DOCTORAL CONSORTIUM

ACCEPTANCE AND DEVELOPMENT OF BEYOND BANKING ECOSYSTEMS

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This paper aims to examine the acceptance and development of Beyond Banking Ecosystems. It analyzes current market trends, the phenomena and classifications these ecosystems exhibit, and how their acceptance among bank customers can be evaluated. Current market studies are first reviewed to validate the research questions of relevance and acceptance of Beyond Banking services, followed by expert interviews from banking sectors to gain deeper insights into existing activities and assess potential business models. Additionally, a survey is conducted to gauge customer interest and acceptance. The results of this paper form the basis for the future design of a scalable ecosystem beyond banking. Its development will provide bank decision-makers with knowledge and a practical tool for strategically aligning beyond-banking initiatives.

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1 Introduction

Beyond banking, developing additional revenue streams for banks is highly topical. Since the launch of API interfaces under the Payment Services Directive 2 (PSD2) agreement in 2019 to introduce more extensive financial data disclosure, bank customers can easily choose third-party products via their online banking and various platforms (Deloitte, n.d.). This Open Banking strategy signifies a significant shift from a closed financial system to an open, customer-focused ecosystem influenced by regulation. The vision is for banks to become platform providers that cover more than just pure financial services.

1.1 Beyond Banking

Beyond Banking refers to banking transcending conventional financial practices, focusing on revenue generation beyond the standard banking model (Junghanns & Niebudek, 2019). Collaborating with third-party providers can facilitate the creation of novel business models that extend beyond traditional banking offerings. This concept includes various innovative financial products, services, and technologies designed to elevate customer experiences, enhance efficiency, and broaden access to financial services (Frankenberger et al., 2024).

1.2 Ecosystems and categorizations

Beyond Banking can unlock its full potential by leading and shaping the open banking era. Open banking (Cumps et al., 2020) reveals or makes accessible all key contact points in the banking industry: products, customers, and ecosystems (Figure 1).

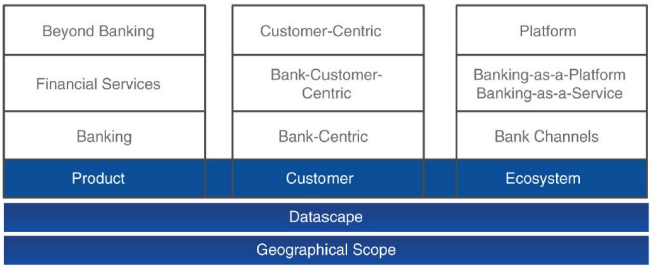

Figure 1: Framework for an Open Banking Strategy
Source: Cumps et al., 2020

Gómez-Márquez (2023) defines an ecosystem as a collection of organisms that live and interact within a specific environment. In the banking sector (Cumps et al., 2020), we can discuss a customer-centric strategy within the platform ecosystem where the customer engages with the bank and its partners. Additionally, this marks the expansion of the banking ecosystem and easier access to financial services, specifically the ability to reach beyond banking services through a platform that connects with third-party providers at this second development stage 2.0. Just as Li et al. (2016) predicted that the market would shift from a one-sided to a two-sided structure, the banking market is now experiencing a similar situation: a bilateral relationship between banks and third-party providers. This relationship should regularly exchange data streams and create value for customers. The recent emergence of Beyond Banking Ecosystem (BBE) 3.0, featuring an intra-institutional approach (Knörrer et al., 2021), has become particularly evident among cooperative banks. In this model, banks serve as market orchestrators, linking customers and facilitating the balance of supply and demand as intermediaries. This may increase the presence of various Third Party Providers (TPP) services. Based on historical observations and studies, BBEs can be categorized into three distinct stages:

Stage 1.0: Initial Beyond Banking relationships exist in isolation, lacking an automated ecosystem approach (Liang & Savage, 1990).

Stage 2.0: A B2C inter-institutional approach allows bank customers to receive offers from third-party providers (TPPs) (Li et al., 2016).

Stage 3.0: An intra-institutional approach (C2C) emerges, enabling bank customers to act as suppliers and consumers within the bank, with the bank operating as a marketplace (Knörrer et al., 2021).

2 Problem definition

Beyond banking offers excellent potential for banks to develop new sources of income. Recent studies (Chung et al., 2020) indicate that progress is underway in the initial two expansion stages. Nevertheless, limited research focused on the banking sector, and almost no exploration at the ecosystem level 3.0 incorporates an intra-institutional strategy. This strategy emphasizes a customer-to-customer (C2C) business model and the bank acting as a market orchestrator, leveraging machine

learning and data analytics for customer matching. Banks are aware of the usefulness of Beyond Banking, the potential added value for customers, and want to expand their business model via digital ecosystems (zeb-consulting, n.d.), but are initially sticking to purely financial products. This is because there is still a lack of clear business cases and the necessary skills to realize the potential of Beyond Banking.

