Annual Report of the ProcessLab

2021
Dear friends of the ProcessLab,

As in previous years, we would like to inform you about the activities at the ProcessLab with our annual report. Naturally, Corona has also had an impact on us. Since the conferences, which are so important for academic exchange, had largely fallen victim to the virus, we had already focused on the production of journal articles in the previous year. We have now reaped the rewards: In 2021, **29 scientific and practice-oriented articles** were published. And we can already reveal that 2021 has become the **most successful year in the history of the ProcessLab** in terms of the quality of scientific journals!

Another area of activity was the organization of our **own events** – first and foremost the 15th ProcessLab Conference and two ProcessLab Colloquia. These events took place either in hybrid mode or purely physically. We were also significantly involved in the publication of a **new book**.

The number of **interviews** we gave in the reporting year on the topics of payments and platforms was unusually high. In addition, we carried out various **marketing activities**, including the edition of three ProcessLab newsletters, the maintenance of the ProcessLab website, and the provision of information in the area of social media (especially on our Facebook page and the ProcessLab groups on LinkedIn and Xing). We are also active on the scientific platform **ResearchGate**. Current information about our activities can be found on **www.processlab.info**.

The following pages will give you an insight into our activities during the past year. In the first section, we outline the objectives of the ProcessLab and introduce the most important thing in the Lab – our team. Our current research topics are outlined in the second section. The third section contains an overview of presentations at scientific conferences. In section 4, we outline our collaboration with practitioners, while section 5 focuses on scientific collaborations. In Section 6, we report on the transfer of our research results into teaching. Section 7 contains further activities of the Process-Lab, and sections 8 and 9 document the publications, lectures and theses we supervised. In section 10 we introduce our past graduates and in section 11 our sponsors.

We hope you enjoy looking through the annual report and look forward to an exciting 2022 together with you!

Your co-heads of the ProcessLab

Prof. Dr. Jürgen Moormann

Prof. Dr. Daniel Beimborn
1. Aim, team and cooperation

The ProcessLab is a research center of the Frankfurt School of Finance & Management and is positioned in the Management Department. The center bundles the Frankfurt School’s research activities in process management. The aim of the ProcessLab is to develop innovative scientific solutions for process management in the financial sector (but occasionally also for other sectors, such as the healthcare sector at present). This is done in the form of scientific projects, which are carried out in close cooperation with partner companies or other organizations. The project work is mainly carried out within the framework of dissertation and postdoctoral projects, which deal, for example, with the potential of blockchain technology, the effectiveness of operational excellence programs or the coupling of business and customer processes.

In the year under review, the ProcessLab team consisted of Guido Perscheid, Luba Pikovskia (until Feb. 28, 2021) and Elif Demirbas (since April 1, 2021) as well as the two co-heads Prof. Dr. Jürgen Moormann and Prof. Dr. Daniel Beimborn. Our postdoctoral fellow Dr. Nadine Ostern has taken up a professorship at the Bern University of Applied Sciences as of Oct. 1, 2021, following her substitute professorship at the University of Marburg. She remains associated with the ProcessLab, as does Dr. Eugen (Yevgen) Bogodistov, who joined the Management Center Innsbruck in early 2021. Further on, Friedrich Holotiuk (Principal Consultant, Capco) is an external PhD student. Elisabeth Palvölgyi (Customer Journey Expert, ING Germany) has successfully completed her PhD on June 24, 2021.

Prof. Dr. Daniel Beimborn works at the Otto-Friedrich-University of Bamberg (Chair of Information Systems with a focus on Information Systems Management) and continues to share the leadership of the ProcessLab with Prof. Dr. Jürgen Moormann. Julian Frey also works at the University of Bamberg. In the context of our investigations of Digital Innovation Labs, he is also associated with the ProcessLab.

The collaboration within the team was Corona-compliant, i.e., depending on the status of the respective Corona wave, we worked partly in our offices, but also a lot in the respective home office.
2. Research topics

This section provides an overview of those topics that we are currently focusing on:

**Customer-centric banking**

The starting point for this research project is the rapidly changing behavior of customers. Media such as smartphones enable customers to access the most attractive offer anywhere and at any time. In addition, competitors from the non-banking sector are occupying more and more parts of the traditional banking value chain. Banks must therefore move away from their traditional product-oriented perspective (inside-out focus) and align themselves with the actual needs and processes of their customers (outside-in focus). Customer-centric banking thus consistently takes the customer as its starting point. The first step is to identify customer processes, then to analyze their characteristics and finally to examine how the customer processes can be supported by the business processes.

We have been working on this topic for many years. In the context of Dr. Elisabeth Palvögyi’s dissertation, we were able to place two comprehensive works in the Business Process Management Journal; funnily enough, both were published in the same issue (Palvölgyi/Moormann 2021a and 2021b).

The first paper is about the identification of customer process-centric artifacts, i.e., components of which customer processes are composed. However, such artifacts have been developed in different research fields and have different names. Based on the world’s most comprehensive literature study (to the best of our knowledge), we provide a structured overview of existing customer process-centric artifacts and show which artifacts can be applied to customer processes and how. How such processes can be collected cost-efficiently and with high data quality is presented in the second article. Here we present the Interactive Questionnaire. This is a method that makes it possible to survey individual customer processes comprehensively and yet in large numbers. The article empirically proves the superiority of the method compared to previous approaches.

