

# UNDERSTANDING MANAGERIAL ACTION IN BUSINESS MODEL TRANSFORMATION OF SMALL AND MEDIUM-SIZED ENTERPRISES

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## Abstract

Small and Medium-Sized Enterprises (SMEs) typically adapt their business model opportunistically, with new value propositions, adding partnerships or improving their cost structure. Business model transformation has been proven to drive SME innovation and success, however, the role of SME managers in facilitating such transformation remains unclear. While peer-to-peer sharing has received much attention in public debate and academic research, sharing among firms is largely neglected in both. Looking at current opportunities for SMEs in business-to-business (B2B) sharing, this research aims to identify recurring patterns in managerial activity along a business model transformation for which a cross-case analysis with Swiss SMEs was used, following several cycles of action research with semi-structured, deductively coded interviews.

The research identified three phases of management action: managers focus on identifying the business opportunity, adjust processes and technical infrastructure to enable their organization to seize the opportunity, and involving the entire organization to ensure a lasting change in their business model. While the impact of B2B sharing on each SME may be considered limited, this research offers original insights into how managers drive business model transformation in SMEs. It illustrates a novel process in three distinct phases while identifying dedicated managerial action for each phase.

**Keywords:** Small and Medium-Sized Enterprises, Business Model Transformation, Sharing Economy, Action Research, Strategic Management

## 1. INTRODUCTION

Small and Medium-Sized Enterprises (SME) between 10 and 250 employees are at the heart of advanced economies, contributing the majority of economic output, tax revenue and employment (OECD, 2019). While both

larger corporations and start-ups apply a strategic approach to business model design and transformation, the business models of SMEs evolve opportunistically (Guo et al., 2017), e.g. triggered from new product developments (Kurochkina et al., 2019), digital platforms (Xie et al., 2022) or

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internationalization (Oldenziel Scherrer et al., 2022). With digital transformation, and networked, platform-mediated business opportunities increasingly driving innovation, SMEs must evolve their business model more consciously and determinedly (Danis et al., 2010; Kumar Basu, 2015; Müller, 2019; Wrede et al., 2020). Like their larger rivals, SMEs are continuously innovating to remain competitive, transforming their business model in the process, although managerial action in SMEs remains unclear (Albats et al., 2021; Ibarra et al., 2020). With manager-owners playing a determinant role in strategy, innovation and thus business model transformation in SMEs (Latifi et al., 2021; Mandhachitara & Allapach, 2017; Manzano-García & Ayala-Calvo, 2020; Miller & Toulouse, 1986), there is a necessity to better understand the managerial actions that enable such evolution of business models, contributing to the competitiveness of the SMEs and in turn positively impacting economic growth and prosperity.

While the sharing economy between consumers (peer-to-peer) has received much attention in public debates and academic research (Eschberger, 2020; Koetsier, 2015; Price Waterhouse Coopers, 2015; Schlagwein et al., 2020), sharing between firms currently presents novel opportunities for businesses and especially SMEs to innovate at the level of their business model (Curtis, 2021; Huber et al., 2022; Kumar et al., 2018; Lestantri et al., 2022; Radjou, 2021). The Business-to-Business (B2B) sharing economy, leading to changes in the business models of SMEs, therefore offers an opportunity to study managers' actions in transforming their SME's business model – case in point: from ownership to sharing of resources. Specifically, the understanding of how a manager can take action to evolve an organization's business model, from one which has been built on ownership, to one that includes the opportunities of sharing resources and which will positively impact sustainability, reducing the SMEs footprint in using resources that are already available rather than newly procuring such resources (Daunorienė et al., 2015;

Demary, 2014; Georgi et al., 2019). More generally, if SME manager-owners are aware of the actions they can take to evolve their business model, this will allow them to seize upcoming business opportunities more proactively in emerging trends, markets, and technologies, further enhancing innovation and the competitiveness of their SMEs.

