framework presented and applied in this paper has been developed by the authors as an alternative to existing sustainability business models. The model consists of two axes for simplicity and the focus is broad but can be adapted to the organization. The purpose of this paper is to describe how the SBM framework can be adapted and used for depicting sustainability activities and values annually and over time. The ambition is that by demonstrating the applicability and usefulness of the SBM framework, organizational leaders will be intrigued and ultimately inspired to apply the framework in order to make improvements in the domain of sustainability. The paper includes an overview of the sustainable business model (SBM) framework, followed by a method chapter. Since the contribution of this research is of a practical nature, emphasis is placed on demonstrating the applicability and use which is found in the empirical and analysis chapter. The paper ends with a conclusion and step-by-step explication of how to use the SBM framework in practice.

2. The sustainable business model (SBM) framework

The SBM framework presented in this paper is based on research focused on SBM archetypes and value dimensions. These two strands of research are brought together into a matrix where one axis of the matrix consists of the SBM archetypes, and the other consists of value dimensions and stakeholders. For the basic SBM framework template, see *Table 5* in Appendix 1. Focusing on the SBM archetype axis, the work by Bocken et al. (2014), Ritala et al. (2018), and Lüdeke-Freud et al. (2018) have been particularly instrumental. Consolidation of existing research revealed a total of ten relevant sustainability archetypes (Devine & Sandell, 2023), where an archetype can be thought of as a general sustainability approach which helps to deliver sustainability (Short et al., 2014). Each archetype can further be discussed in terms of sustainability activities, i.e. things organizations do. For a deeper understanding of the archetypes and activities, see Devine and Sandell (2023). Each of the ten archetypes was grouped together with one of the three pillars of sustainability, i.e. the triple bottom line (Belz and Peattie, 2012), as follow:

2.1. Environmental sustainability archetypes

The environmental pillar of sustainability incorporates the following three archetypes:

- Archetype 1: Maximization of material and energy efficiency
- Archetype 2: Closing resource loops
- Archetype 3: Substitute with renewable and natural processes

2.2. Social sustainability archetypes

Social sustainability includes five different archetypes:

- Archetype 4: Delivery of functionality rather than ownership
- Archetype 5: Adoption of a stewardship role
- Archetype 6: Encouragement of sufficiency
- Archetype 7: Giving

2.3 Economic sustainability archetypes

- In the economic sustainability pillar there are three archetypes:
- Archetype 8: Repurpose for society/environment
- Archetype 9: Inclusive value creation
- Archetype 10: Develop sustainable scale-up solutions

Directing attention to the second axis of the SBM framework means focusing on the value dimensions and the stakeholders connected to the different dimensions. The pertinence of including value dimension in the SBM framework rests with the understanding that any business model research is incomplete without mentioning value as value encompass the core of any business model (Richardson, 2008). Research conducted by Richardson (2008), Teece (2010), Evans et al. (2017), Teece and Linden (2017), and Nosratabadi et al. (2019) encompass the frame of reference for how value is perceived in this study. The three value dimensions incorporated into the SBM framework are: value creation initiation, value delivery management and value capture. Value creation initiation relates to one or several stakeholders allowing value to potentially be created through initiation (Richardson, 2008) of a sustainable activity. Value delivery management entails that stakeholders are active in delivering (Richardson, 2008) the value creating sustainability activity that has been initiated. Value capture means that value is gained (Evans et al., 2017) by one or several relevant stakeholders. From this description it should be clear that the three value dimensions together form a logical sequence of events starting with initiation, followed by delivery, and ending with value being captured. This reasoning assumes that value cannot be captured if it is not first initiated and then delivered. Various sustainability activities performed by stakeholder types together, or by themselves, initiate, deliver, and capture value. The view taken on stakeholders finds inspiration in research by Payne et al., (2005) and include:

- the organization
- customers
- suppliers
- external organizations including agencies, businesses and governmental bodies
- society at large which includes marginalized groups, local organizations and communities, the natural environment including e.g. animals, plants, water and air.

