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Why do Digital Platforms succeed or fail? - A Literature Review on Success and Failure Factors

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Completed Research

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Abstract

In the course of digitalization, digital platforms are unleashing their full disruptive potential and are already dominating the first industries (e.g., hotel industry). As a result of this success, more and more companies want to build their own platforms and participate in the success. However, building and operating a digital platform involves multiple challenges and most of such ambitions fail. Since most digital platforms fail, strategic leadership of digital platforms must consider both success factors and reasons for platform failure. For this purpose, we conducted a systematic literature analysis and identified 24 success as well as failure factors in 9 dimensions. From a scientific perspective, the article provides a structured analysis of success and failure factors of digital platforms, which previously did not exist in literature. Practitioners can use the resulting knowledge base to successfully manage platform activities and avoid pitfalls.

Keywords

Digital Platform, Multi-sided Market, Two-sided Market, Success Factor, Failure Factor

Introduction

Platforms are not per se a new concept. Shopping malls, for example, have connected consumers and traders for decades (Alstyne et al. 2016). But in recent years, the platform model has been experiencing a renaissance due to digital technologies, which provide enormous scaling opportunities at almost zero marginal costs (Linz et al. 2021). Digital platforms nowadays orchestrate an ecosystem of supply and demand facilitated by digital technologies such as cloud computing or big data analytics (Hein et al. 2020). Apparent examples of the disruptive nature of digital platforms are the hotel (Airbnb) and taxi industries (uber) (Cusumano et al. 2019). These examples clearly show the conceptual differences between platforms and digital platforms. Hence, the rise of the digital platform economy will reorganize industries and shift power towards platform owners (Kenney and Zysman 2016).

Comprehensibly, many incumbent firms strive to exploit the economic opportunities of digital platforms. When entering the platform economy, they can choose two strategic paths: joining an existing digital platform or building a new one (Hein et al. 2020; Drewel et al. 2020). Both come with associated risks. Especially the drive to become a platform owner/operator can be tempting. Although the failure of digital platforms is difficult to measure, the fact that 90% of all start-ups fail or that 70% of all failed technology companies are internet companies gives a good impression of the low chances of success in building and

operating digital platforms (Morvan et al. 2016). Since most digital platforms fail, the strategic leadership of digital platforms must consider both success factors and reasons for platform failure. Reflecting on this statement, the research questions 1) *"Why do digital platforms succeed?"* and 2) *"Why do digital platforms fail?"* intrude.

The paper unfolds as follows: Next, the theoretical background of digital platforms is explained, and our theoretical lens of success factors is introduced. Then the systematic literature review is justified as the research method. The literature review results are presented in the following and later discussed. The paper closes with a brief conclusion.

Theoretical Background

The understanding of the platform concept relevant for this analysis goes back to the work of Rochet and Tirole (2003). They first described the interrelationships of two-sided markets in 2003 in the article "Platform Competition in Two-Sided Markets" (Rochet and Tirole 2003). Two-sided markets are characterized by allowing direct interactions between two sides of a market. The concept of a two-sided market can be extended by including additional market sides. In such a case, a two-sided market becomes a multi-sided market. Companies that orchestrate these two-sided or multi-sided markets are called platform companies (Evans and Schmalensee 2016). Their value creation is characterized by coordinating direct interactions between two or more sides of a market. The participating market sides pay them (Baums et al. 2015). The distinctive feature of two-sided or multi-sided markets is that the price paid by one side of the market opens the possibility of subsidizing other sides of the market (Rochet and Tirole 2006). A pricing strategy below the costs incurred is not sustainable for traditional business models. In contrast, companies operating in multi-sided markets can increase overall economic value by subsidizing one side of the market (Reillier and Reillier 2017). Evans and Schmalensee (2016) add that such platforms can be operated physically and digitally. Their value creation is characterized by coordinating direct interactions between two or more participant sides of a market. With the breakthrough of modern information and communication technologies, digital platforms can scale fast at a low marginal cost and driven by network effects. Positive network effects enable digital platforms to increase their benefits exponentially with each new platform user (Alstyne et al. 2016; Choudary 2015). Such digital platforms are the subject of this analysis. For our research, we adopt the definition of Parker et al. (2017). A digital platform enables value-adding interactions between producers and customers. The platform provides the platform participants with digital infrastructure and determines the framework conditions and rules under which the exchange occurs (Parker et al. 2017). The difference between digital platforms and traditional businesses is that digital platforms focus on enabling value-creating interactions between providers and consumers (Alstyne et al. 2016). In contrast, in a conventional value creation setting, the activities and processes of a company are divided into a linear sequence. Raw materials are first purchased and then transformed in internal processes into value-added goods, which are sold to customers in the end (Porter 1985; Parker et al. 2017).