## 2. LITERATURE REVIEW

### 2.1 Business Models of Small and Medium-Sized Enterprises in B2B Sharing

Business models describe the static “*content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities*” (Amit & Zott, 2001). In market economics, such business opportunities are created by innovation, rivalry, and differentiation (Steininger et al., 2011), which is why business models are typically built on competitive advantages, with value created mostly when a business outplays their rivals (Porter, 1997). Here, sharing offers a focus on a company's resources – be they financial, human, material, or immaterial – which have long been identified as key contributors to fulfilling the company's purpose and guaranteeing the long-term viability of its business model (Barney, 1991). These resources ensure that the company can deliver products and services to the market, and if they are used wisely and nurtured within strategic objectives, they create a competitive advantage, e.g. through superior processes, products and services, early innovation, and a barrier to entry for a company's rivals (Prahalad & Hamel, 1997).

The importance of ownership of such resources varies greatly by company size, where large organizations own more of the crucial resources for conducting business (Bower, 2017). Contrarily, SMEs increasingly look for alternatives to resource ownership, through technology-enabled co-creation, co-opetition, and other forms of cooperation to create a competitive edge against their larger rivals (Choi et al., 2014; Freedy et al.,

2022). Recent discourse even calls for novel business models based on collaboration, co-creation (Siaw & Okorie, 2022; Storbacka et al., 2012) and co-opetition (Katsanakis & Kossyva, 2012; Pitelis et al., 2018), in order to achieve a competitive advantage (Cho et al., 2013; Ritala et al., 2014; Zott et al., 2011; Zott & Amit, 2007). This includes the sharing of resources, where ownership is substituted by access to resources, while at the same time infrequently used assets are used more frequently, resulting in “shared” use (Botsman & Rogers, 2010).

SMEs benefit from sharing resources with other businesses since this provides them with access to resources which they could otherwise not afford, or at a cost advantage (Soltysova & Modrak, 2020), with a growing global community of B2B sharing pioneers emerging in the post-COVID era (Radjou, 2021). Like other forms of cooperation, sharing adds to the competitiveness of SMEs (Choi et al., 2014), especially in asset-intensive industries, where SMEs are more likely to share resources, “*with fixed assets as a share of total assets positively correlated towards sharing*” (Grondys, 2019; Huber & Pooripakdee, 2022, p. 206). Asset-intensive industries such as metal parts production and processing, mining, energy, aeronautics, and defense, are characterized by an extensive asset base and require significant investments in non-digital resources to operate their core business activities (Cesca & Novaes, 2012; Johnson et al., 2011; Sarno Severi, 2014), resulting in a stronger focus on the cost and use of these assets.

Sharing resources with other businesses however does not come naturally to companies and it is rarely built into their business models (Choi et al., 2014; Daunorienė et al., 2015). From the perspective of the business owning an underutilized asset, sharing that asset could offer the potential of additional income or contribution margins from an otherwise idle resource (Choi et al., 2014; Huber & Pooripakdee, 2022; Radjou, 2021). While consumers often participate opportunistically in the sharing economy (Bratianu, 2018), SMEs must engage in more strategic

transformation, since the shift from owning to sharing resources might change causalities within their business logic, e.g. resource use, costs, revenue streams, partnerships, activities, and even customer relationships (Huber & Pooripakdee, 2022; Osterwalder & Pigneur, 2010).

## **2.2 Business Model Transformation in SMEs**

A change of business model infers a more strategic and permanent shift (Casadesus-Masanell & Ricart, 2010) where strategy formulation is namely the expression of a future state – a future version of a company’s business model – along with measures to achieve that change. Much research has been directed at business model evolution and transformation (Carlborg et al., 2021; Chesbrough, 2010), often with a focus on innovation and entrepreneurship and a broad body of research confirming the positive impact of business model innovation on firm performance (Clauss et al., 2021; Heij et al., 2014; Latifi et al., 2021; Zott & Amit, 2007). While business models have often been researched in the context of entrepreneurship and strategy (Chesbrough, 2010; Osterwalder & Pigneur, 2010; Zott & Amit, 2007), the focus on value co-creation inherent in B2B sharing merits a stronger perspective (Chen & Wang, 2019). Sharing of resources might offer new income opportunities for providing services along with the sharing transactions linked to the resources being shared (e.g. setup service for a machine being shared), or creating new and more future-oriented jobs (Bonciu, 2016; Eichhorst & Spermann, 2015). B2B sharing appears to create new business ecosystems and thus potentially creates a sustainable competitive advantage and growth for member companies (Cho et al., 2013; Soltysova & Modrak, 2020).