**Adoption of blockchain technology**

Blockchain technology originally emerged as a cryptography-based method for payments, with the goal of creating an alternative trust-building mechanism between two transaction partners. In our research, we focus on the impact of blockchain on business models and analyze the challenges that companies have to overcome before this technology can be successfully applied. Accordingly, our focus is on organizational acceptance as well as management aspects of implementing and applying blockchain solutions.

In an extensive interview study (Ostern/Holotiuk/Moormann 2021), we found that the path to the application of blockchain technology in the financial services industry is highly diverse and that the perceived value of the technology in the organization matters. Our analysis shows that four types of users can be distinguished when testing and using blockchain. This paper, developed from a critical realism perspective, was accepted by the U.S. journal Information & Management in October after several revisions. This is a great
success, as the journal is one of the most internationally influential scientific journals in the field of information systems, with an impact factor of 7.5.

A more technical paper by Ostern/Riedel aims at Know-Your-Customer requirements in Initial Coin Offerings. Here, a system is proposed that is "compliant by design" and based on blockchain technology.

**Decentralized platform-based business models**

Platform-based business models such as Airbnb, Amazon, Zalando, Spotify, etc. have revolutionized entire industries. While both traditional companies and policymakers are grappling with the question of how to counter these business models or how to regulate them, these business models are constantly evolving. Typically, these are centrally controlled platforms. A relatively new development is decentralized, blockchain-based platforms. Such platforms (e.g., Decentraland, Hive, Opus, Power Ledger, Theta) allow goods and services to be sold through peer-to-peer networks, cutting out the middleman. Although this form of platform-based business models is still at an early stage of development, it can become trend-setting for future business models.

Guido Perscheid is working intensively on this topic. In the year under review, we produced two practice-oriented articles to discuss the idea, development and prospects of decentralized platforms more broadly (Perscheid/Moormann 2021a and 2021b). An investigation into the disruptive potential of these platforms was presented by Guido at the Global Business Conference in Croatia. Currently, we are working particularly on governance issues and analyzing what influence blockchain technology will have on the future design of (decentralized) governance. For this purpose, we break down governance into five dimensions, which we can use to measure and compare the actual decentralization of governance structures of blockchain-based business models.

**Cashless payments in the age of mobility and ubiquity**

The Corona crisis has given digitalization a considerable boost in general, but the issue of payment methods in particular has entered the public’s consciousness. As a result, the trend continues to move toward cashless, mobile procedures – whether by card, online, smartphone or combinations thereof. The market continues to be seen as attractive by many players – from FinTechs to the major Internet companies. These companies are trying to compete with traditional banks for customer contact in this part of the value chain or even to embed themselves deeply in customers’ lives with the help of “super apps” (e.g., WeChat, Grab, Klarna).

In our research, the focus is on innovations with regard to business models in payment and the associated processes. This includes studies on payments in the "connected car" (in the context of the Internet of Things), on the new “request to pay” process, and on the prospects of “buy now, pay later” (BNPL) in online retailing.
Other topics include the planned digital euro and current developments on the debit/credit card market, in particular the prospects for the Girocard. There were a high number of interview requests on the payment topics (see section 7).

**Measurement of the Digital Mindset**

In order to understand how companies prepare for digital transformation tasks at the employee level, we are working on measuring instruments for the digital mindset. With the help of a multi-stage expert survey, a multidimensional concept of 14 “thinking patterns” emerged, which in their entirety form a person’s digital mindset. These patterns include obvious aspects such as agile and platform-oriented thinking and openness to new, digital technologies, but also thinking patterns that have hardly been considered in research to date, such as recombinational thinking, bimodal thinking and product-agnostic thinking.

From the multidimensional conceptualization, three survey instruments were developed, whose effectiveness and validity are currently being evaluated with diverse groups of subjects. With the help of a final questionnaire, companies will be able to give their employees or teams an opportunity to reflect on their digital mindset. We will then be able to determine the importance of individual thought patterns for digital transformation tasks in order to make recommendations for specific preparation training. The first results of this project will be presented next year at the International Conference on Information Systems (WI 2022).

**Implementation of IT-based projects in the healthcare sector**

Accelerated by the Covid pandemic, major and lasting changes are taking place in the structures of the healthcare system. Digitalization is playing an increasingly important role in this. For this reason, we launched a study in 2020 to investigate what contribution HIS research (Health Information Systems) can make to the analysis and further development of the healthcare system.

To gain an overview of the current, extensive body of research in the HIS field, we used a hermeneutic framework to conduct a literature analysis that, to our knowledge, is the most comprehensive in the world on this topic. As a result of the analysis of nearly 500 scientific papers, we discovered several deficits in current HIS research. Based on this, we derived future directions for development and developed a research agenda that aligns HIS research with the transformation of the healthcare industry that is already underway.