Success factors (often also called critical success factors or key success factors) were first introduced into management literature by John Rockhart (1979). Success factors consolidate a large amount of information from the business environment to the most essential to be used as target variables for strategic management (Rockhart 1979). Rockhart and Bullen (1981) define critical success factors as "the limited number of areas in which satisfactory results ensure successful competitive performance" for a company. Accordingly, essential success factors are key areas of a company that must be successful in the long term.

To be successful, companies must consider not only the reasons for success but also factors for failure. Failure factors have negative consequences on the business of a company, and if not considered, these factors can lead to the collapse of a company. Fault factors can lead to partial misdevelopment or complete failure of a company (Gargeya and Brady 2005). In the context of the presented analysis, success and failure factors are factors that must be considered in the management of a digital platform to be successful in the long term.

There are several meta-analyses on success factors in the existing scientific literature and only a few analyses on failure factors. A systematic analysis of both factors does not exist in the scientific literature so far.

Research Method

For structuring the existing knowledge base, we followed the recommendations of Webster and Watson (2002) for a systematic literature review. In this review, we looked for publications that focus on platforms' success and failure factors. The structured literature review was iteratively conducted starting by applying the search string in the IS research databases Scopus, AISeL, and IEEEXplore. The search string in all examined databases was as follows: (platform* OR "two-sided market*" OR "multi-sided market*" OR "multisided market*") AND ("success factor*" OR "failure factor*"). We identified 906 articles utilizing the search string. 102 duplicates, non-peer-reviewed, and non-English written articles were discarded screening the identified papers. Then, the abstracts of all resulting publications were read and reviewed, leading us to 64 relevant papers. Through backward and forward searches, we identified nine additional relevant papers. In Figure 1, the scanning and selection process is illustrated. Next, we read the full text and started coding based on the Grounded Theory approach (Glaser and Strauss 1967). Grounded Theory is a heavily used approach in IS research (see Wiesche et al. 2017; Birks et al. 2008; or Urquhart and Fernandez 2006). Following Strauss and Corbin (1990), the author team refined the coding process to develop a consistent coding framework. Starting with 151 different codes in the first iteration, the codes (each describes one success or failure factor in iteration one) were synthesized into more general terms for the second-order coding. This iteration yielded 24 second-order codes. In a third iteration, we clustered the 24 second order codes into nine dimensions (see Figure 2).

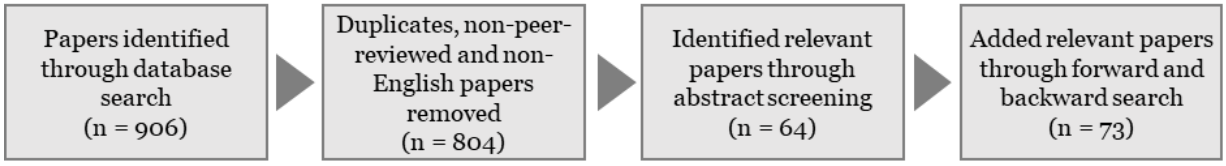

Figure 1: Scanning and selection process

Findings

In the relevant literature, 151 individual success and failure factors were identified. After paraphrasing the factors, we identified 24 factors. Analyzing and clustering them lead to nine dimensions that structure the success and failure factors. The dimensions and related factors are shown in Figure 2.