3. Method

To demonstrate the applicability of the SBM framework, empirical data were gathered from three annual sustainability reports originating from the Inter IKEA Group¹. Inter IKEA Group was selected as an interesting organization due to its global presence, expressed commitment to sustainability, and extent of its sustainability approach spanning each of the three sustainability pillars. Company authored communication regarding sustainability could of be seen as greenwashing and should be treated with this in mind. In the context of this paper, it is not a major issue since the focus is on showing how the SBM framework can be used by companies in their sustainability efforts. Hopefully this would lead to more sustainability activities, but of course the companies could use it to greenwash.

¹ The following sustainability and climate reports were sourced: FY19: IKEA Sustainability Report FY19; FY20: IKEA Sustainability Report FY20; FY21a: IKEA Sustainability Report FY21; and FY21b: IKEA Climate Report FY21, Becoming Climate Positive. For the fiscal years 2019 and 2020 the sustainability reports incorporated the climate reports, but for fiscal year 2021 the climate report was a separate document from the sustainability report.

Initially each of the annual sustainability reports were read carefully by the researchers searching for expressions of sustainability actions or activities undertaken by the organization or connected stakeholders. Statements expressing goals, future ambitions, past events, and general statements of commitment were disregarded. The collected raw empirical data in terms of text fragments, i.e. sentences, where placed in a database and thereafter categorized according to the archetypes, stakeholders and value dimensions included in the SBM framework. In total 912 such text fragments, also referred to as measurement points, were gathered. During the process of coding the data within the scope of the SBM framework a problem revealed itself in that some of the empirical data gathered were not possible to fit within the existing framework. This can be related to what Atkinson (1992) explain in terms of how rigidity of existing models may result in an incapacity to encompass retrieved empirical data was added to the model. This added archetype was referred to as *Archetype 11: Advocacy* and has its theoretical anchoring in the discussions by Uneman and O'Dwyer (2006) and Brown and Moore (2001).

Further, a measurement point is a sustainability activity that is initiated and potentially delivered in terms of being managed fully or partially. A sustainability activity can also be initiated, but not for the time being managed and consequently not delivered. Another scenario is when a sustainability activity is initiated by another stakeholder and the organization is later taking part in delivering value. It is therefore possible that the mapping of activities reveal that an activity is delivered and managed without being initiated by the example organization. If a sustainability activity is initiated and delivered, one or more stakeholder types receives value in terms of value capture from the activity being acted upon. Value cannot be captured unless the sustainability activity is initiated and at least partly delivered. Important to keep in mind is that sustainability activities can be initiated and delivery of sustainability activities. The same goes for value capture in that multiple stakeholders can capture value from a particular sustainability activity delivered, i.e. co-capture of value. All these different scenarios became apparent during the process of coding the empirical data.

4. Analysis

To allow for demonstrating the practical value of the SBM framework in relation to annual assessments as well as changes over time, the empirical data were compiled into three main tables. The first two tables (*Table 2* and *Table 3*) visualize the embeddedness of sustainability activities during the two years of 2021^2 and 2019^3 . These tables also depict value initiation, delivery, and capture among different stakeholder types. Due to space restrictions only the material from the 2021 dataset is elaborately presented in text, but the same logic applies also to the material from 2019 found in *Table 3*. The reason for focusing first and foremost on 2021 and not 2019 is the interest in the most recent and updated

² IKEA Sustainability Report FY21a: IKEA Sustainability Report FY21; and FY21b: IKEA Climate Report FY21, Becoming Climate Positive

³ IKEA Sustainability Report FY19

data. However, once discussing the application of the SBM framework using the 2021 data a retrospect comparison between the application from 2021 and 2019 allows for detecting changes and development of sustainability foci of the organization over time. *Table 4* visualizes the organization's overall sustainability evolvement for the three-year period, i.e. the fiscal years of 2019, 2020, 2021. Given the ambition of describing a practically useful and easily comprehensible framework, the empirical data were color coded based on the summarized number of measurement points for a particular activity, value dimension and stakeholder type, see *Table 1*.