The article, entitled “Keeping pace with the healthcare transformation: a literature review and research agenda for a new decade of health information systems research” (Ostern/Perscheid/Reelitz/Moormann 2021) was accepted by the highly respected journal Electronic Markets.
The second focus in this field is the development of a gamified information system with the aim of reducing the stigmatization of tuberculosis patients. TB remains one of the deadliest infectious diseases in many countries. A major reason is the stigmatization of TB patients that still exists in many regions. Building on a gamified information system framework developed by Liu et al. (2016), we generated a research plan to develop a gamified app to reduce the stigma of TB patients in Vietnam. The paper was presented by Guido Perscheid at the Hawaii International Conference on System Sciences (online). In this project we cooperate with the Friends for International Tuberculosis Relief (tbhilfe.org). In addition, with the support of students, we have begun to conduct initial interviews to advance the development of the prototype of the app. The results of the interviews are currently being evaluated.

**Process innovation at the example of the health care sector**

For five years, the ProcessLab has been monitoring the Ukrainian health care reform using the example of the model city Kryvyi Rih. In particular, we are investigating the process-related effects of the reform. Among other things, we are interested in the consequences of the change with regard to the efficiency of the hospitals and medical practices there and the effects of the reform on the mental health of the doctors. We are conducting this project in collaboration with Dr. Eugen Bogodistov (MCI Innsbruck) and Prof. Dr. Daniel Beimborn (University of Bamberg). We are cooperating with the department responsible for health management in the city of Kryvyi Rih.

In October, we presented our latest research findings on site and organized a workshop on Design Thinking in Healthcare (photo left). Again, our activities were reported on by the local TV station Rudana (video, photo right). We have also summarized the results in a study – both in Ukrainian and Russian language.

Several articles have already been published based on the data we have collected. In the year under review, the Business Process Management Journal published an article on the relationship between process maturity and patient orientation in times of a healthcare reform (Bogodistov/Moormann/Sibbel/Krupskyi/Hromtseva 2021).
3. ProcessLab at scientific conferences

After 2020, the year under review was also not very suitable for physically attending conferences. We took advantage of a few opportunities, because the participation and the exchange of ideas is enormously important for us and especially for young academics.

Guido Perscheid attended the Global Business Conference (GBC 2021) in Zagreb in September. He presented his own paper on the disruption potential of decentralized platforms and a paper written together with Dr. Nadine Ostern on the further development of data collection, data processing and data protection in order to be prepared for future pandemics.

Conversely, Dr. Ostern presented a paper co-authored with Guido Perscheid at the International Conference on Information Systems (ICIS 2021) in Austin, Texas, in December. It deals with areas of tension that can arise in the implementation and use of blockchain technology in companies. Axel Hund presented another contribution from our research on Digital Innovation Labs and Julian Frey presented a study on Scaled-Agile Organizations; both papers were co-authored with Prof. Dr. Beimborn.

The Hawaii International Conference on System Sciences (HICSS 2021) was again held exclusively online. Here, Guido Perscheid presented our design draft of a gamified app to combat stigmas towards tuberculosis patients in Vietnam.

At the European Conference on Information Systems (ECIS 2021), which was also held virtually, Prof. Dr. Beimborn presented an econometric analysis of the influence of IT investments on competitive dynamics in different industries.

4. Cooperation with practice

A characteristic feature of the work at ProcessLab is the close cooperation with companies in the financial services sector. In 2021, we continued to work together with representatives of our sponsors Commerzbank AG, Loancos Group and UMS GmbH in a spirit of trust. All three sponsoring companies actively supported us in the year under review. Three sponsor meetings were held to coordinate our activities.

In order to maintain contact with practitioners, we also offered several events to the community in the financial sector in 2021:

Two ProcessLab colloquia were held in the year under review, each bringing together participants for a specific presentation topic and subsequent discussion. The first colloquium (March 18) was held exclusively online with 80 participants. We had chosen the topic “Digital Innovation Labs – Status quo und Zukunft”. In the first part, Prof. Dr. Beimborn and Friedrich Holotiuk presented the main results of our study on Digital Innovation Labs (DIL) published in the fall 2020. In the second part, Matthias Schmidt, Head of MOTION at R+V Versicherung, gave an insight into the innovation process of R+V’s Lab MO14 and showed concrete examples.
At the second colloquium (Nov. 4), Theo Bouts and Shivendra Yadav (both HCL Technologies Ltd.) and Rik Rapmund (CEO of WorkPi, Netherlands) spoke about the impact of tokenization on financial services. The speakers presented a software platform that allows asset owners to convert their assets into tokens and trade them on the platform created by HCL. We were able to hold this colloquium with around 25 attendees on site. Added to this were two Indian experts who presented a live case from Dehli, India.

Our fifteenth ProcessLab conference took place on July 7. Open banking, APIs, platforms, digital ecosystems – this range of topics is at the top of the agenda of top managers in the financial services industry. That’s why we chose "Plattformorientierung in der Finanzbranche – Konsequenzen für das Prozessmanagement" as the theme of the conference. 110 participants took part in the conference, which was held in a hybrid fashion as in the previous year (60 on site, 50 online).