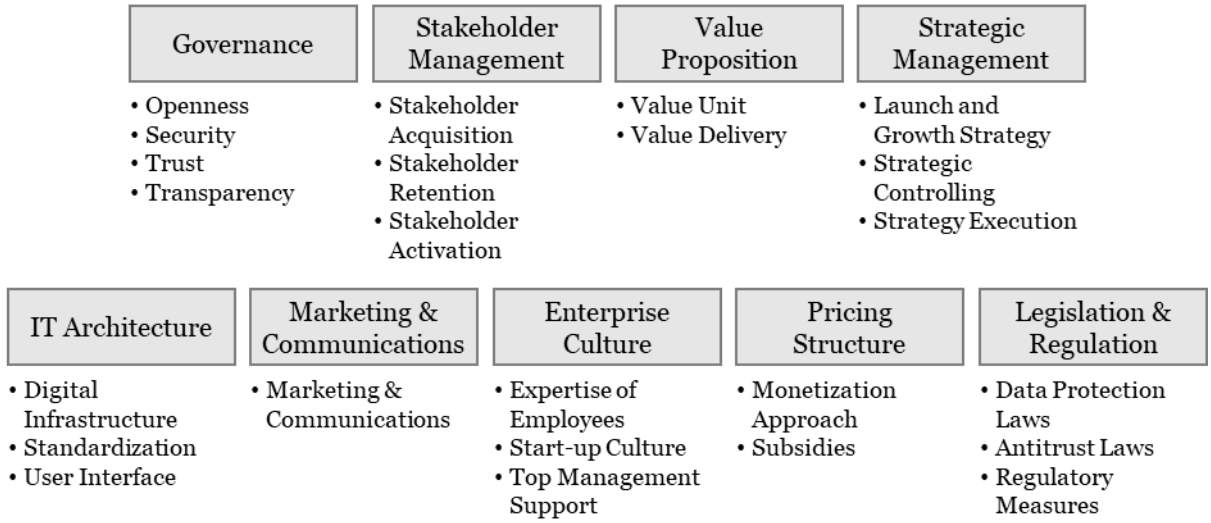

Figure 2. Dimensions and related factors for digital platforms

The factors in one dimension can occur both as a success factor and as a failure factor. Table 1 briefly describes the dimensions and indicates how frequently the factors occur as success or failure factors in the literature. Besides the dimension name, the table also features a brief description. This analysis shows that

the frequency of a dimension as a success or failure factor varies. The success factors are dominated by the dimensions *Governance*, S*takeholder Management* and V*alue Proposition*, which together account for 62% of all mentions of success factors. In addition to *Stakeholder Management*, *Strategic Management* and *IT Architecture* are the three most frequently mentioned dimensions for platform failure. They account for a total of 57% of all mentions among the failure factors. In addition, the results show that the factor in the dimension *Marketing & Communication* only appear as success factor. In the following, the dimensions are explained in detail. Selected examples are used to explain how dimensions can influence the failure or success of a digital platform.

No.	Dimension	S	S-%	F	F-%	Description
1	Governance	26	23%	6	16%	Governance comprises openness, trust, security, and transparency and determines the rules and conditions for platform use.
2	Stakeholder Management	23	20%	7	19%	Stakeholder management aims to acquire, activate, and retain stakeholders for platform use.
3	Value Proposition	22	19%	5	13%	The value proposition includes the problem that will be solved for the user and how that value will be delivered to the user.
4	Strategic Management	15	13%	7	19%	Strategic management includes the drafting of a launch and growth strategy, its strategic controlling, and general strategic activities.
5	IT Architecture	9	8%	7	19%	The IT architecture describes the digital infrastructure. Decisive factors are the degree of standardization of the platform technologies and the user interface.
6	Marketing & Communication	7	6%	-	0%	Marketing & Communication describes the use of available channels to increase awareness of the platform and its benefits.
7	Enterprise Culture	7	6%	1	3%	The employees' digital expertise, corporate culture, and top management support influence the success of a digital platform.
8	Pricing Structure	3	3%	3	8%	Digital platforms must decide which users they want to charge and which to subsidize. They have to balance the different interests of users and their profit motives. One issue is the monetization approach of the platform.
9	Legislation & Regulation	2	2%	1	3%	Legislation and regulatory measures can significantly impact the design and operation of a digital platform in terms of data protection, antitrust laws, and regulatory measures.
	Sum hits	**114**	**100%**	**37**	**100%**	