## **2.3 Managerial Action in the B2B Sharing Economy**

Structured approaches have been developed to identify resources within an

organization that are suitable for sharing (Steiner et al., 2022), along with a full process to initiate, execute, and evaluate a single sharing transaction in SMEs, i.e. the one-off providing and receiving of a resource between two firms (Huber et al., 2022). Managerial effort is required to permanently qualify a company for sharing activities, i.e. to consciously and determinedly use sharing as a better alternative to resource ownership (Cho et al., 2013; Curtis, 2021; Huber & Pooripakdee, 2022). This requires a transformation on the level of the company's business model (Choi et al., 2014), and triggers different managerial actions than those needed for a single sharing transaction (Huber et al., 2022; Huber & Pooripakdee, 2022). A change of business model is necessary to overcome some obstacles in the overhead effort of B2B sharing making one-off sharing transactions less attractive, e.g. the identification of resources suitable for sharing, managerial characteristics, or aspects of the external environment (Arnold et al., 2019; Esselin & Falkenberg, 2019; Niederhauser et al., 2022; Schwark, 2000).

Managers must understand how to evolve their company's business model from ownership to sharing, namely how they can drive the transformation, such as to benefit from the sharing of resources in a desired way (Huber & Pooripakdee, 2022; Muñoz & Cohen, 2017, 2018). For more SMEs to actively participate in B2B sharing, the transformational managerial effort required to shift a company's business model from ownership to sharing must be understood (Antikainen et al., 2018; Choi et al., 2014).

### 3 METHODOLOGY

#### 3.1 Action Research on Sharing Economy in SMEs

While the evolution and transformation of business models has been explored in general (Casadesus-Masanell & Ricart, 2010), this research aims to clarify the specific managerial actions needed, taking the opportunity of a business model transformation

from owning to sharing for illustration. It investigates common characteristics of that transformation, i.e., what actions managers exhibit when facilitating the transformation. With only few observable cases of B2B sharing available from practice, qualitative research is necessary in order to understand such managerial action. Accordingly, an action research design was chosen, combining activities "in action" with research by acting in the field, thus generating new knowledge or theory about these actions (Eden & Ackermann, 2018). Transformation and change happen simultaneously, researching and understanding it by applying a cyclical process in a sequence of activities and critical reflection. Later cycles refine methods, data, and interpretation of earlier cycles, creating a spiraling, iterative process where the depth of understanding on a subject matter subsequently increases (Dick, 2000). Since action research does not impose specific data collection methods and leaves open a wide range of options, often, case study research with a combination of documents, interviews, focus groups, discussions, observations, group work and performance monitoring is used (Hales et al., 2006). Data collection methods are selected with the stakeholders of the research project since they themselves constitute elements of intervention which must align with everyone's expectations so as to avoid aversion or apprehension from participants.

The participative character whereby both the researcher and data providers from the object of research contribute to the process of generating new knowledge is particularly suitable in a case where first-hand insights along the transformation process are collected. Due to its collaborative nature close to application and practice, action research has been well received by the SME community for topics focused on the transformational nature of management actions, such as innovation and knowledge management, organizational learning, or process optimization (Bhat et al., 2020; Doppio et al., 2021).

### 3.2 Data Sample and Data Collection

From March 2020 to March 2022, an industry-led research initiative investigated B2B sharing transactions with a set of ten Swiss SMEs in asset-intensive industries (Huber et al., 2022; Huber & Pooripakdee, 2022). This sample was specifically recruited from different segments in asset-intensive industries in Switzerland with a pre-conditional interest in participating in B2B sharing transactions, ensuring a managerial focus on asset use and an openness to consider sharing as an alternative to asset ownership. To identify a potential transformation in their business model, a descriptive Business Model Canvas (Osterwalder & Pigneur, 2010) was created for each participating SME from publicly available information (e.g. company website, annual reports, media reports) and then validated with a company expert during an individual digital workshop with each firm (see Figure 1 for two sample illustrations).