Table 1: The color-coding schedule depicts the total number of sustainability activities mapped against archetypes, value dimensions and stakeholder types. The numbers equal the summarized quantity of measurement points.

1 2	1
Color-coding	# of measurement points
	71-
	61-70
	51-60
	41-50
	31-40
	21-30
	11-20
	1-10
	0

The year 2021 had in total 251 measurement points, where each measurement point equals a sustainability activity mapped within one of the environmental, social, or economic archetypes. As seen in Table 2, the three economic archetypes accounted for a total of 23 measurement points, which was considerably lower than the 103 measurement points accrued by the three environmental archetypes. The social sustainability category had, with its five archetypes, the highest number of activities counting to 125 measurement points. Further, for the three archetypes belonging to the economic sustainability pillar it is only Archetype 9: Inclusive value creation that appears to have activities more than occasionally declared by the organization during 2021. For the three environmental archetypes, i.e. Archetype 1: Maximization of material and energy efficiency; Archetype 2: Closing resource loops; and Archetype 3: Substitute with renewable and natural processes, the situation is vastly different in that all three archetypes involve activities frequently mentioned by the organization. Of the five social sustainability archetypes three had fewer activities cited during 2021, while the organization were heavily involved in Archetype 5: Adoption of a stewardship role; and Archetype 11: Advocacy. Archetype 7: Giving received no attention in terms of sustainability activities initiated or delivered, and Archetype 4: Delivery of functionality rather than ownership received minimal attention. This means that what the organization does in terms of initiating and being involved in sustainability activities, differ to a large degree across the eleven archetypes.

Table 2 also allows for revealing who is involved in initiating value, delivering value as well as capturing the value in relation to each of the sustainability archetypes. Across all archetypes it is the example organization that is the initiator of the absolute majority of all sustainability activities. However, there are occurrences, specifically related to Archetype 5: Adoption of a stewardship role, where the organization is initiating sustainability activities together with other external organizations, and even occasions where an external organization is the sole initiator. In terms of delivery of value this is most often managed by the organization itself (156), but also quite often together with external organizations (78). Thus, co-delivery appears in about one-third of all delivery of sustainability activities the organization is involved in managing. The stakeholders capturing value most frequently in relation to sustainability activities delivered during the fiscal year of 2021 are society at large followed by the customers. The organization itself capture roughly value at the same rate as its suppliers. One stakeholder type, i.e. external organizations, appears to capture no immediately identifiable value.

Table 2: Sustainability activities for the fiscal year of 2021 mapped against the three value dimensions (i.e. value creation initiation, value delivery managed, and value captured) and specified down to stakeholder types.

	Environmental (103 measureme	nt points)	Social (125	measurement point	ts)	Economic (23 measurement points)				
SBM archetypes:	Archet. 1	Archet. 2	Archet. 3	Archet. 4	Archet. 5	Archet. 6	Archet. 7	Archet. 11	Archet. 8	Archet. 9	Archet. 10
# measuring points:	43	26	34	1	85	9	0	30	2	16	5
Value creation initiation											
by the organization	39 (of which 1")	22	34	1	65 (of which 7")	8		11 (of which 4")	2	10 (of which 1")	3 (of which 1")
by the customer	-	-	-			-			-		
by suppliers	-	-									
by external organization	2				17			14		2	1
by the society at large	-			-			-				
Value delivery managed											
by the organization	40 (of which 8")	22 (of which 6") 31 (of which 1")	1	82 (of which 28")	8 (of which 2")		28 (of which 22")	2 (of which 1")	16 (of which 6")	5 (of which 4")
by the customer	-	1	2	-	3		-	1	-		
by suppliers	2	1	3		5				1		
by external organization	8	6	1	-	28	2		22		6	
by the society at large	-	-			3			1			
Value captured											
by the organization	3	1	6		10			4		3	
by the customer	13	4	7		22	7				2	1
by suppliers	4	1	3		13			4	1	1	1
by external organization	-	-	-	-	-			-		-	
by the society at large	10	13	16		21	3		13	1	10	3

^{*} includes all external organizations, agencies and businesses e.g. NGOs, and government bodies. ^{**} the organization together with external organizations.