This paper also investigates Beyond Banking's revenue potential, which developments and activities are taking place in expansion stage 2.0, what experience has already been gained with stage 3.0, and to what extent initial insights can be gained in direct comparison with both stages. Another important perspective is the acceptance on the demand side, i.e., the extent to which acceptance for Beyond Banking Services occurs on the market side.

3 Methodology

Once the fundamental definitions and relevance of Beyond Banking are clarified, alongside an analysis of the current market conditions and research validating its significance today, the concepts of Beyond Banking 2.0—focused on inter-institutional customer matching—and Beyond Banking 3.0—centered on intra-institutional customer matching—are examined. Standardized expert interviews (Hopf, 2004) utilizing a qualitative content analysis methodology are employed to gain deeper insights. The transcription and interview protocols will adhere to the guidelines established by Lamnek and Krell (2016). This study predominantly follows a deductive categorization approach, where pre-formulated questions and existing categories from the expert interviews align with the research questions and hypotheses derived from the literature review. This methodology allows for systematically assigning categories to specific text segments (Mayring, 2022).

Subsequently, further sub-questions are formulated to test specific hypotheses concerning the main questions. For the primary and secondary questions, main and subcategories were developed along the interview guide (Table 1).

Here, RQ1 addresses the revenue potential and developments of Beyond Banking (BB) 2.0 and the experiences of banking experts with BB 3.0. RQ2 deals with various business models for BB 2.0 and 3.0 and Beyond Banking Sales Signals as data-driven recommenders. At the same time, RQ3 focuses on frameworks for creating Beyond

Banking Ecosystems, key influencing factors and criteria, and challenges and risks for the ecosystem constructs.

Table 1: Coding System

Research Questions	Categories	Sub Code 1	Number of citations (frequency)	Frequency in % of 670 citations
RQ1			**483**	**72,09%**
	Revenue potential Beyond Banking		**262**	**39,10%**
		Customer Adoption Barriers	22	2,95%
		Ecosystem Integration Limitations	28	3,76%
		Provider Impatience	9	1,21%
		Indirect Revenue Potential	70	9,40%
		Data-driven Sales Opportunities	49	6,58%
		Diversified Beyond-Banking Services	72	9,66%
		Assessment	12	1,61%
	Developments Beyond Banking 2.0		**130**	**19,40%**
		Observations	13	1,74%
		Added values for customers and banks	70	9,40%
		Co-operations and offers	47	6,31%
	Experiences Beyond Banking 3.0		**39**	**5,82%**
		Yes/No	11	1,48%
		C2C-matching	12	1,61%
		B2C-matching	16	2,15%
	Acceptance and organisational effects		**52**	**7,76%**
RQ2			**92**	**13,73%**
	Business Models		**42**	**6,27%**
		Hypothesis evaluation	11	1,48%
		Use/Business Cases 2.0	18	2,42%
		Use/Business Cases 3.0	13	1,74%
	Possibilities of Dimensionalisation and Scaling		**21**	**3,13%**

Research Questions	Categories	Sub Code 1	Number of citations (frequency)	Frequency in % of 670 citations
		Decision-makers	8	
	Beyond Banking Sales Signals		**29**	**4,33%**
		Yes/No	13	1,74%
		If yes, utilising potential and determining	6	0,81%
		Establishment and use	10	1,34%
RQ3			**34**	**5,07%**
	Guideline/Concept/Framework for creation of BBE		**15**	**2,24%**
		Yes/No	12	1,61%
		concepts and frameworks	3	0,40%
	Key influencing factors and Criteria		**19**	**2,84%**
	Challenges and Risks		**61**	**9,10%**
		Challenges for BB 2.0 and 3.0	13	1,74%
		Legal risks	17	2,28%
		IT risks	18	2,42%
		Other risks	13	1,74%

Source: own illustration

After conducting the interviews, the responses from interviewees will be coded and categorized according to a structured coding agenda. Extensive research led to selecting MAXQDA software (Friese, 2016) for qualitative data analysis (QDA) and interview evaluation. The software's capability to integrate AI for automatic transcription and translation of interview texts was particularly persuasive, allowing the author to efficiently proceed with manual editing and coding (Cao et al., 2023).