Table 1. Success and Failure Dimensions of Digital Platforms

Governance: Platform governance is a comprehensive dimension and consists of the factors *openness, security, trust,* and *transparency*. *Openness* defines which users are allowed to participate in the platform and under which conditions and rights (Pidun et al. 2021; Kaselow et al. 2020). Another factor is *trust*, which a digital platform must establish. This requires, for example, a reliable payment system including refunds, cancellation policies, and other protection rules. Other trust-building measures include verifying platform users before they are allowed to use the platform (Maciaszek et al. 2017). Consistent and open availability of information (e.g., prices) increases *transparency* on a digital platform and promotes platform

adoption. In addition, *security* is a central factor of platform governance, which can be designed, for example, through robust platform access or the encryption of data (Schwind et al. 2011). Successful platform governance enables a high quality of interaction and a high perceived network value by starting with a reduced level of openness, which is gradually increased once the platform is successfully established (Pidun et al. 2021).

Stakeholder Management: This dimension comprises measures for the *acquisition*, *retention*, and *activation of stakeholders* of a digital platform. For the long-term success of a digital platform, a critical number of users must be convinced to use the platform. High user numbers enable a digital platform to assume a market-dominating position through network effects and economies of scale in terms of costs and data (Pidun et al. 2021). But the sheer number of platform users is not always critical to success. A small number of users can also be of decisive importance if they make an exceptional contribution to the platform and, for example, contribute most of the offerings on the platform (Rossmannek 2021). Therefore, user retention and activation are critical to success in addition to user acquisition. To this end, a digital platform can introduce incentives that are aimed at platform entry and contribute high-quality offers to the platform as well as long-term platform use (Ranico and Cennamo 2020). Successful platforms that have a small user group can reduce fluctuation by means of fixed contact persons and personal communication (Rossmannek 2021).

Value Proposition: The *value unit* and the *value unit delivery* - often referred to as key interaction - are the reason why users use a digital platform (Rohn et al. 2021; Choudary 2015). To provide an attractive key interaction, a digital platform must solve a sufficiently large problem for the user. This can be, for example, the significant reduction of transaction costs. The value units exchanged can include intangible or tangible goods. Information is exchanged for the provision of this value unit, and in return for the exchange of the value unit, the receiver transmits a return payment. If the key interaction of a digital platform does not address a significant problem, users will stay away from the platform, and the platform will fail (Pidun et al. 2020; Shneor and Vik 2020).

Strategic Management: Good strategic management is required to design and operate a digital platform successfully. As part of the *launch and growth strategy*, it must be determined in which markets the platform business will be established or expanded (Kaselow et al. 2020; Saini and Aqrawi 2015). The available resources must be orchestrated: Certain platform participants may receive subsidies, resources need to be allocated for scaling, and strategic partnerships must be established (Sethi et al. 2021). Key performance indicators (KPIs) allow platform management to monitor whether and how well goals are achieved and hence, allow for the *strategic controlling* of the platform. From these, actions can be derived to ensure sustainable platform operations (Fotrousi et al. 2014). Poor *strategy execution* can lead to increased expenses due to necessary changes of course. In the long run or in the event of serious errors, poor strategic management can fail a digital platform (Bläsi 2019). An example of successful strategic management provides Uber. Uber's launch was limited to San Francisco. Once the platform was established there with a stable user group, the next step was to promote the growth of a large network (Stummer et al. 2018).