A brief comparison between 2021 (*Table 2*) and 2019 (*Table 3*) reveals a couple of interesting findings. First, in 2019 there were a balance between the measurement points found connected to the archetypes within the environmental pillar and social pillar. However, in 2021 it appears as if the organization has become more dedicated to the actions connected to the archetypes found within the social pillar compared to the environmental. In particular activities within *Archetype 5: Adoption of a stewardship role* had a comparable strong presence in 2021. Second, activities in the economic pillar of sustainability with its three archetypes receives the least attention from the exemplar organization for both 2021 and 2019. Third, the order of the archetypes, judging from number of measurement points, is almost completely consistent between the two years the exception being the two economic archetypes *Archetype 8: Repurpose for society/environment* and *Archetype 10: Inclusive value creation*. Fourth, what the two years have in common is the lack of focus on *Archetype 7: Giving* as well as who is involved in the value initiation, delivery, and capture. From the comparison of the SBM framework application from 2021 and 2019 it appears that there exist differences between the two years but also similarities.

Table 3: Sustainability activities for the fiscal year of 2019 mapped against the three value dimensions (i.e. value creation initiation, value delivery managed, and value captured) and specified down to stakeholder types.

	Environmental (1	60 measurement	points)	Social (16	0 measurement po	ints)	Economic (52 measurement points)				
SBM archetypes:	Archet. 1	Archet. 2	Archet. 3	Archet. 4	Archet. 5	Archet. 6	Archet. 7	Archet. 11	Archet. 8	Archet. 9	Archet. 10
# measuring points:	65	39	56	7	84	21	0	48	12	31	9
Value creation initiation							_				
by the organization	58 (of which 1")	35 (of which 1")	48 (of which 1")	7	61 (of which 1")	17		25 (of which 5"")	10	19 (of which 1")	6
by the customer	-	-		-					-		-
by suppliers	-			-					-		
by external organization	3	1	1		5	3		15		5	2
by the society at large	-								-		
Value delivery managed											
by the organization	59 (of which 10")	34 (of which 4")	52 (of which 9")	6	73 (of which 26")	19 (of which 5")		46 (of which 25")	10 (of which 8")	30 (of which 16")	8 (of which 6")
by the customer	1	3		1		3		1	-	2	
by suppliers	6	1	1		4	1		3	-	2	-
by external organization	11	4	10		26	5		25	9	16	
by the society at large	-	2			3		-	1	-	3	-
Value captured											
by the organization	7	5	4		16	2		3	-	10	-
by the customer	9	3	2	4	18	8		3		1	
by suppliers	11	1	3		16	-		9	1	7	-
by external organization	-			-	1			1		3	
by the society at large	22	11	27	1	36	7		25	8	16	6

* includes all external organizations, agencies and businesses e.g. NGOs, and government bodies. ** the organization together with external organizations.

During the three-year period ranging from 2019 to 2021 there were a total of 912 measurement points. 372 of these measurement points originate from the fiscal year 2019, 289 from 2020, and 251 from 2021. Taken together, 352 of the total measurement points for the three-year period are mapped to the three environmental archetypes, 443 measurement points are mapped to the five social archetypes, and 117 measurement points are mapped to the three economic archetypes. Table 4 shows the development across the three-year period for each archetype, value dimension, and stakeholder. Table 4 depicts that the example organization increased its sustainability activities regarding value creation initiation for only three of the eleven archetypes. Two of the archetypes, i.e. Archetype 1: Maximization of material and energy efficiency and Archetype 3: Substitute with renewable and natural processes, where there was an increase in initiated activities are part of the environmental pillar, while the third, i.e. Archetype 6: Encouragement of sufficiency, is part of the social pillar. Over the three years there appears to be an increased initiation of value creation coming from external organizations, particularly related to Archetype 5: Adoption of a stewardship role and Archetype 11: Advocacy which both belong to the social pillar. Focusing on management of value delivery, the example organization increased their involvement for Archetype 1: Maximization of material and energy efficiency, Archetype 5: Adoption of a stewardship role and somewhat for Archetype 6: Encouragement of sufficiency. The same can be seen among external organization which also increased their value delivery involvement for Archetype 1: Maximization of material and energy efficiency and Archetype 5: Adoption of a stewardship role. Regarding value capture, the customers, suppliers, and society at large appear to increase the value captured over the three years: the customers increase value captured related to Archetype 1: Maximization of material and energy efficiency, the suppliers increase value captured related to Archetype 5: Adoption of a stewardship role, and society at large get an increase in value capture with regards to Archetype 2: Closing resource loops and Archetype 11: Advocacy. When assessing the development of the three economic archetypes there is lack of positive trend indications, instead economic sustainability appears to receive decreasing or unchanged attention for all considered stakeholders across the three value dimensions.