The first keynote speaker was Jürgen von der Lehr, Head of Strategy and Executive Vice President of ING Germany. He addressed the central question "How do banks stay relevant?" and presented a three-point plan of ING (photo left). In the second keynote, Ilse Henne, member of the Management Board of thyssenkrupp Materials Services, addressed the benefits of platforms in materials logistics. She brought in the manufacturing perspective with her
presentation "Data replaces tons" and gave interesting suggestions for the financial services industry (photo right).

Other exciting contributions were made by Julius Kretz, Division Manager at the insurer Alte Leipziger – Hallesche, Chris Bartz, CEO of the fintech Elinvar and Chairman of the FinTech Council of the German Federal Ministry of Finance, Guido Perscheid, member of ProcessLab, and Dr. Gregor Wiest, Head of Innovation at ERGO Group. The closing keynote was delivered by Stefan Münter (photo left), Co-CEO of Europace, a subsidiary of the Hypoport Group.

In addition, four inspiration workshops were held by (Dominik Dürschlag, Member of the Executive Board of Aareal Estate, Catharina Münch, Head of Corporate Communications, and Florian Schneider, Analytics Consultant (both mexxon consulting), Marius Gerwinn, CEO and Founder of fileee GmbH, and Dr. Matthias Bock, Manager at PwC, as well as Florian Brokamp, CEO and Founder of ThinkSurance. In these workshops the experts provided specific insights into platform topics. As always, the conference was moderated by Prof. Dr. Moormann and Prof. Dr. Beimborn.

The conference was reported in detail in issue No. 4 (2021) of the journal "gi Geldinstitute".

On the day of the ProcessLab conference, our new book "Digital Ecosystems - Strategies, AI, Platforms" was published. Digital ecosystems and platform structures are predicted to further develop significantly. Particularly, their open architecture as well as their direct interfaces to the customer have the potential to fundamentally change companies structurally and processually as well as to establish new business models.

In this context, many questions arise, e.g., which type of platform is suitable for the respective company, which role the bank or the insurer should take on, and who are the suitable partners for the targeted platform model. The topic thus has enormous strategic implications. But it also raises procedural, structural and technical questions.

This is why Dieter Knörre, Marcus W. Mosen, Prof. Dr. Jürgen Moormann and Dietmar Schmidt have published a comprehensive work on digital ecosystems and platform structures. In this book, 34 experts analyze these new frameworks in twenty contributions with regard to business models, data management and the use of technologies, especially AI. The focus is on the financial services sector.
Our book came at the right time. There is great interest, as evidenced by the book’s circulation, among other things. With currently around 2,200 copies, we have achieved a record in the Frankfurt School Publishers’ specialist book series. Part of the print run has been taken over – and this is also a premiere – by DG Nexolution eG (formerly DG Verlag) as a licensed edition with its own cover. This edition is aimed specifically at the cooperative finance group (picture right).

In connection with the book, the Frankfurt School had invited to a virtual journalists’ session with Professor Moormann (July 22, 2021). As an intro, he gave a talk on “Digitale Ökosysteme in der Plattformwirtschaft – zur Rolle der Banken” (video).

On the occasion of the publication of the book “Digital Ecosystems”, the authors and editors came together at the Frankfurt School to celebrate the success of the book (in the picture from left to right the editors Knörrer, Mosen, Moormann and Schmidt).

The book was also acknowledged in detail by the Bank Blog in the article „Ausrichtung auf die Plattformwirtschaft“ by Dr. Hansjörg Leichsenring (Sept. 16). A book presentation can be found on AssCompact Online (July 26).

Further lectures and conference presentations held by us can be found in sections 7 and 8.

5. Scientific cooperations

Cooperation with other universities is of central importance for our work. More and more, scientific publications are produced in co-authorship with researchers from other universities in order to bundle different know-how regarding methodology, domain and solution approaches.

A brandnew collaboration has arisen due to Dr. Bogodistov’s new assignment with the Management Centrum Innsbruck. Currently we are pushing several projects, including a theoretical model for Lean Six Sigma. Two papers are under review. And, of course, we are cooperating in our Ukraine project (see section 2).
After her move to the **Bern University of Applied Sciences**, Dr. Nadine Ostern is still associated with the ProcessLab of the Frankfurt School. In addition to the above-mentioned paper together with Prof. Dr. Rosemann on action potentials of digital technologies, we are working, here in particular with Guido Perscheid, on concepts for the integration of game elements (gamification) in smartphone-based information systems with the aim of reducing the stigmatization of tuberculosis patients.

There is close cooperation with Prof. Dr. Michael Leyer from the **University of Rostock**. In the year under review, a joint paper (Hirzel/Leyer/Moormann 2021) was published by the journal "International Journal of Innovation Management", and another paper (Leyer/Reus/Moormann 2021) was published in the journal "Production Planning & Control".