IT Architecture: The success of a digital platform needs a robust *digital infrastructure* (Razi et al. 2004). This requires *standardization*, which reduces the complexity and vulnerability of a digital platform and contributes to increased user acceptance (Gannamaneni et al. 2015). Specifically, *standardized interfaces* enable platform providers to offer complementary services on a platform with little effort. This increases the range of services and, as a result, the attractiveness of a digital platform (Winter et al. 2018). The modularity of different platform components reduces the technical complexity of the platform infrastructure since no extensive integration efforts are required (Kaselow et al. 2020; Sethi et al. 2021). In addition, *standardization* of processes on the platform can improve the transaction process of users, for example, by providing standardized contracts and reducing the contract risks of users (Schwind et al. 2011). In addition to the technical standardization of the platform architecture, a clear and intuitive *user interface* design of the digital platform is relevant for success (Kaselow et al. 2020).

Marketing & Communications: Effective *marketing and communications* work can lead to increased awareness of the platform and encourage more users to use the platform (Kaselow et al. 2020). The task of

marketing is to communicate the benefits of platform use and encourage users to use the platform (Maciaszek et al. 2017). A good design of this dimension can strengthen the relationship between users and the platform and thereby increase user loyalty (Saini and Aqrawi 2015).

Enterprise Culture: *Expertise of employees* for digital transformation, as well as a *startup culture* within a platform company, can advance success. Since digital platforms must be able to act and react in a dynamic market environment, *short decision-making paths* are also necessary for successful operation (Rohn et al. 2021). If a digital platform is designed from within an established industrial company, the *support of top management* is also a key success factor (Lalita et al. 2021). One measure for the successful development of a digital platform can therefore be the transfer of the platform business from the parent company to an independent spin-off (Rohn et al. 2021). An example of this approach is the digital B2B platform Adamos, which emerged in 2017 from the companies DMG Mori, Dürr, Software AG, Zeiss and ASM PT (Adamos, 2017).

Pricing Structure: The dimension *pricing structure* defines which service is charged to which platform user. The platform operator has to balance several targets: Increasing the platform ecosystem's value, profit-sharing with the platform users who contribute to the platform and retaining their profit share (Pidun et al. 2020). An effective pricing structure can contribute significantly to platform success and is characterized by the implemented *monetization approach*. In addition, platforms can *subsidize* the side of a market that is less willing to use the platform to maximize the platform value for the other side. However, if the pricing structure is wrong on one side of the market, it can equally lead to the failure of the whole platform (Yoffie et al. 2019). Ebay's established pricing structure with transaction fees was not accepted by Chinese users and led to ebay's withdrawal from China in 2006 (Pidun et al. 2020).

Legislation & Regulation: Consideration of a digital platform's legal and regulatory environment is critical to success (Briel and Recker 2017). The local legislative environment can have an impact on platform success. For example, strict *data protection laws* can complicate platform setup and operation. In particular, the differences in national data protection laws are an obstacle to competition on international markets and can lead to penalties or failure of digital platforms (Haucap et al. 2020). An example is Google, which had to pay a multi-million fine for violating the General Data Protection Regulation in Europe (Hanke et al. 2019). Also, compliance with *antitrust laws* may become relevant. To operate a platform through which competitors sell goods and services, antitrust regulations must be considered (Haucap et al. 2020). Furthermore, a very dominant market position or quasi-monopoly can lead to *regulatory measures* on the regulatory authorities' part to limit this dominance.

Discussion and Conclusion

The paper at hand investigates the relevant literature on digital platforms to provide a meta-view on digital platforms' success and failure factors. The results show that 24 factors are crucial, which can be clustered into nine dimensions.

Interpretation of the results

Looking at the findings in general, it appears that most of the academic literature to date examines the success of digital platforms. Three-quarters of the identified factors are success factors. Accordingly, the analysis of why digital platforms fail seems underrepresented in literature as of now. Furthermore, the great disparity between the number of mentions of the dimensions suggests that not all dimensions have the same relevance. *Governance*, *Stakeholder Management*, *Value Proposition* and *Strategic Management* appear to be important dimensions for success and failure factors. The dimensions *IT Architecture* and *Pricing Structure* appear predominantly in the failure factors. The dimensions *Corporate Culture* and *Marketing & Communication*, on the other hand, appear almost exclusively and only to a small extent as success factors. *Legislation & Regulation* is almost not mentioned at all and is of lesser importance.