Table 4 also send a signal that some of the sustainability activities are not continuous activities (see the black dots in *Table 4*). Instead, there are indications that activities are popping up here and there across the three-year period and within all the archetypes. This may be an indication of lack of commitment by the organization, or externally imposed requirements. It is particularly important to keep in mind that the second year (i.e. 2020) of the considered three-year period Covid-19 was at its peak, which likely explains some of the interruptions. In connection to Covid-19 it is interesting that for *Archetype 7: Giving*, year 2020 was the only year when there were any activities at all connected to giving. Overall, from the *Table 4* it appears that the more embedded archetypes across the three years are the three environmental archetypes (*Archetype 1: Maximization of material and energy efficiency; Archetype 2: Closing resource loops*; and *Archetype 3: Substitute with renewable and natural processes*), two social archetypes (*Archetype 5: Adoption of a stewardship role* and *Archetype 11: Advocacy*) and one of the economic archetypes (*Archetype 9: Inclusive value creation*).

Table 4: Development of sustainability activities for period 2019-2021 mapped against the three value dimensions (i.e. value creation initiation, value delivery managed, and value captured) and specified down to stakeholder types.

	Environme	ntal (352 me	Economic (117 measurement points)								
SBM archetypes:	Archet. 1	Archet. 2	Archet. 3	Archet. 4	Archet. 5	Archet. 6	Archet. 7	Archet. 11	Archet. 8	Archet. 9	Archet. 10
# measuring points:	129	93	130	10	272	32	16	113	20	75	22
Value creation initiation								_			
by the organization	\sim		\sim	\sim	\sim	\sim	• •				
by the customer				·			·· ·				
by suppliers	· ·	·· •			·· •	· ·				· •	
by external organization	• - •	• .	• • •			• .		\sim			• • • •
by the society at large					•		•				
Value delivery managed						-					
by the organization	\sim			\sim			•· •				<u> </u>
by the customer	• •	_	÷	• •		• •		\rightarrow		• •	
by suppliers		•	••	· · ·	\sim	• •	·· ·				
by external organization	\sim		• • • •		/~/	* • • •		\rightarrow	• .		•
by the society at large		•				► -	•	· • · •		• •	
Value captured											
by the organization		+	<u>_</u> →	- •		• •		· • • •			
by the customer	\sim		••	• •		• • • •		• • ·			• - •
by suppliers	• • •		••		~~	· · ·		\rightarrow			
by external organization					• .			• •		• -	
by the society at large		\sim		• •					• • •		• •

* includes all external organizations, agencies and businesses e.g. NGOs, and government bodies.

• indicates that data is available for a particular year(s), but data is missing for at least one of the three years.

- indicates that there is no data and consequently no activities.

5. Conclusion and step-by-step practical approach

The purpose of this paper is met through the description of how the SBM framework can be adapted and used for depicting sustainability activities and values annually and over time. The SBM framework is comprehensive and incorporates the main approaches of SBMs as identified by Nosratabadi et al. (2019) designing sustainable value creation, designing sustainable value delivering, and generating sustainable partnership networks. Comin et al. (2020) identified difficulties of operationalization as an obstacle for companies to implement the earlier SBMs. The SBM framework overcomes this obstacle through the thorough operationalization of archetypes and activities. For a more comprehensive discussion of the SBM field, as well as details of the development of the SMB framework, see Devine and Sandell (2023).

