



Business Models of Robotic Process Automation

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Abstract. Robotic Process Automation (RPA) is a technology for automating business processes and connecting systems by means of software robots in organizations that is gaining traction and growing out of its infancy. Thus, it is no longer just a question of what is technologically feasible, but rather how this technology can be used most profitably. However, business models for RPA remain underinvestigated in literature. Existing work is highly heterogenous, lacking structure and applicability in practice. To close this gap, we present an approach to sustainably establish RPA as a driver of digitization and automation within a company based on an iterative, holistic view of business models with the Business Model Canvas as analysis tool.

Keywords: Robotic Process Automation · RPA · Software Robots · Process Automation · Business Model · Business Model Canvas

1 Introduction

RPA offers a seemingly lightweight way to automate (parts of) processes in an organization and link systems using rules-based software robots that mimic the humans' interaction in order to relieve employees from tedious, repetitive tasks [1]. The software robots can execute the previously defined activities 24/7 if the data and activities to be used are available in a digitized, structured, and rule-based manner [2]. It leverages graphical user interfaces (GUIs) to seamlessly bridge system gaps in the absence of Application Programming Interfaces (APIs). This eliminates the need for modifying existing applications and allows for the integration of missing interfaces, effectively bridging system breaks [2]. RPA technology is industry- and application-neutral and often implemented around back-office applications, in human resources, finance and accounting, or where large developments would be too costly [3]. RPA projects are considered being implemented quickly [4].

According to a survey of more than 1.000 companies worldwide conducted in 2021, RPA was the application most frequently used for processes [5]. As RPA becomes widespread, it is no longer just about the selection of the right RPA software but rather how the technology can be used in a way that maximizes the return on investment. Studies looking into the implementation of RPA show that many RPA projects fail because of

non-technical issues rather than technical challenges [6]. Thus, it's necessary to consider a combination of strategic, organizational, and cultural challenges to achieve long-term success [7]. Part of the strategic challenges is the transformation of the business model through RPA implementation. However, there is a lack in RPA investigation within the context of business models [8, 9]. Publications on business model development using RPA exhibit significant heterogeneity, resulting in a lack of structure and limited practical applicability. This study aims to gain a holistic view of RPA business models in practice by exploring the following research question: “*How are RPA business models structured in practice?*” We propose business models of RPA specifically relevant to practitioners who want to establish RPA in the corporate environment in the long term and in the role of the user, rather for the own use of RPA or selling the service of developing use cases with RPA.

Starting point of this research is the case of a German group-internal IT service provider concerned with the development of a new line of business: RPA. The goal is to place this technology within the company but facing the gap between theory and practice regarding establishing a business model of RPA. To meet the challenges, interviews with experts are conducted to gain a holistic understanding of the interaction between a wide range of strategic, organizational, and technical factors. The Business Model Canvas (BMC) is used as a guide [10].

This paper is structured as follows: Sect. 2 provides a brief overview of the theory of business models and the BMC and looks at best practices of business models in the field of RPA. Section 3 presents the research methodology and Sect. 4 the research results and business models of RPA. Followed by expert interviews to gain practical knowledge, the results are faced in Sect. 6, subdivided into the nine components of the BMC. Section 7 introduces a case study to validate the proposed RPA business model canvas. Section 8 discusses the results, the contribution to theory and practice, and provides an outlook.

2 Foundations of Business Models and RPA

2.1 Business Models and Business Model Canvas

Osterwalder and Pigneur [10] define the business model as “the rationale of how an organization creates, delivers, and captures value”. The authors describe it through the utilization of the BMC, which serves as a conceptual framework consisting of nine building blocks that are carefully examined in relation to one another. It can be understood as a link between strategy and business processes [11]. The widely adopted BMC offers the opportunity to visually break down a complex business model into its key components, enabling a structured representation that serves as a foundation for analysis, modifications, optimization, and holistic depiction of the business model [12]. The nine key components are: (1) the value proposition (VP), (2) customer segments (CS), (3) customer channels (CC), (4) customer relationship (CR), (5) key resources (KR), (6) key activities (KA), (7) key partners (KP) as well as (8) revenue streams (RS) and (9) cost structure (CST). These form together the value creation, value delivery, and value capture [13].