Business Model Canvas (BMC) was purposefully selected for a number of reasons: (i) the stringent structure forces organizations to describe their business model in a concise format of nine building blocks which allows for better comparison between cases; (ii) it purposefully focuses on a snapshot description of a company's business model at a given point in time and omits to elaborate on cause-effect relationships between the blocks, the market, competitors or strategic developments, which is particularly useful when

aiming to identify developments of a business model between two such points in time; (iii) the visual representation and simplicity facilitates the communication and discussion about a business model which proves particularly relevant to swiftly identify areas of change in comparison of a business model before and after a transformation; and (iv) the tool is widely known and used in Switzerland and its SME community meaning that the managers can quickly identify with the concept and are familiar with its terminology.

Each Business Model Canvas was revisited in a collaborative workshop with the industry partners, after sharing transactions occurred, in order to identify changes (if any) in the participating SMEs' business models. This workshop identified (a) which of the nine BMC building blocks were affected, (b) how significant that transformation was for the business model overall and (c) what specifically changed in each of the affected blocks. Along the initiative, four cases of sharing projects were implemented and documented in two cycles of action research between March and November 2021: marketing expertise, 3D measurement, delivery service, and personnel (cf. Table 1). The resources being shared, the participating SMEs and the formal details of the sharing transaction (e.g., temporary transfer of ownership vs. joint purchase) were purposefully left open to observe as many transactions as possible within the given data set and time frame. With the exception of one case, where the receiving

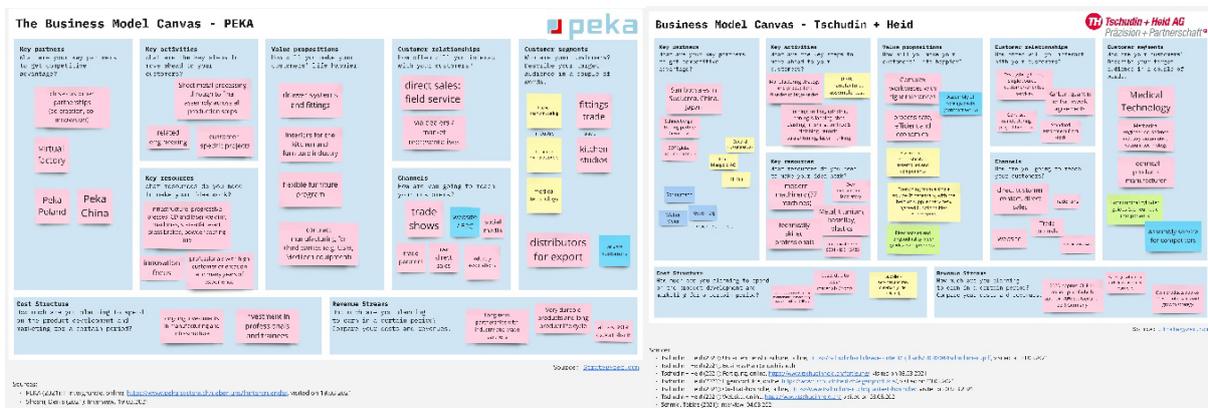


Figure 1 Sample Business Model Canvas of Peka Metall AG and Tschudin + Heid AG (own illustration)

company did not participate in the research, seven transformations from owning to sharing were recorded (two companies for each case).

All sharing transactions were accompanied by a researcher who timed and recorded all interactions between the two parties and collected data from observation, interviews, and workshops, fully embedded into the day-to-day managerial actions of participating companies as a constant and cyclical dialog between in-practice action and research. A semi-structured interview with managers at participating SME (Table 2) followed each sharing transaction to reflect the observations and to evaluate managerial action.

With the explicit permission of participants (Table 2), the interviews were audio-recorded, transcribed verbatim, and coded independently in two cycles by two researchers using a hierarchical system of 30 codes (Table 3) built on (a) the nine building blocks of Business Model Canvas (Osterwalder & Pigneur, 2010), (b) the importance of action at the strategic, tactical, or operational level, (c) the organizational level of responsibility for sharing, (d) the timing of managerial action before, during, and after the sharing transaction, as well as (e) the three domains of managerial action (systems, organization, people).