Contributions

The paper at hand contributes to the theory and practice of digital platforms alike. From a theoretical perspective, the article delivers a structured analysis on success and failure factors for digital platforms, which previously did not exist in literature. Hence, we created a substantial knowledge base for researchers to build on. Furthermore, in structuring the knowledge base we show a preliminary framework as a guiding principle. For practitioners, our results deliver insights to reflect on managing their digital platforms. The findings help them to build up strengths and to avoid pitfalls. Furthermore, the dimensions and factors may be viewed as requirements for designing a digital platform.

Limitations

Our analysis is subject to two kinds of limitations: methodological and contextual ones. Methodological limitations stem from our research design and result from our search string and database choice. Consequently, we might not have found all the relevant literature. However, we found a significant number of high-quality articles and performed a forward and backward search. In addition, it can be misleading to infer the importance of a dimension from the number of times that dimension is mentioned. If it is difficult to collect data for a dimension, that dimension rarely appears in the literature, but it is not necessarily irrelevant. Contextual limitations result from the heterogeneity of the investigated papers. Digital platforms can shape an entire company or emerge from established companies (e.g., industrial companies) as a further business unit or spin-off. Our analysis does not distinguish between different industries, entrepreneurial contexts, starting points, or types of digital platforms. However, such distinctions would impact the relevance of the factors identified. For industrial companies that operate a digital platform, the prerequisites for success are different from those for pure digital platform companies. For example, established industrial companies already have a customer base to win over directly for platform use.

Future Research

Based on our research, we propose six directions for future research. First, we offer to investigate the failure of digital platforms further. Our analysis shows that this kind of research is underrepresented compared to the success factors. However, many platforms fail in the early stages of their lives, so knowing about failure factors in detail might help platform leaders avoid those pitfalls. Second, the analysis shows that most factors are only investigated on the surface. Future research should focus on the factors individually and generate more profound insights into their mechanisms. Third, most of the studies from our research were qualitative. Hence, we propose that the researcher should employ quantitative methods to deepen the understanding of platform success and failure. E.g., they should investigate the relevance of the factors and dimensions in practice. Forth, the dimensions we found focus on a rather strategic view on digital platforms. Future research might find valuable insights analyzing success and failure factors for the operational management of digital platforms. As fifth research direction, we propose a more detailed analysis depending on the type of platforms (e.g., keystone-driven, internal, ecosystem etc.). We see promising insights, as we expect the results of the analysis to differ accordingly to the platform types. Our final suggestion for future research is to analyze relationships between the individual factors, which we suspect are subject to varying dependencies.

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REFERENCES

Adamos 2017. “Weltmarktführer bündeln Kräfte in ADAMOS – Neue Allianz zwischen Maschinenbau und IT für Industrie 4.0,” Darmstadt.

Alstyne, M. W., Parker, G. G., and Choudary, S. P. 2016. “Pipelines, platforms and the new rules of strategy,” *Harvard Business Review*, (94:4), pp. 54–62.

Baums, A., Schlössler, M., and Scott, B. 2015. "Kompendium Industrie 4.0: Wie digitale Plattformen die Wirtschaft verändern und wie die Politik gestalten kann," Berlin: Kompendium Digitale Standortpolitik.

Birks, M., Chapman, Y., & Francis, K. 2008. "Memoing in qualitative research," *Journal of Research in Nursing* (13), pp. 68–75.

Bläsi C. 2019. "Associations in the creative industries as operators of digital platforms: Failure factors, with an example from the german book industry in the focus," in *Digital Platforms and Cultural Industries*, Bouquillion, P., and Moreau, F. (eds.), Bruxelles, Peter Lang, pp. 117-132.

Choudary, S.P. 2015. "Platform scale: How an emerging business model helps start-ups build large empires with minimum investment," Boston: Platform Thinking Labs Pte. Ltd.

Cusumano, M.A., Gawer, A., and Yoffie, D.B. 2019. "The business of platforms - Strategy in the age of digital competition, innovation, and power," New York: HarperCollins Publishers.