The value proposition stays at the center of the BMC. Businesses are responsible for addressing the interests, requirements, and desires of their customers by providing

a distinct value proposition and resolving their problems. It's essential to identify and highlight the Unique Selling Proposition (USP) that differentiates the organization from its competitors. Building blocks (2)–(4) collectively form the value delivery aspect that takes the customer perspective into account and showcases how the created value can be effectively delivered to customers. It deals with customers who need to be positioned at the core of a business model. The target group is defined, channels are determined to facilitate the purchase and assessment of the value proposition, and the relationship with each customer is cultivated. The primary focus is on the relationship that customers expect and desire, rather than the one the organization prefers and seeks to define. Building blocks (5)–(7) contribute to the value creation that sheds light on the value generation system of an organization. Key resources are indispensable for value generation and can encompass tangible and physical goods, as well as financial, human, and intellectual resources. Key activities involve tasks related to value creation and problem-solving. The network of suppliers and supportive individuals is defined as part of the key partners. Finally, building blocks (8) and (9) address the value capture, which revolves around the revenue model. Revenue is generated once the target audience is willing to pay for the offered value. Costs encompass monetary expenses necessary for resource provision, establishing a supportive network, and conducting activities [11, 14].

2.2 Business Models in the Field of Robotic Process Automation

The development of a working, profitable and sustainable business model depends on a multitude of factors. For example, Axmann et al. [15] analyzed and categorized cost drivers and proposed a framework for estimating the costs of RPA projects. Besides of costs, multitude factors include, e.g., company size, organizational structure, and strategy. Asatiani et al. [16] examined questions like how RPA should be deployed and how to build an optimal Operating Model for the company. This goes beyond mere cost and benefit comparison, which is already a challenge to be measured for RPA according to [17]. Factors such as digital mindset within the company and the motives for moving towards RPA must be considered as well. Thus, there is no universal solution for building a consistent business model for RPA [18]. Plogmaker et al. [19] embedded RPA in a business model to include technical, economic, as well as organizational and social aspects, such as customer benefit, purchasing or strategy with a focus on value creation.

3 Research Methodology

Our research methodology follows the Design Science Research approach [20] adapted by [21] consisting of four phases: (1) awareness of problem, (2) data collection and suggestion, (3) development, and (4) evaluation and conclusion.

Awareness of problem: Starting point is the case of a large German company's internal IT service provider developing a new line of business, RPA. The aim is to implement the technology but faced challenges in creating a sustainable business model. After an initial literature search and in accordance with [8, 9], existing work and practice-oriented publications lack explanations of integrating RPA into the business and achieving goals. Transferability and access to general insights for drawing conclusions about individual

applicability are limited [22]. There is a disparity between theory and practice when it comes to building an RPA business model.

Data collection and suggestion: To identify the empirical values and best practices associated with RPA and business models of individual companies, an extended literature review is conducted following [23]. For this purpose, the literature review starts by defining superordinate keywords to narrow down the search. First, a keyword query is performed on Google Scholar, searching mainly for the keyword Robotic Process Automation, RPA, and Business Model. We include English and German literature (with corresponding keyword translations). Further refinement of the search is done by deriving more specific keywords, such as process automation, process optimization, standardization, Business Model Canvas, and software robots, after an initial review of scientific literature. Various online library catalogs and databases are assessed, including those of the university, Springer Link, and ScienceDirect. To answer the research question in Sect. 1, specific criteria are set for the literature, like the use of technical literature, scientific publications and studies, references to RPA and business models or cross-cutting topics, and high-quality scientific publications. From the analysis of the literature, we extract seven distinct categories of crucial factors for creating a business model of RPA. In a second step, we conduct semi-structured expert interviews [24] using the BMC to qualitatively analyze and interpret the gathered data. The aim of this application-oriented research is to generate practical knowledge for addressing real-world problems by looking at the entirety of a holistic business model, its building blocks and how they relate to each other [25].