The practical appeal of the SBM framework lies in that it can help decipher degree of activity regarding certain sustainability activities and archetypes of the organization in one moment of time and over a period of time. The practical approach described below can support detection of areas where the organization is demonstrating persistence and excellence, and other areas where there the organization is underperforming and fail to meet expectations. Having identified embeddedness, and lack of embeddedness of sustainability conduct allow for change and realignment and ultimately performance improvements. Hence, using the SBM framework can support organizational leadership in assessing the directions of the development and help analyze to what extent they reach long-term and annual sustainability goals. If the organization is drifting from intended strategic directions the SBM framework can assist in pinpointing areas of particular interest for further investigation. Using the SBM framework over a period of years will give the organizational leadership insight needed to separate between temporary fluctuations as compared to overarching movements or trends within the domain of sustainability activities of organizations. With sustainability higher than ever on the global agenda the future of practical support, such as the SBM framework, allowing for monitoring the sustainability progress of organizations appears more promising than ever.

In the described example coding the empirical data exposed a need for extending the SBM framework to encompass 11 archetypes instead of the original 10 archetypes deduced from existing research. Archetype 11: Advocacy was added given how much this particular organization focuses on various types of activism and uses its power to make a difference through communication with e.g. foreign governments. Due to the flexibility of the SBM framework the overall scope of the archetypes can also be reduced. Archetype 7: Giving could likely have been removed from the 2019 and 2021 annual mappings, but when assessing this archetype over time it appeared to be relevant for 2020. The SBM framework can also, in addition to being modified to fit the organizational context in relation to the archetypes, be adjusted in terms of relevant stakeholder types. That means that given the nature of the organization one or more stakeholder types may be added or removed from the framework. Another opportunity found within the adaptability of the SBM framework is to divide an archetype where the organization is particularly active into several more specific archetypes. In the example organization of this study, it could be relevant to divide Archetype 5: Adoption of a stewardship role into more specific archetypes based on what kind of stewardship it is that is being addressed. Such archetype specification would allow for shedding more nuanced light on stewardship. In sum, the SBM framework should, in order to be of practical value, be modified for each organizational context due to heterogeneity between organizations but also within one single organization over time.

The contribution of this paper is practical in that it demonstrates the applicability and versatility of the SBM framework to fit any organization once modified. To clearly show the applicability of the SBM framework and ease the practical use, a step-by-step explanation of how to adapt and use the SBM framework is put forward:

1. Collect empirical data related to sustainability activities involving the organization. A starting point might be documents dealing with sustainability, such as sustainability reports. To detect current patterns of sustainability conduct and embeddedness it is important that only sustainability activities that are initiated and/or delivered are taken into

consideration, e.g. "We are phasing out fossil plastic from our product range". Expressions of ambitions and future goals should not be perceived relevant.

2. Add the data into a database where each of the retrieved sustainability activities are categorized in accordance with the archetypes included in the SBM framework. If no relevant archetype is available, it is possible to add an archetype to the framework. The example statement above fits *Archetype 3: Substitute with renewable and natural processes.* What archetypes to include may be guided by the long-term strategic goals and ambitions of the organization.

3. Once the archetype is decided, map the stakeholder involvement to each of the three value dimensions, i.e. value initiation, creation or capture. If the existing SBM framework do not include relevant stakeholder types adjust the list of stakeholders to fit the organization. For the example statement it is the organization that initiate and manage the phasing out process towards more natural processes. It is the society at large including all members of society and the natural environment that capture value from this conduct.

4. When the database consists of a complete list of sustainability activities mapped towards archetypes and value dimensions the findings can be summarized into the SBM framework, see *Table 5*. Color coding is recommended in order to highlight archetypes with more or less activity and main stakeholder involvement across the three value dimensions.

5. Once the SBM framework is adjusted to the organization it may appear obvious that there is lack of activity related to some archetypes. This may result in a decision to remove one or several archetypes. Once again, what archetypes to include or remove may be guided by long terms goals and ambitions, meaning that if the organization has e.g. *Stewardship* as an ambition it would not make sense to remove *Archetype 5* even if there is lack of activity for one year.