**Table 1** Sharing Transactions in the Shift from Owning to Sharing (Huber & Pooripakdee, 2022, p. 213)

Shared resource	Provider company	Receiving company	Case description
3D Measurement	Tschudin + Heid AG	PEKA Metall AG	For measuring a technical part, Tschudin + Heid share their 3D measurement device with PEKA several times per month.
Delivery service	RERO AG	Tschudin + Heid AG	Excess loading capacity on the delivery van of RERO is provided to Tschudin + Heid when required for delivery of their finished products to customers in close-by areas.
Marketing expertise	Shiptec AG	Control AG	Shiptec temporarily provides its marketing expertise to consult on the digital marketing communication of Control.
Personnel	PEKA Metall AG	(undisclosed)	In times of excess capacity, PEKA provides select members of its production workforce to a partner company where these skills and capacity are required.

**Table 2** Overview of Post-Sharing Interviews (own illustration)

Ref.	Sharing Case	Interviewed Party	Interviewee	Interview Date
M1	3D Measurement	Tschudin + Heid AG	CEO	17 June 2021
M2	3D Measurement	Peka Metall AG	Head of Production, Quality Assurance Manager	16 June 2021
E1	Expert Knowledge	Shiptec AG	Head of Shipyard	17 June 2021
E2	Expert Knowledge	Control AG	Business Development Engineer	08 July 2021
T	Transportation	RERO AG	CEO	10 November 2021
		Tschudin + Heid AG	CEO	
P	Personnel	Peka Metall AG	CEO, Head of Production, Head of HR	24 November 2021

**Table 3** Hierarchy of Codes and Frequency (own illustration)

List of codes and hierarchy	Frequency	List of codes and hierarchy	Frequency
Sharing Impact: level at which sharing impacts the SMEs business		Timing of Managerial Action: position of managerial action within the transformation process	
at Business Model Level		pre-sharing	7
channels	0	<b>identifying resources</b>	89
customer relationships	8	<b>identifying partnerships</b>	70
key activities	10	during sharing	9
revenue streams	3	post-sharing	12
<b>partnerships</b>	49	Domains of Management Actions: business aspect to which the management action is directed	
customer segments	1	Systems	
<b>cost structure</b>	61	financial resources	4
resources	8	<b>IT and infrastructure</b>	20
<b>value proposition</b>	20	<b>processes</b>	77
<b>at strategic level</b>	40	Organization	
<b>at tactical level</b>	46	<b>organizational development and change</b>	30
<b>at operational level</b>	44	roles and responsibilities	19
Position of Sharing Responsibility: hierarchical position to which the sharing responsibility is allocated		<b>communication</b>	33
<b>CEO / management</b>	48	People	
team	15	<b>management time</b>	26
<b>specific member of staff / role</b>	42	hiring and firing	5
<b>outside the company's own organization</b>	26	development and training	12

### 3.3 Semi-Structured Interview Analysis

In six interview documents, the researchers coded a total of 922 segments, with a frequency of codes in the range of 0 to 89. In order to focus on similarities across cases rather than particularities of individual cases, frequencies of less than 20 were excluded from further analysis, which reduced the number of relevant codes to 16. For the two researchers, the coding data of 16 codes within six transcribed interviews was tested for inter-coder agreement using Cohen's kappa, considering a 50% overlap in the allocation of a code to a text segment in

sufficiently coherent coding (Cohen, 1960; O'Connor & Joffe, 2020).

A balanced total of 721 coded segments were analyzed – 371 for researcher 1 and 350 for researcher 2. Segments where researchers initially did not agree were discussed between the two coding cycles, leading to a coding agreement, ranging from 0% to 70%, with an average of 32.5%. Meanwhile, inter-coder reliability reached  $k = 0.28$  (Table 4), which can be considered sufficient given the complex nature of the data and the elaborate coding system (Brennan & Prediger, 1981; O'Connor & Joffe, 2020). The codes grouped under the heading "Sharing Impact", showed

a stronger inter-coder reliability of  $k = 0.41$ , with weaker  $k$  values in the remaining coding structure due to more open definitions in the code terminology.