We have been in close contact with the **Queensland University of Technology** in Brisbane, Australia, for many years. Our contact is Prof. Dr. Michael Rosemann, Director of the Centre for Future Enterprise and Professor of Innovation Systems. He is one of the most internationally influential experts in the field of process management and process innovation. Currently, Prof. Dr. Rosemann, Dr. Nadine Ostern and Prof. Dr. Moormann are working on a comprehensive journal article to better understand the action potentials of digital technologies (using blockchain as an example). The article is based on the "affordances perspective", whereby our model differentiates between technical, design and business affordances.

Two research projects are underway with Assoc. Prof. Ayon Chakraborty, who works at **Federation University Australia** in Ballarat: An empirical journal article on Lean Six Sigma is under review. Together with other international partners, we have also started an empirical project on the "Circular Economy". Professor Chakraborty works in the field of Engineering Project Management.

With our partner Prof. Maggie M. Wang at the **University of Hong Kong** (HUK), who heads the Laboratory for Knowledge Management & E-Learning in the Faculty of Education, we remain in good contact. Prof. Dr. Moormann serves as an Associate Editor for the journal "Knowledge Management & E-Learning: An International Journal", which is edited by Professor Wang. She is one of the top researchers at HKU.
6. Transfer of research results to teaching

Thanks to an expanded digital learning environment, all planned lectures could take place at the Frankfurt School – partly as hybrid and partly as online-only events.

The courses offered by the ProcessLab follow the idea that for the successful management of companies a deep understanding of the interrelation of the three design fields "corporate strategy - process management - information systems" is necessary. The goal of our courses is to convey this understanding and the essential contents of these design fields. Analogous to the ProcessLab framework, the DNA of a company is shaped by two components – the development of the process architecture (i.e., business engineering) and process management (i.e., implementation, analysis, further development). Both should be based on a clear strategy of the company. We consider information systems integratively, respectively they are taught by colleagues in business informatics. With our teaching, we pursue a deliberately design-oriented, management-driven approach, which is currently offered in this consistent form by only a few universities.

Already in the Bachelor program (B.Sc.), the students of the Frankfurt School intensively deal with the essential aspects of the design of companies (module “Strategy and Organization”). The focus is on the basic principles of strategy development, structural organization and process organization. We have also held lectures on “Process Management” in the Bachelor of Arts program (Dr. Nadine Ostern in Frankfurt, Prof. Dr. Jürgen Moormann in Munich and Prof. Dr. Michael Leyer in Düsseldorf and Hamburg).

In the Master's program (M.Sc.) at the Frankfurt School, we teach the information systems perspective for successful process integration and support as part of the "Master of Management" ("Information Systems" course). In the modules "Digital Innovation" and "Digital Transformation", however, we also convey an innovation-oriented perspective, as we do in the course "Managing Digitalization" of the MBA program of the Frankfurt School. Dr. Eugen Bogodistov from MCI again taught the lecture "Innovation & Operations" in our Kinshasa MBA. Only students from the Democratic Republic of Congo participate in this program.

We also offered the elective course "Business Engineering: How to design a high-performance company" in both the Master's program (M.Sc.) and the Bachelor's program (B.Sc.) to train students in process management and corporate strategy. The PROMET®BPR model serves as the methodological basis for transforming companies into customer-centric, process-oriented enterprises. In the module, students not only learn a working methodology, but also develop sophisticated solutions at the interface between business model and process architecture under high time pressure. This business engineering module, offered as a highly concentrated five-day block course, is only available in Germany at the Frankfurt School.
7. Further activities

In the year under review, we undertook a number of reviews for scientific articles. Guido Perscheid (GP), Prof. Dr. Jürgen Moormann (JM) and Prof. Dr. Daniel Beimborn (DB) were involved. The reviews were done for the "BPM Conference 2021" (JM, GP), the "European Conference on Information Systems 2021" (JM/GP), the "Internationale Tagung Wirtschaftsinformatik 2021" (theme track "Management digitaler Prozesse & Architekturen") (GP), the Poster Slam Session track of the "Tagung des Verbandes der Hochschullehrer für Betriebswirtschaft 2022" (JM) as well as the Information Systems Journal (DB) and the Schmalenbach Journal of Business Research (DB).

In addition, we have served as editors in various capacities. Prof. Dr. Beimborn was Senior Editor of the journal "Data Base for Advances in Information Systems", Associate Editor of the "Journal of the Association of Information Systems", Associate Editor of the journal "BIS/EWirtschaftsinformatik", Minitrack Chair of the "Hawaii International Conference on System Sciences 2021", Associate Editor of the "European Conference on Information Systems 2021" (track "IS Strategy & Governance"), Track Chair of the "International Conference on Information Systems 2021" (track "IT Strategy and Management") and as Co-Program Chair responsible for the overall program of the ACM SIGMIS conference "Computer & People Research".

Prof. Dr. Moormann was Associate Editor of the journal "Knowledge Management & E-Learning: An International Journal" and member of the Editorial Board of the journal "Banking and Information Technology (BIT)". For the "BPM Conference 2021", Prof. Moormann served as a member of the Program Committee of the Management Track as well as Associate Editor for the Track "Management digitaler Prozesse & Architekturen" of the "Internationale Tagung Wirtschaftsinformatik 2021". In the year under review, he was a member of the scientific commissions "Service Management", "Organization" and "Business Informatics" in the VHB.