Drewel, M., Özcan, L., Koldewey, C., and Gausemeier, J. 2021. "Pattern-based development of digital platforms," *Creativity and Innovation Management*, (30:2), pp. 412-430.

Evans, D. S., and Schmalensee, R. 2016. "Matchmakers: The new economies of Multisided platforms," Boston: Harvard Business Review Press.

Fotrousi, F., Fricker, S.A., Fiedler, M., and Le-Gall, F. 2014. "KPIs for software ecosystems: A systematic mapping study," in *Software Business – Towards Continuous Value Delivery (182)*, C. Lassenius and K. Smolander (eds.), Paphos: Springer, pp. 194-211.

Gannamaneni, A., Ondrus, J., and Lyytinen, K. 2015. "A post-failure analysis of mobile payment platforms," in *Proceedings of the 48th Hawaii International Conference on System Sciences (HICSS)*, Hawaii, USA, pp. 1159-1168.

Gargeya, V. B., and Brady, C. 2005. "Success and failure factors of adopting SAP in ERP system implementation," *Business Process Management Journal* (11:5), pp. 501-516.

Glaser, B., and Strauss, A. 1967. "The discovery of grounded theory: Strategies for qualitative research," New York: Aldine de Gruyter.

Hanke, T., Kerkmann, C., and Neuerer D. 2019. "Google muss Rekordstrafe wegen Datenschutzverstößen in Europa zahlen," Retrieved 25.04.2022 from https://www.handelsblatt.com/unternehmen/it-medien/dsgvo-google-muss-rekordstrafe-wegen-datenschutzverstoessen-in-europa-zahlen/23892332.html

Haucap, J., Kehder, C., and Loebert, I. 2020. "B2B-Plattformen in Nordrhein-Westfalen: Potenziale, Hemmnisse und Handlungsoptionen - Ein Gutachten im Auftrag des Ministeriums für Wirtschaft, Innovation, Digitalisierung und Energie des Landes Nordrhein-Westfalen," Düsseldorf: DICE Consult.

Hein, A., Schreieck, M., Riasanow, T., Setzke, D.S., Wiesche, M., Böhm, M., and Krcmar, H. 2020. "Digital Platform Ecosystems," *Electronic Markets* (30:1), pp. 87-98.

Kaselow, A., Petrik, D., and Feja, S. 2020. "Exploring the success factors for a launch of an algorithmic consulting platform," in *Agile Processes in Software Engineering and Extreme Programming – Workshops* (396), M. Paasivaara and P. Kruchten (eds.), Copenhagen: Springer, pp. 58-66.

Kenney, M., and Zysman, J. 2016. "The rise of the platform economy," *Issues in science and technology* (32:3), pp. 61.

Lalita, P.J., Nurcahyo, R., and Gabriel, D.S. 2021. "Identification of success factor for B2B E-commerce in Indonesia," in *Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management (IEOM),* pp. 547-556.

Linz, C., Müller-Stewens, G., and Zimmermann, A. 2021. "Radical Business Model Transformation: How Leading Organizations Have Successfully Adapted to Disruption," London: Kogan Page, 2nd Edition.

Maciaszek, L., Gryncewicz, W., and Kutera, R. 2017. "Integrated service E-marketplace for independent and assisted living – business and software engineering challenges," in *Business Modeling and Software Design (275)*, B. Shishkov (ed.) Rhodes: Springer, pp. 221-231.

Morvan, L., Hintermann, F., and Vazirani, M. 2016. "Five ways to win with digital platforms," Dublin:Accenture Research.

Panico, C., and Cennamo, C. 2020. "User preferences and strategic interactions in platform ecosystems," *Strategic Management Journal*, pp. 1-23.

Parker, G., van Alstyne, M., and Choudary, S.P. 2017. "Platform revolution: How networked markets are transforming the economy and how to make them work for you," New York, London: W.W. Norton & Company.

Pidun, U., Reeves, M., and Schüssler, M. 2020. "Why Do Most Business Ecosystems Fail?," BCG Henderson Institute.