Coded segments with significant overlap were then extracted for the 16 codes and inductively grouped by sub-topic to deepen the qualitative understanding in search for alignment or disagreement between cases as well as additional insights provided from the interviews. The grouping of quotes and inductive comparison was conducted in verbatim German transcripts; thereafter, the interviews were automatically translated to English using DeepL. For quotation, quotes were validated with their German language original by the researcher before use.

#### 4 RESULTS AND DISCUSSION

##### 4.1 Business Model Transformation in SMEs

Out of the nine building blocks of the Business Model Canvas (BMC), three areas of change were identified via the coded interview transcripts as being relevant: value proposition, partnerships, and cost structures. During interview dialogue, the participating SMEs compared their business models in a qualitative questionnaire before and after their sharing activities, confirming that their business model specifically changed in reference to the three building blocks, emphasizing that sharing at this time still

constitutes only an auxiliary activity to their core business, one manager stating sharing to be “a new business field in this way, which is quite detached” (interview M1, line 150). From five qualitative feedback sessions, all five companies confirmed a change in partnerships, while three confirmed a cost and value proposition impact.

The shift from owning to sharing leads SMEs (1) to rethink and potentially expand their value proposition on the market, thanks to the additional resources they may access, (2) to open up their business model to new partnerships in the form of sharing cooperation, and (3) to deliver benefits on their cost structure by either monetizing an idle resource (as provider to the sharing transaction) or using a resource from a partner at a lower cost than with ownership or market-based rent. New business opportunities and hence new value propositions emerge from (a) enhanced product and service offerings which are only viable thanks to access to a resource provided through the sharing transaction and (b) sharing of underutilized resources which could potentially lead to offering these as a rent-based service to third parties in a commercial transaction. While sharing specifically impacts the participating SMEs business models in only three dedicated areas, innovation and subsequent business model transformation, potentially affecting additional areas of business, is an ongoing activity in SMEs and a key source of competitiveness (Ibarra et al., 2020; Wu et al., 2022).

**Table 4** Calculation of Inter-coder Reliability (own illustration)

		Researcher 1		
		1	0	
Researcher 2	1	a = 234	b = 254	488
	0	c = 233	0	233
		467	254	721

$$P(\text{observed}) = P_o = a / (a + b + c) = 0.32$$

$$P(\text{chance}) = P_c = 1/\text{number of codes} = 1/16 = 0.06$$

$$\text{Kappa} = (P_o - P_c) / (1 - P_c) = 0.28$$

#### 4.2 Managerial Action in Business Model Transformation of SMEs

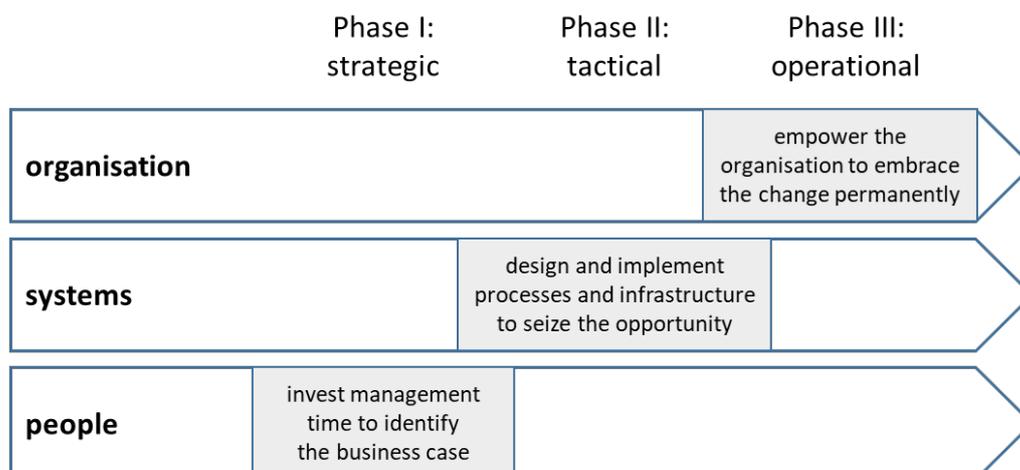
All cases illustrated the need for managerial action in the three domains of (1) systems (predominantly processes, technical infrastructure, and IT), (2) organization, and (3) people (Huber & Pooripakdee, 2022), emphasizing the need for holistic managerial action along a business model transformation in SMEs. Actions in all three domains were apparent during the entire process of planning, implementing, and evaluating sharing transactions.