The annual meeting of the International Bankers Forum (IBF) took place on February 18. The first panel "Battle for the Customer" was moderated by Prof. Dr. Jürgen Moormann. Discussants were Jörg Ambrosius (Executive Vice President, State Street Corp.), Markus Gunter (CEO, N26 Bank) and Dr. Joachim von Schorlemer (Deputy Chairman, ING Deutschland).

The photo shows (from left to right) Dr. Nader Maleki, founder and president of the IBF, Prof. Dr. Jürgen Moormann and Dr. Joachim von Schorlemer.
In the year under review, Prof. Moormann was again asked to contribute to the Bank Blog’s traditional annual outlook. His contribution was entitled “Radikale Digitalisierung: die Chance für den Umbau der Banken” (Moormann 2021a) and also appeared in the e-book of the Bank Blog.

Never before have we received so many press inquiries for interviews, podcasts, etc. as in the year under review. The main topics were payments and the platform economy. Both are currently highly relevant topics with many changes in terms of business models, strategies, processes, IT and personnel.

Interviews and citations by Prof. Dr. Moormann on the topic of payments:


June, 19. and 20, 2021: ARD, participation in the hr-info podcast “Nur Bares ist Wahres – warum es digitales Geld in Deutschland schwer hat“ (video). The topic was the future of cashless payments (including Giropay and the European Payments Initiative).


Aug. 18, 2021: Neue Osnabrücker Zeitung, online article “Negativzinsen: Warum parken Banken ihr Geld überhaupt bei der EZB?“

Aug. 30, 2021: WDR, television program “Markt“, feature “Giropay: Kriegen die deutschen Banken die Kurve beim Handy-Bezahlen?“ (video)

Sept. 6, 2021: tagesschau.de, online article “20 Jahre Euro-Banknoten: Die Lust an knisternden Scheinen“

Oct. 22, 2021: tagesschau.de, online article “Aus für Maestro-Funktion – Naht das Ende der Girocard?“

Nov. 3, 2021: Stuttgarter Zeitung, online article “ING führt Gebühren für Girocards ein“ as well as Nov. 4, 2021 print edition (No. 255, p. 10)


Prof. Moormann was also interviewed several times in the reporting year on the question of what role banks can play in the emerging platform economy:

July 23, 2021: Frankfurter Allgemeine Zeitung, article “Digitale Geschäftsmodelle: Deutsche Banken tun sich schwer in der Plattform-Welt”, print and online


Sept. 8, 2021: Süddeutsche Zeitung, SZ Special, “Was Banken von Amazon lernen können”, print edition, as well as more detailed online version on Sept. 25


Nov. 16, 2021: FinanzBusiness, article will be published in 2022

Dec. 17, 2021: Podcast with Corinna Pommerening, “Ökosysteme und Plattformen: Werden Banken zu Softwareentwicklern, Prof. Dr. Jürgen Moormann?” (podcast)

In addition, a number of practice-oriented articles appeared on the topic (Moormann 2021b): “Banken auf dem Weg in die Plattformwirtschaft” in the magazine Geldinstitute (No. 3) and in slightly modified form under “Welche Rolle spielen Banken in digitalen Ökosystemen?” in IT Finanzmagazin, online (May 11, 2021), as well as under “Welche Rolle spielen Banken in der Plattformwirtschaft?” as Frankfurt School Blog (July 21, 2021).

Prof. Moormann wrote a column entitled “Geschäftsmodellinnovation: Plattform werden – oder sterben” (2021c) for the cooperative magazine BankInformation.
We were also involved in the conference "Finanzdienstleister der nächsten Generation", which was held at the Frankfurt School on June 10, 2021. Prof. Dr. Beimborn served as facilitator of the program. The contributions dealt with the digitalization and transformation of business models in banking.

We were also active as reviewers for doctoral dissertations – Prof. Dr. Beimborn as a second reviewer for a doctorate at the University of Bamberg and Prof. Dr. Moormann as a reviewer in a team of reviewers for a doctorate at the Frankfurt School.

In the year under review, Prof. Dr. Moormann was a member of the supervisory board of KARIS AG, Griesheim.

He also acted as a trusted advisor to the Friedrich Naumann Foundation for Freedom. Alisia Gahabka, Lena Grale, Burak Emir Kosar, Kolja Schildhauer and Sebastian Sydow from the Frankfurt School, Philipp Haubold from the University of Heidelberg, Janis Hafer from the Baden-Württemberg Cooperative State University, Tobias Watermann from the University of St. Gallen, Ricarda Börtzler from the University of Vienna and Phillip Walz from the Universidade Católica Portuguesa were supervised.