6. When the SBM framework is adapted to the organization it is time to look over the sources for the collected data. It might be that there is an idea that an archetype that shows few activities is not due to there being few activities within the archetype but rather that the material is available in an alternative source, such as different documentation or interviews, internally or with other stakeholders.

7. In order to utilize the insight gained for making strategic improvements it would be wise to bring the results up at meetings dealing with sustainability goals as well as sustainable activities in daily operations. With multiple datasets, comparisons can be made to reveal development and embeddedness, see e.g. *Table 4*. The development over time can be visualized using simple graphics, such as arrows, dots and dashes, which can assist convenient overview over a large data set.

8. Repeat step 1-7 on a regular basis, e.g. once a year. Look over the matrix in relation to the goals of the organization and the material gathered. Look over relevant sources of information. Collate the information into the matrix and disseminate the information to relevant parties.

By adapting the Sustainable Business Model framework to the organization's goals and situation one should have a bespoke instrument which could be used to evaluate and monitor the alignment and progress of the organization's sustainability efforts.

Acknowledgements: The authors are grateful to Dan Halvarsson at the School of Business and Economics at Linnaeus University, Sweden for taking the time and effort of reading and discussing the manuscript prior to submission. The comments received from Halvarsson helped improve the quality of the paper overall.

We would also like to acknowledge the contribution of the reviewer who gave us helpful advice for improving the article.

References

- Atkinson, P. A. (1992). The ethnography of a medical setting: Reading, writing and rhetoric. *Qualitative Health Research*, 2, 451-474. DOI: 10.1177/104973239200200406
- Baldassarre, B., Calabretta, G., Bocken, N.M.P., & Jaskiewicz, T. (2017). Bridging sustainable business model innovation and user-driven innovation: A process for sustainable value proposition design. *Journal* of Cleaner Production, 147, 175-186. DOI: 10.1016/j.jclepro.2017.01.081
- Bocken, N.M.P., Short, S.W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, 65, 42-56. DOI: 10.1016/j.jclepro.2013.11.039
- Belz, F.K. and Peattie, K. (2012). Sustainability Marketing (2nd ed.). John Wiley and Sons Ltd.
- Brown, L.D., & Moore, M.H (2001). Accountability, Strategy, and International Nongovernmental Organizations. Nonprofit and Voluntary Sector Quarterly, 30(3), 569-587. DOI: 10.1177/0899764001303012
- Comin, L.C., Aguiar, C.C., Sehnem, S., Yusliza, M.-Y., Cazella, C.F., & Julkovsko, D.J. (2020). Sustainable business models: a literature review. *Benchmarking: An International Journal*, 27(7), 2028-2047. DOI
- Dentchev, N., Rauter, R., Jóhannsdóttir, L., Snihur, Y., Rosano, M., Baumgartner, R., Nyberg, T., Tang, X., van Hoof, B., & Jonker, J. (2018). Embracing the variety of sustainable business models: A prolific field of research and a future research agenda, *Journal of Cleaner Production*, 194, 695-703. DOI: 10.1016/j.jclepro.2018.05.156
- Devine, Å, & Sandell, M. (2023). A Systematic Sustainable Business Model (SBM) Approach- A Flexible Organization Tool. In A. Lastname & X. Lastname (Eds.), *Name of book*. Palgrave, *Forthcoming*
- Evans, S., Vladimirova, D., Holgado, M., Van Fossen, K., Yang, M., Silva, E., & Barlow, C. (2017). Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models. Business Strategy and the Emironment, 26, 597-608. DOI: 10.1002/bse.1939
- FY19:
 IKEA
 Sustainability
 Report
 FY19,

 https://preview.thenewsmarket.com/Previews/IKEA/DocumentAssets/557393.pdf,
 accessed