Development: The findings of the expert interviews are compiled, taking into consideration the theoretical foundations and the current state of research, thereby creating a synthesis between theory and practice. They are organized into Sections on value proposition, value delivery, value creation, and value capture. These empirical results, extracted from the experiences, are consolidated within a BMC.

Evaluation and conclusion: To verify the theory in practice and validate statements while gaining new practical, realistic insights, a single-case study [26] is conducted using Burda Digital Systems GmbH as an example. The case study consists of expert interviews and exploratory process development, resulting in a PDCA-list (Plan-Do-Check-Act) within the company [27].

4 Literature Review

Real-world examples came from the energy, finance, and pharmaceutical sectors [22]. It is crucial to consider these aspects collectively, as they are interrelated. We organized them into seven distinct categories, presented in the following (see Table 1).

(I) *Organizational:* To anchor RPA within an organization, it's necessary to establish a multidisciplinary Center of Excellence (CoE) with process analysts, developers, architects, and managers as key roles [22].

(II) *Operating Model:* A central part of the RPA deployment is the operating model, including the individual units and their responsibilities. We can differentiate three different forms: the centralized model, the decentralized model, and the hybrid model. The centralized model includes a CoE, usually situated within the IT unit. Lines of communication are short, scaling is easy, all knowledge is bundled in one central location

and it reduces the risk of multiple RPA solutions running separately and in parallel [22]. The decentralized model includes many small CoE, located in the various business units. They are structured differently depending on the organization. The hybrid model is characterized by a CoE with additional process analysts in the individual units [18].

(III) Development Approach: A CoE may pursue different development approaches, such as the make, buy or offshore approach. With the buy approach, external developers implement processes independently or in cooperation with internal developers. With the make approach, the organization itself provides the developers as a resource. With the offshore approach, the development of the processes is partially or completely handed over to developers at offshore locations, who in turn pass the productive implementation of the processes to the onshore locations. This approach seems inexpensive, but has the disadvantage of the lack of process knowledge and the lack of corporate mentality on the part of the offshore developers [16].

(IV) Change Management: Change Management focuses on successfully establishing a new RPA technology in the organization involving employees and managers in this process [6]. The focus must be on transparent communication towards the staff and conveying strategy and vision in the interest of the individual well-being of the employees. The introduction of RPA technology can be established through a top-down or bottom-up approach. With the top-down approach, RPA is controlled from the executive level without prior consultation or communication with employees, often leading to negative and destructive attitudes towards RPA. With the bottom-up approach, technology is introduced or accompanied by the employees themselves, resulting in better understanding and enthusiasm. This successful integration can be supported if employees identify new processes for implementation themselves and thus endorsing the new technology [22, 28].

(V) Service Model: When choosing the service model, there is the option of using RPA as Software-as-a-Service (SaaS) with monthly license fees for using the software. In addition, there is the Automation-as-a-Service (AaaS) in the RPA environment. With the AaaS the service provider is responsible for the control and administration of the software robots as well as the development, operation, and monitoring of the processes. The software robots are running in the own data center. This option basically serves as an alternative to setting up an own RPA business model [16].

(VI) Security Concept and Monitoring: Since software robots work with data, certain compliance and data protection guidelines must be adhered to. It is recommended to set up an internal set of rules with guidelines, risks, and mitigation actions. In addition, monitoring plays a crucial role in process monitoring and measuring performance [18, 29].

(VII) Infrastructure and Pipeline- and Case-Management: To ensure testability, traceability, scalability, and robustness, the use of development, stage, and production environments is recommended. A critical aspect is the identification and prioritization of processes that yield significant benefits [18].

Table 1. Factors for creating a business model of RPA.