8. Publications and presentations

Publications

In terms of the quality of our scientific journal contributions, measured by the VHB ranking "Jourqual3", the year 2021 was by far the most successful in the history of the Process-Lab: One paper in an A-journal, four papers in B-journals and four papers in C-journals are an excellent result. This is especially true for a research-oriented, but at the same time practice-relevant center.

a) Contributions to scientific journals


Leyer, M./Reus, M./Moormann, J. (2021), How satisfied are employees with lean environments?, in: Production Planning & Control, Vol 32, No. 1, pp. 52-62


Ostern N./Perscheid, G./Reelitz, C./Moormann, J. (2021), Keeping pace with the healthcare transformation: a literature review and research agenda for a new decade of health information systems research, in: Electronic Markets, published online on July 17, 2021, in print


b) Contributions to scientific conference proceedings


c) Other contributions


Bogodistov, Y./Moormann, J./Krupskyi, O. (2021), Transformation of Primary Health Care in Times of a Pandemic, MCI Report, Management Center Innsbruck (in Russian and Ukrainian language)


This article also appeared in slightly modified form under "Welche Rolle spielen Banken in digitalen Ökosystemen?" in: IT Finanzmagazin, online, https://www.it-finanzmagazin.de/plattformwirtschaft-banken-digitale-oekosysteme-120286/ (May 11, 2021) as well as under "Welche


Presentations

Considering the Corona limits, we are also very satisfied with the result of the scientific presentations: According to the VHB ranking “Jourqual3”, three presentation papers could be placed for A-conferences and one paper for presentation at a B-level conference. This is a great result for our rather small group.

a) Presentations at scientific conferences


b) Presentations and facilitations at practice-oriented events


Moormann, J. „Digitale Ökosysteme in der Plattformwirtschaft – zur Rolle der Banken“, Virtual Frankfurt School journalist session with Professor Jürgen Moormann, Frankfurt School of Finance & Management, Frankfurt/M., 22.7.2021

Moormann, J. „Strategieentwicklung in Non-Profit-Organisationen“, Kryvyi Rih City Administration, Health Care Management Department, Kryvyi Rih, Ukraine, 11.10.2021

9. Supervised theses at the Frankfurt School

Initial review: Prof. Dr. Jürgen Moormann

Bachelor’s theses

Psychological Distance and Means of Payment: Intercultural Influences Measured by Implicit Association Tests in Germany and Singapore (Schmidt, Jonas)

Chancen und Herausforderungen bei der Implementierung agiler Methoden in etablierten Unternehmen - Wie lässt sich Agilität in etablierten Unternehmen messen? (Kunz, Rebecca Alexandra)

Analysis of Business Models of Banks, Fintechs and Bigtechs in credit lending – opportunities for cooperation (Stollenwerk, Hendrik)

Analysis of use cases for chatbots in internal bank processes (Bocek, Marco)

Investigating the potential of Blockchain in the renewable energy sector: an analysis, using Chilean electric system as an example (Mascareñas Fernández, Sara)

Investigation of traditional payment methods versus payment innovations on the European e-commerce market (Kriesel, Jonas)

Development of a concept for integrating banking into social media platforms (Klockmann, Lars)

Analyse von Wertpapier-Transaktionsdaten und die Verbesserung des kaskadierenden Regelsystems (Lange, Jonas)

Analyse des Einsatzes modularer Prozess-Outsourcing-Plattformen am Beispiel der Baufinanzierung (Schäfer, Lukas)

Analyse von Fintech-Geschäftsmodellen im Kreditgeschäft (Zierau, Ferdinand Ulrich)

Introduction of the Digital Euro: An Assessment of its Requirements, Benefits and Challenges (Gregel, Leonie)

Buy Now - Pay Later: Evolution of the E-Payment Methods in Germany (Warnecke-Brühl, Mona)

Request to Pay - eine Analyse im Kontext des digitalen Zahlungsverkehrs (Klein, Marc Christopher)

Intelligent Money im vernetzten Fahrzeug: Konzepterstellung und Entwicklung von Anwendungsszenarien (Marinoni, Alexander und Hartmann, Christoph)

Master’s theses

Analysis of aspects for a successful scaling of a multi-sided platform in the financial service industry (Leßmann, Jonathan)

Analyse von Nutzungsmöglichkeiten Künstlicher Intelligenz zur Identifikation von Potenzialkunden am Beispiel des Firmenkundengeschäfts (Graner, Sabrina)

Cross-industry analysis of digital processes in small companies (Wohlfahrt, Franz Christoph)
Development towards a Smartphone App to Fight Tuberculosis Using a Gamification Approach (Wortberg, Alexander)

Incumbent Banks and Open Banking - Development of Strategies to Position Incumbent Banks in Digital Ecosystems (Weckelmann, Philipp)

Integration of Incumbent Banks in the Design of FinTech Services - A Critical Analysis of IT Architecture Concepts (Winter, Dennis)

Analysis of behavioural biases in the risk profiling of robo-advisors (Schuler, Nicolai)

A Cross-Cultural Analysis of Digital Transformation (Eid, Mostafa)

Learning how to change: The evolution of the digital innovation labs (Karel, Niklas)

Setting the Course for Digital Trust - A Conceptualization of How Trust Needs to Be Defined in the Dynamic Course of Digitalization (Sokoll, Anna Maria)

Tokenization of assets in the face of the web 3.0 - towards the development of a taxonomy for tokenized assets (Davuluri, Sai Kumar)