 20200403
 20200403
- FY20: IKEA Sustainability Report FY20, https://www.ikea.com/se/sv/files/pdf/c3/e2/c3e2b54b/ikea_sustainability_report_fy20.pdf, accessed 20211020
- FY21a: IKEA Sustainability Report FY21, <u>https://gbl-sc9u2-prd-cdn.azureedge.net/-</u>/media/aboutikea/newsroom/publications/documents/ikea-sustainability-reportfy21.pdf?rev=d72d435b0c5d416f8dfcb2ec4fcb007a&hash=5F874B8EDF3CB1192824D8EB02A <u>C0CBE</u>, accessed 20220124
- FY21b: IKEA Climate Report FY21, Becoming Climate Positive, <u>https://gbl-sc9u2-prd-cdn.azureedge.net/-/media/aboutikea/newsroom/publications/documents/ikea-climate-report-fy21.pdf?rev=19eb2275ea854676b93c17beb9312c99&hash=4117206E69C8014895FF4CDF7E50 47BD, accessed 20220124</u>
- Lüdeke-Freud, F., Carroux, S., Joyce, A., & Massa, L. (2018). The sustainable business model pattern taxonomy- 45 patterns to support sustainability-oriented business model innovation. *Sustainable Production and Consumption*, 15, 145-162. DOI: 10.1016/j.spc.2018.06.004
- Lüdeke-Freud, F., & Dembek, K. (2017). Sustainable business model research and practice: Emerging field or passing fancy? *Journal of Cleaner Production*, 168, 1668-1678. DOI: 10.1016/j.jclepro.2017.08.093
- Nosratabadi, S., Mosavi, A., Shamshirband, S., Zavadskas, E.K., Rakotonirainy, A., & Chau K.W. (2019). Sustainable Business Models: A Review. *Sustainability*, 11(1663), 1-30. DOI: 10.3390/su11061663

- Payne, A., Ballantyne, D., & Christopher, M. (2005). A stakeholder approach to relationship marketing strategy: The development and use of the "six markets" model. *European Journal of Marketing*, 39(7/8), 855-871. DOI: 10.1108/03090560510601806
- Richardson, J. (2008). The Business Model: an integrative framework for strategy execution. Strategic Change, 17, 133-144. DOI: 10.1002/jsc.821
- Ritala, P., Huotari, P., Bocken, N, Albareda, L., & Puumalainen, K. (2018). Sustainable business model adoption among S&P 500 firms: A longitudinal content analysis study. *Journal of Cleaner Production*, 170, 216-226. DOI: 10.1016/j.jclepro.2017.09.159
- Short, S.W., Bocken, N.M.P., Barlow, C.Y., & Chertow, M.R. (2014). From Refining Sugar to Growing Tomatoes- Industrial Ecology and Business Model Evolution. *Journal of Industrial Ecology*, 18(5), 603-618. DOI: 10.1111/jiec.12171
- Teece, D. (2010). Business Models, Business Strategy and Innovation. Long Range Planning, 43, 172-194. DOI: 10.1016/j.lrp.2009.07.003
- Teece, D., & Linden, G. (2017). Business models, value capture, and the digital enterprise. *Journal of Organizational Design*, 6(8), 1-14. DOI: 10.1186/s41469-017-0018-x
- Unerman, J., & O'Dwyer, B. (2006). Theorising accountability for NGO advocacy. Accounting, Auditing & Accountability Journal, 19(3), 349-376. DOI: 10.1108/09513570610670334

Appendix 1

Table 5: The SBM	framewoi	ramework lemplale.										
	Environmen	Environmental					Economic					
SBM archetypes:	Archet. 1	Archet. 2	Archet. 3	Archet. 4	Archet. 5	Archet. 6	Archet. 7	Archet. 8	Archet. 9	Archet. 10		
# measuring points:												
Value creation initiation												
by the company												
by the customer												
by suppliers												
by external organization ¹												
by the society at large												
Value delivery managed												
by the company												
by the customer												
by suppliers												
by external organization ¹												
by the society at large												
Value captured												
by the company												
by the customer												
by suppliers												
by external organization ¹												
by the society at large												

Table 5: The SBM framework template.

¹ includes all external organizations, agencies and businesses e.g. NGOs, and government bodies.