Category	Description	Ref
<i>(I) Organizational</i>	<ul style="list-style-type: none"> • Establish a multidisciplinary CoE • Process Analyst: identification, analysis, documentation, organization, structuring, process capture • Developer: design, development, testing, documentation, maintenance, process evolution • Architect: rollout, support, enhancement, and scaling of the RPA software • Manager: strategy, vision, point of contact, monitoring 	[16, 18, 30]
<i>(II) Operating Model</i>	<ul style="list-style-type: none"> • Centralized model: centralized CoE • Decentralized model: various CoE in the business units • Hybrid model: centralized CoE + process analysts in units 	[16, 18]
<i>(III) Development Approach</i>	<ul style="list-style-type: none"> • Buy approach: external developers • Make approach: internal developers • Offshore approach: developers at offshore locations (lack of process knowledge) 	[16]
<i>(IV) Change Management</i>	<ul style="list-style-type: none"> • Involvement of employees and managers <ul style="list-style-type: none"> – Top-down approach: introduction of the technology starts from the leadership level; Bottom-up approach: introduction of the technology starts from the employee level • Integration of the technology within the organization <ul style="list-style-type: none"> – Identification of processes by employees – Communication of the company's motivations – Establishment of a shared vision • Development of a strategy 	[29, 30]

(continued)

Table 1. (continued)

Category	Description	Ref
(V) <i>Service Model</i>	<ul style="list-style-type: none"> • Software-as-a-Service: license fee for cloud-based software usage • Automation-as-a-Service: cloud-based control and administration (service provider takes responsibility for the development, operation, and monitoring), software robots are hosted in the customer's data center (offering an alternative to building an in-house RPA model) 	[16]
(VI) <i>Security & Monitoring</i>	<ul style="list-style-type: none"> • Compliance and data privacy • Documentation of guidelines, risks, and measures • Process ownership retained within the department • Quantification of RPA performance (KPIs) 	[18, 29, 31]
(VII) <i>Infrastructure & Pipeline- and Case-Management</i>	<ul style="list-style-type: none"> • Use of development, stage, and production environment • Identification and prioritization of new processes • Managing customer demands • Implementing a back log for improvements (6-month cycle) 	[17, 18]

5 Expert Interviews

A semi-structured approach is adopted for the expert interviews with an interview guide to ensure data comparability [24]. The BMC is used as analysis tool to support structuring and focusing on the aspects of value proposition, creation, delivery, and capture. A set of 25 potential questions is identified, shown in Table 2, for 60-min interviews via Microsoft Teams, with audio recordings for data collection. Interview duration varied between 20 to 75 min due to time constraints and unanswered questions. Interviews are anonymized to foster trust and openness. Data processing entails organizing and structuring information for preparation and evaluation purposes. The transcription includes the rule-based assignment of the answers to the questions and the building blocks of the BMC. The transcription by meaning is a sufficient means for eliciting descriptive and subjective experiences of the interviewees.

Table 2. Interview guide.

(I) Personal		1. What is the scope of your position?
(II) Value Proposition		2. What problems do your customers face and how do you solve them? 3. How long have you been offering this service?
(III) Value Delivery	(a) KR	4. Which software do you use and why? 5. Is there any additional RPA software you are using? 6. Please describe your setup 7. How many people are dealing with the topic of RPA within the company? 8. How do you train yourself and your employees?
	(b) KA	9. What activities are involved?
	(c) KP	10. What collaborations are needed to provide your service?
	(d) CST	11. What are your costs?
(IV) Value creation	(e) RS	12. What is the composition of your revenues? 13. At what size of a process is it worth to order its automation?
	(f) CR	14. How do you manage the relationship with customers? 15. How can customers give feedback? 16. What does the first meeting with customers look like? 17. How is RPA accepted by customers, employees, and management?
	(g) CC	18. How do you market RPA? 19. Which channels do you use to interact with customers and clients?
	(h) CS	20. How do you describe your target group or which processes can be automated well?
(V) Optional Questions		21. What expectations towards RPA did you start with, how do you feel about it now? 22. What challenges do you currently face? 23. What are future goals? 24. What lessons learned have you been able to gather? 25. What do you think is key to a successful business model of RPA?

The target group comprise professionals working in the field of RPA across different industries. Since developing a business model requires a comprehensive understanding of various aspects, the aim is to gain insights into the diverse perspectives of RPA.