When cross-checking the codes (Table 3), managers assigned a more strategic importance to the first phase, moving to tactical priority during the sharing itself and handing further sharing transactions of the same resource to an operational level thereafter, correlating with the three phases (cf. Figure 2). Consistently, managers stressed the strategic effort and management time required at the pre-sharing stage to identify the business opportunity. In SMEs, undoubtedly, this task falls to the CEO or top management where the time investment in this first phase appears to be significant, as many interviewees confirmed, e.g., *“there needs to be a commitment (...) in leading functions”* (interview E2, line 243-245). For the business opportunity to yield the desired outcomes, a due process and supporting IT infrastructure

are important, as several interviewees confirm, e.g., *“we do not enter the transports for customers as an order, the system automatically adds the transport surcharge”* (interview T, line 93-94). Even more importantly, a smooth administrative process appears to be a significant focus, e.g., *“it also has to be standardized, the process (...), it has to work on its own”* (interview T, line 237). Once the business opportunity has proven to be attractive, managers mentioned that they must engage more members of their staff for themselves to seize future opportunities, one stating *“everyone has sharing in mind in addition to buying”* (interview M2, line 236-237).

#### 5 CONCLUSION AND RECOMMENDATIONS

B2B sharing impacts participating SMEs on the level of their business model, albeit limited to selected aspects of their cost structure, new partnerships, and extended value propositions (Huber & Pooripakdee, 2022). To seize a business opportunity requires managerial involvement and tangible actions to identify the opportunities, enable implementation, and permanently transform the SME’s business model. This confirms the vital contribution of owner-managers to business model innovation in SMEs (Ibarra et al., 2020; Wrede et al., 2020), while offering



**Figure 2** Focus of Management Action Along Three Phases of Business Model Transformation (own illustration)

tangible insights into what specific managerial actions facilitate business model transformation in each phase of the evolutionary process.

### 5.1 Implications for Industry Practice

The findings highlight the potential areas of change and benefits in transforming a company's business model. Very specific yet holistic management activities are required along a three-phase transformation on a strategic, tactical, and operational level. These include identification of a business opportunity, organizational development and change, as well as investing in novel processes and organizational infrastructure to enable the implementation and establishment of the new business model permanently. Business model transformation does not occur naturally in SMEs; managers must recognize the need for their involvement in initiating and transforming their organization. Managers should pay particular attention to the activities in each phase with shifting priorities and degree of involvement: namely own time investment to identify a business opportunity in phase I, facilitating the establishment of tools and processes with dedicated staff in phase II, as well as organizational development and communication when enabling the organization at large in phase III.

Next to business models, other transformational issues are frequently researched (Frishammar & Parida, 2019; Rahman & Thelen, 2019), often with focus on the outcome (before / after) – i.e. in terms of what has changed. This research offers a novel perspective on how transformation is achieved, which in itself merits further research and application. The role and actions of managers and executives in transformations are often investigated and described as static characteristics which do not change over time (Kumar Basu, 2015; Wrede et al., 2020). This research, however, offers a novel understanding of such characteristics as evolving roles and actions along several phases of a transformation. It distinguishes

three phases along a business model transformation and offers tangible recommendations for managerial action in each of these phases, which are different in nature and importance on a strategic, tactical, and operational level. It therefore emphasizes the need for a versatile and evolving role of the SME manager throughout the process.

### 5.2 Limitations and Outlook

The research design is consciously focused and limited to the SME community of Switzerland. Data was solely collected in the SME context which aligns with the rationale for sharing being most likely to be beneficial to SMEs. Validity and application of results is therefore willingly limited to SMEs and a direct extension to larger organizations is neither justified nor desired.

B2B sharing remains a rare activity which was encouraged and supported through an action-research-based methodology in this initiative. For a stronger validation of these findings, other opportunities of business model transformation in SMEs should be studied. The empirical scope and research methodology, however, are not confined to the set of already confirmed company cases and can easily be expanded to additional companies and the business model transformation of SMEs in general.

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