Development of centralized and decentralized governance in platform-based business models (Schmeinck, Sören)

Design of a modular process model based on RPA and machine learning using the example of the money laundering process (Kublik, Pierre)

**Doctoral dissertation**

Analysis of Customer Processes as a Foundation for Customer-Centric Business Process Management (Palvölgyi, Elisabeth), independent expert opinion in the examiner team

**Initial review: Prof. Dr. Daniel Beimborn**

**Master's theses**

Agile Maturity Model Assessment of Commerzbank's Delivery Organization (Fischer, Niklas)

Digitalization of Work and (Employee) Leadership - An evaluation of leadership characteristics beneficial for a successful transition to a remote work setting (Siebertz, Paulina)

Decision Criteria for a Multi-Cloud Strategy (Kaldemorgen, Nina)

An empirical study on the impact and mitigation of cognitive biases in AI-based decision support systems (Pilz, Franziska)

Zero to Business Model - Corporate Company Builders as a new form of start-up support (Jäger, Hendrik)

Impact of Digital Maturity in Pharmaceuticals and Life Sciences: empirical study on assessing KPIs and developing a measurement framework (Filipovic, David)

Pricing for a B2B Platform: Determining the Optimal Price for Digital out of Home (DOOH) (Cunningham, Lynn)
Quantitative assessment of digital innovation - The interaction between novelty, intensity, and customer participation across segments in the mobile applications market: An empirical analysis (Bedoian, David)

Blockchain in Sustainable Supply Chains – Empirical Study and Assessment of Barriers and Solutions (Mohan, Archana)

10. Our graduates

Since the ProcessLab was founded, we have accompanied nine young people on their path to doctorate. One of our doctoral students has continued with us on the path of the postdoc and works as a university professor today. Two other employees joined us as postdocs and are now also working at universities.

In the following, we give an overview of our graduates and their current fields of activity:

Dr. Andreas Burger, Partner, Forensic and Financial Crime Advisor, Deloitte GmbH Wirtschaftsprüfungsgesellschaft

Dr. René Börner, Product Owner Chatbots, Degussa Bank AG

Dr. Corinna Grau, Head of Claims Processes and Development, Württembergische Versicherung AG

Dr. Diana Heckl, Head of Contract Management, Volkswagen Financial Services AG

Dr. Matthias Hilgert, Chief Transformation Officer, Basler Versicherungen Deutschland

Dr. Michael Leyer (doctorate and postdoc, see below)

Dr. Elisabeth Palvölgyi, Customer Journey Expert, Tribe „Digital Leadership“, ING Deutschland

Dr. Francesco Pisani, Manager, Strategy and Transactions, EY Deutschland

Dr. Anne Schaefer, Student of Classical Archaeology, Goethe University Frankfurt

With Friedrich Holotiuk and Guido Perscheid, two further aspirants are in the process of obtaining their doctorates. Dr. Ann-Kathrin Hirzel, Senior Product Manager, C24 Bank GmbH, spent two years with us and completed her doctorate at the University of Rostock.

In addition, three postdocs have successfully shaped their time at ProcessLab and are now in professorial position:

Prof. Dr. Michael Leyer, Professor of Service Operations and President of the Council, University of Rostock

Dr. Eugen Bogodistov, Professor of Project and Process Management, Management Center Innsbruck, Austria

Ass. Prof. Dr. Nadine Ostern, Professorship for Digital Technologies and Process Management, Bern University of Applied Sciences, Switzerland
11. Our sponsors

We are very proud of our sponsors and the close and trusting cooperation. Our thanks go to the executives in the respective companies who make cooperation with the Lab possible, to the respective sponsor representatives, and to all employees with whom we had the privilege of working together on research projects in the year under review.

COMMERZBANK

As one of the largest credit institutions in Germany, Commerzbank is a strong supporter of the ProcessLab. Since the Lab was founded, the bank has supported us, and in return we provide impetus for a variety of topics. In the area of Operational Excellence in particular, we have interesting overlaps that have led to several research projects. Currently, of course, the Digital Campus is a part of Commerzbank that is of extraordinary interest to us, since topics such as digitalization, process management, use of technology and operations come together here.

LOANCOS

Since the beginning of 2020, the LOANCOS Group has been a sponsor of the ProcessLab. The group of companies emerged from the consolidation of several loan servicing companies, including Hypotheken Management GmbH and its subsidiaries. LOANCOS is Germany’s largest service provider for the processing of mortgage loans in the context of outsourcing for third parties. The range of activities related to loan processing and the question of how new ways can be found for loan investments make the company an exciting partner for the ProcessLab.

UMS

UMS is a consulting firm with which we have been working for around 15 years. The focus of the company is on "strategy implementation consulting", i.e., support from strategy development to the concrete implementation of measures. This is done across industries and worldwide - around the topics of leadership, innovation, digitalization, and process optimization. We very much like the approach that employees learn to design and manage change processes independently through collaboration with UM.
Our sincere thanks go to all those who have contributed to the success of 2021 - whether as sponsors, as co-authors of publications, as contributors to teaching, or through participation in ProcessLab events!

**Picture credits:**

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