To achieve a well-rounded and inclusive representation, a heterogeneous mix of companies is sought, resulting in 21 interviews conducted (see Table 3). The interviewed experts serve as representatives of their organizations with valuable knowledge in the domain of RPA, offering practical insights into their subjective experiences, opinions, and attitudes. The interviewees are classified into three RPA experience levels: Beginner (<1 year), Intermediate (1–3 years), and Advanced (>3 years). Organizations included those engaged in developing *internal* processes using RPA at corporate and organizational levels as well as those focusing on providing *external* consulting and implementation of RPA solutions to clients. This highlights the value of RPA both as a product and as a service.

Table 3. Overview of the interviewees' characteristics.

Personal		Company-specific			
ID	Experiences	Industry	HQ	#Employees	Business model
A	Intermediate	Chemistry	DE	10.001 +	Internal
B	Beginner	Machine	DE	10.001 +	Internal
C	Advanced	Automobile	FR	10.001 +	Internal
D	Beginner	Finance	LU	10.001 +	Internal
E	Advanced	Biotech	US	5.001–10.000	Internal
F	Advanced	Finance	DE	5.001–10.000	internal & external
G	Intermediate	Logistics	DE	5.001–10.000	Internal
H	Intermediate	Finance	KG	501–1.000	Internal
I	Advanced	Finance	DE	501–1.000	Internal
J	Advanced	IT & Consulting	DE	501–1.000	External
K	Beginner	Real estate	DE	50–1.000	Internal
L	Beginner	IT & Consulting	DE	501–1.000	Internal
M	Intermediate	IT & Consulting	DE	201–500	External
N	Intermediate	Event	DE	201–500	Internal
O	Advanced	Chemistry	IN	51–200	Internal
P	Advanced	IT & Consulting	DE	11–50	External
Q	Intermediate	IT & Consulting	DE	11–50	Internal
R	Beginner	IT & Consulting	DE	11–50	External
S	Intermediate	IT & Consulting	DE	2–10	External
T	Beginner	IT & Consulting	DE	201–500	Internal
U	Beginner	IT & Consulting	DE	201–500	Internal

6 RPA Business Models

The expert interviews are analyzed with the integration of current theory and practice, resulting in empirical results which are organized into Sections on value proposition, delivery, creation, and capture, and finally consolidated within a BMC, as shown in Fig. 1. Selected results are summarized and discussed in the following. Please refer to Fig. 1 in cases where a specific building block is not further elaborated.

6.1 Value Proposition

Value Proposition (Building Block 1). We asked the interviewees to describe their value proposition by addressing the following two questions: What challenge does their customer base face, and how do they provide a solution? The predominant issue highlighted by the customers was a lack of time (A, C, D, F, G, S). Company D strongly affirmed this by stating “Robots do the work, we all hate” (D). Similarly, Company E emphasized the need for a straightforward resolution to the problem, noting that “most companies don’t care about how it is implemented” (E). It is crucial to prioritize understanding the customers’ needs and addressing their challenges (L).

6.2 Value Delivery

Customer Relationship (Building Block 4). The interviewees were asked about the nature of the relationships they maintain with their customers. Company T emphasized that relationships involve practical aspects such as competence, goal orientation, and efficiency, as well as emotional values like trust and understanding (T). To gain insights into the overall sentiment, the companies were asked about the reception of RPA by customers, employees, and management. The mood varied, but the majority expressed a highly positive sentiment (A, B, F, R). They appreciate the positive impact of RPA in eliminating tedious processes (B). Companies D, K, and L described the mood as mixed, with awareness and understanding of RPA seen as prerequisites (D, K, L). Company I initially encountered skepticism towards software robots but successfully addressed it by building a positive image and branding the robots as “Roberta” (I).

6.3 Value Creation

Key Resources (Building Block 7). During the exploration of key human resources, the interviewees were requested to provide insights into the allocation of tasks and roles related to RPA within their organizations. The distribution of roles aligns with the responsibilities outlined in Sect. 4, and the CoE plays a significant multidisciplinary role. Companies A and B follow a hybrid organizational structure, where both a CoE exists, and developers are situated within individual business units. When discussing employee training opportunities, several options were mentioned, including online communities (A, N, Q, S, T, U), knowledge exchange among colleagues (A, F), learning by doing (C, F, G, L), and assistance from external implementation partners (C, I, O). Companies C and G emphasized the importance of staying updated on their own software solutions as well as competitor technologies (C, G).