Before data collection, it is crucial to identify suitable experts based on their skills and working environments relevant to the studied topic. Kuckartz (2018) emphasizes that the quality of information significantly hinges on the participant selection for expert interviews or evaluations. Furthermore, Creswell (2009) argues that qualitative approaches are warranted for concepts or phenomena that lack thorough research. Therefore, Mayring's deductive categorization is complemented by an iterative process that enables ongoing formative assessments of category

reliability and the created coding agenda, allowing for necessary modifications. Lastly, quantitative analysis elements such as frequency or correlation assessments may be included in the evaluation.

The primary goal of engaging with experts is highlighting banks' current efforts in adopting open banking models, particularly in Beyond Banking Ecosystems. The study will explore how to dimensionalize and scale these Ecosystems, prompting banks to consider which use cases they will pursue to unlock Beyond Banking opportunities. Additionally, it will examine the sales strategy and the extent to which Beyond Banking Sales Signals are utilized to enhance profitability. Interviews were conducted with 10 experts from private, regional, and international banks regarding inter-institutional customer matching (Beyond Banking 2.0) and the focused intra-institutional customer matching method (Beyond Banking 3.0). These bank experts and professionals from non-banks, start-ups, and IT or platform service providers in the open and Beyond Banking space were consulted via this methodology. Moreover, the insights gathered from these experts will shed light on key influencing factors and evaluation criteria for devising a scalable BBE, thus providing preliminary validation of the hypotheses. Case studies (Gerring, 2007) will underscore initial efforts toward market acceptance of a scaled Beyond Banking Ecosystem and the corresponding customer data matching.

This survey aims to deliver quantitative and representative evidence (Watson, 2015) indicating the market demand for a scaled Beyond Banking Ecosystem with various stages of expansion alongside the emergence of significant customer benefits. Customers are encouraged to contemplate whether they would be interested in receiving non-banking offerings from their banks and if they are willing to permit banks to utilize and share more data to enable improved, targeted, and personalized marketing strategies.

At least 300 bank customers will be surveyed to ensure a representative customer sample. The following hypotheses will be validated by accepting a scaled BBE of 2.0 to 3.0 and confirming customer-to-customer assignment (C2C) through data analysis, an uncharted market area.

4 Preliminary/Expected results

The initial current market environment and studies confirm the relevance and revenue potential of Beyond Banking. Numerous studies indicate that the banking business model is shifting from purely financial services to a comprehensive everyday provider (Sancar & Sgardelli, 2021). In contrast, regional banks primarily concentrate on establishing a digital ecosystem at the regional level (Knörrer et al., 2021). Europe is falling behind in international comparisons. There is significant activity in beyond-banking case studies worldwide. For example, JP Morgan Chase & Co. is set to launch a full-service travel solution (de Backer et al., 2023). This is also confirmed by case studies on German regional and international banks, especially from Asia (Fastnacht, 2023; Knörrer et al., 2021).

In further research, expert interviews from banking circles should shed light on the provider side's acceptance and development of BBE. Limited knowledge and activities regarding BBE 3.0 and new data-driven sales recommenders (Beyond Banking Sales Signals) are expected, as well as standardized governance concepts in frameworks, blueprints, etc. Furthermore, the initially deductive category approach along the lines of the questions in the pre-prepared interview guide followed an inductive approach, particularly in the category "Revenue potential Beyond Banking," because experts provided much-differentiated feedback on this, which had to be analyzed. In summary, it can be concluded that most experts see (high) potential in BB under the sub-code "Assessment." This means that four experts rate the potential as high to very high. Two experts rate the potential as existing. The other two experts have a differentiated view on this, namely that the monetary revenue is questionable or depends on the use case. However, there is potential for indirect revenue. One expert rates the potential as relatively low, and another expert could not provide an estimate.

In addition to evaluating expert knowledge, customer demand is also essential to find out, with the help of a survey, whether there is any interest in and acceptance of Beyond Banking Services. It is also likely to be researched here that customers are receptive to this new range of services, provided that the added value services are convincing and there is a willingness to transfer personal data through consent.

5 Future development

The compiled results will encompass additional attributes and influencing factors, serving as the foundation for a practical design concept for BBE 3.0, which will be carried out in future development. The concept for creating a scalable BBE 3.0 will be ensured using the Design Science Research (DSR) methodology (vom Brocke & Hevner, 2023).

The approach begins with a systematic review of the literature review. This is followed in several iteration cycles by a sharpened target image, which is helped by expert interviews and validated by a focus group as practical suitability. In addition, an updated framework as a decision support system for creating a thriving Beyond Banking Ecosystem can be built on existing decision support systems.

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