Porter, M. E. 1985. "Competitive Advantage – Creating and Sustaining Superior Performance," New York: The Free Press.

Razi, M.A., Tarn, M., and Siddiqui, F.A. 2004. "Exploring the failure and success of DotComs," *Information Management & Computer Security* (12:3), pp. 228-244.

Reillier, L. C., and Reillier, B. 2017. „Platform strategy: How to unlock the power of communities and networks to grow your business," London: Routledge.

Rochet, J.-C., and Tirole, J. 2003. "Platform competition in two-sided markets," *Journal of the European Economic Association* (1:4), pp. 990–1029.

Rochet, J.-C., and Tirole, J. 2006. "Two-Sided Markets: A Progress Report," *The RAND Journal of Economics* (37:3), pp. 645-667.

Rockhart, J.F. 1979. "Chief Executives Define Their Own Data Needs," *Harvard Business Review* (57:2).

Rockhart, J.F., and Bullen, C. V. 1981. "A primer on critical success factors (Working Paper No. 69)," Cambridge, Massachusetts: Center for Information Systems Research.

Rohn, D., Bican, P.M., Brem, A., Kraus, S., and Clauss, T. 2021. "Digital platform-based business models – An exploration of critical success factors," *Journal of Engineering and Technology Management* (60), pp. 1-14.

Rossmannek, O. 2021. "When do service suppliers leave their platform? —The role of friendships," *Review of Managerial Science*.

Saini, P.D., and Aqrawi, A.A. 2015. "Critical Success Factors of exploration and production software ecosystems," in *Proceedings of the 1st Mediterranean Gas and Oil International Conference (MedGO)*, Mechref, Lebanon.

Schwind, M., Stenger, A., and Aponte, S. 2011. "Electronic Transportation Marketplaces: How Can Green-IS Help to Promote Sustainable Logistics?," *Proceedings of the 44th Hawaii International Conference on System Sciences (HICSS)*, Hawaii, USA, pp. 1-8.

Sethi, K., Biswas, B., and Balodi, K.C. 2021. "Mobilizing B2B Electronic Marketplace: An Exploratory Study of Critical Success Factors among Indian Start-ups," *Global Business Review*, pp. 1-17.

Shneor R., and Vik A.A. 2020. "Crowdfunding success: a systematic literature review 2010–2017," *Baltic Journal of Management* (15:2), pp. 149-182.

Strauss, A., and Corbin, J. 1990. "Basics of qualitative research: Grounded theory procedures and techniques," *Thousand Oaks*, CA, US: Sage Publications.

Stummer, C., Kundisch, D., and Decker, R. 2018. "Platform Launch Strategies," in *Business & Information Systems Engineering* (60:2), Wiesbaden: Springer, pp. 167–173.

Urquhart, C., and Fernandez, W. (2006). "Grounded Theory Method: The Researcher as Blank Slate and Other Myths," *ICIS Proceedings* (31).

von Briel, F., and Recker, J. 2017. "Lessons from a failed implementation of an online open innovation community in an innovative organization," *MIS Quarterly Executive* (16:1), pp. 35-46.

Webster, J., and Watson, R. T. 2002. "Analyzing the Past to Prepare for the Future: Writing a Literature Review, " *MIS Quarterly: Management Information Systems* (26:2), pp. xiii-xxiii.

Wiesche, M., Jurisch, M., Yetton, P. W., and Krcmar, H. 2017. "Grounded Theory Methodology in Information Systems Research," *MIS Quarterly* (41:3), pp. 685–701.

Winter, J., Battisti, S., Burström, T., and Luukkainen S. 2018. "Exploring the Success Factors of Mobile Business Ecosystems," *International Journal of Innovation and Technology Management* (15:3), pp. 1-23.

Yoffie, D.B., Gawer, A., and Cusumano, M.A. 2019. "A Study of More Than 250 Platforms Reveals Why Most Fail," Retrieved 25.04.2022 from https://hbr.org/2019/05/a-study-of-more-than-250-platforms-reveals-why-most-fail.