Fig. 1. RPA Business Model Canvas.

Key Activities (Building Block 8). The activities involved from initial contact to application operation can be found in Table 4. They are organized according to the responsibilities of the individual interviewees, following the framework outlined in Sect. 4. Table 5 shows selected answers on the companies' challenges, goals and lessons learned. A few interviewees raised concerns about RPA as a software solution. They expressed doubts about its long-term viability (C, J, P). Company J cautioned, "Don't trust the hype. It is a 'too good to be true' technology." According to the interviewed individual, RPA is seen as a fragile and unreliable tool rather than a robust software solution (J).

Table 4. Roles and their key activities.

Role	Key activities	Company ID
Process analysts	<ul style="list-style-type: none"> • Prioritization of processes • Identification of processes • Documentation of processes • Gathering requirements • Customer awareness-raising 	A, C M, P, R A, C, G, K, M, N, Q - S B, N F, M, R
Developer	<ul style="list-style-type: none"> • Development & Testing • Go Live • Implementation of changes • Monitoring • Maintenance of processes 	A, B, E, F, H, J-P, S A, I, S A, E, N, Q A, D, J, K, L, N, O G, J, M, N, Q
Manager	<ul style="list-style-type: none"> • Consultation with customers • Acquisition • Project Management • Standardization and documentation 	A, G, K, M, N, Q, R C, D, E, F, R C, F F, G, I, N
Architects	<ul style="list-style-type: none"> • Infrastructure & setup 	C, E, F, H, K, R

6.4 Value Capture

Revenue Streams (Building Block 5). Most interviewees had limited knowledge about the exact breakdown of revenue streams. The majority reported that the automations are not directly sold to customers; instead, the costs are covered by the organization itself (A, B, E, G, P, R). Company P even considered full cost recovery as risky because it could potentially deter customers and leave the software robot underutilized. A possible breakdown of revenue streams can be found in Fig. 1.

In line with the revenue streams, interviewees were also asked to answer the question: At what scale of a process does it become worthwhile for the client to automate it? Revenue is generated when the target audience is willing to pay for the offered value (U). Thus, investment is required in analyzing suitable processes and customers (C, D, T, U). Process identification and prioritization, as mentioned in Sect. 4, are crucial factors. Company C evaluates processes based on questions such as: How much employee

capacity can be saved? Are there tasks that are not feasible without the software robot? The interviewee recommended always considering whether another application might be better suited for optimizing and solving the problem (C). Multiple companies advised starting with small processes to gain a better understanding of RPA (B, G, P, R, S). Company D provided an example: “If a process requires more than 10 days of effort but saves more than 10 days, it is personally worthwhile because employees can then perform more challenging tasks, and motivation increases” (D).

Table 5. Challenges, goals, and lessons learned.

Category	Activities
Challenges	<ul style="list-style-type: none"> • Profitable positioning of the software within the company (C) • Building a good strategy (C) • Sensitizing customers and employees (C, D, R)
Goals	<ul style="list-style-type: none"> • Integration of RPA, AI, and OCR for evaluations (D, G) • External consulting (G) • Expanding RPA competency (S)
Lessons learned	<ul style="list-style-type: none"> • Dare to make mistakes (A, F, M) • Integration into the company (C, L, R, S, U) • Empowering employees to identify processes (G) • Do not proceed “quick and dirty” & grow too fast (G, J) • Considering all interests, such as works council, staff, audit, and management (G, N, P, S) • Hands on transparency and awareness (L, T) • Setting the right expectations (N, P, S) • Communicating strategy and goals (I, R) • Establishing a CoE (P, R) • Plan enough time & buffers & don’t grow too fast (A, C)

7 Case Study Burda Digital Systems GmbH

A case study was conducted on Burda Digital Systems GmbH (BDS) to validate the theory in practice and gain new practical insights. BDS is an internal IT service provider affiliated with the parent company Hubert Burda Media with approximately 10.500 employees worldwide. BDS acts as an automation partner for intra-group clients. The objective is to deliver prompt solutions for RPA to internal clients and establishing RPA as a sustainable and successful corporate service while building a high-performing internal organization. To that end, BDS aims at developing an effective business model of RPA and strategically expanding the use of this technology across the entire corporation.

The results of the expert interviews and exploratory process development demonstrate similarities between theory and practice, which highlight the added value of qualitative research in practice: the acquisition of knowledge from real situations. The BMC proved to be an optimal tool for structuring and examining the business model as a whole,

including the interaction of its individual building blocks. A key finding regarding the research question on the structure of an RPA business model is that a combination of various areas and aspects is crucial, such as raising awareness among employees and partners, creating an understanding of RPA, and identifying suitable processes. The developed PDCA list [27], shown in Table 6, contains potential next steps and recommendations. The content of the PDCA list is presented with a general character, detached from individual cases, and will be used, redefined, and questioned iteratively in conjunction with the BMC in the future.

Table 6. PDCA List.

Plan <i>Planning Phase</i>
<ul style="list-style-type: none"> • Development of a shared vision and strategy • Involvement of employees, management, and all key partners • Definition of the operating model (integration of RPA into the company)
Do <i>Implementation Phase</i>
<ul style="list-style-type: none"> • Creating transparency regarding goals, vision, and the “why” • Raise awareness of the technology • Standardization and optimization before automation
Check <i>Evaluation Phase</i>
<ul style="list-style-type: none"> • Did the process pay off? • What would motivate existing customers to commission another process? • How can the relationship and project stand out to the clientele?
Act <i>Optimization Phase</i>
<ul style="list-style-type: none"> • Capturing, sharing, and documenting lessons learned • Creative thinking without limits: “How would we build the business model if we had unlimited resources?” • What are the strengths and weaknesses of the current business model?

8 Discussion and Conclusions

This study contributes to a better understanding of RPA business models and addresses the gap in scientific research characterized by insufficient qualitative depth. Our findings align with existing research such as [16–18, 29–31] and further enhance it by providing a holistic view of RPA business models overcoming the heterogeneity, lack of structure, and limited practical applicability [7–9]. This was achieved through expert interviews and a case study, resulting in the creation of a uniform RPA business model canvas, which is a first in this field. This work expands the BMC by incorporating multiple perspectives and a top-down technical view.

Practitioners can learn about RPA implementation practices and gain awareness of individual components. Using the BMC as a structuring framework and creating a PDCA list for actionable recommendations, these findings help further development and transfer to their own case. Through this process, practitioners can effectively apply the current state of research on RPA business models within the analytical model framework, facilitating practical implementation.

While being widely adopted and accepted, the BMC itself has inherent limitations and alternative models should be considered and tested. It should be noted that the research findings of this study do not have a normative character that can be universally applied to others' business models. They rather offer practical insights and recommendations tailored to specific research contexts. Defining key performance indicators is advisable for measuring success after implementation.

Future work includes further validation of the results through qualitative investigations or surveys in diverse organizations and industries to identify additional criteria as well as applying and validating the created BMC. Even if the case study is successfully implemented at BDS, the BMC and the PDCA list must be continuously revised and applied iteratively. Besides concentrating on the big picture, an additional research avenue may encompass focusing on specific building blocks, considering additional models such as the Value Proposition Canvas. One goal would be the long-term stabilization of RPA in the company, including, for example, the customer segment.

In conclusion, this research examined the components of RPA business models by means of 21 expert interviews and a case study, validating the theoretical structures and processes in practical settings and providing valuable insights into the practical implementation of RPA. The gathered knowledge and recommendations are summarized in the BMC offering a comprehensive roadmap for sustainable RPA business models. The BMC highlights the importance of customer focus, technology integration, employee awareness, and process identification. It is crucial to understand that building a successful RPA business model requires more than just technological understanding. Although RPA is not as established as other technologies, it can serve as a transitional solution in the context of digital transformation. Establishing a robust RPA business model is vital to support organizations amidst the rapid changes and complexity of the digital landscape.

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