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Undergraduate Thesis / Postgraduate Dissertation

“Successful management strategies for the introduction of
disruptive digital platforms developed by startups”

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Patras, Greece, May 2024

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*I would like to thank my supervisor Fotis Kitsios for his support and dedicate this thesis to
Sotiris, Olympia, Aristidis and George.*

Abstract

In recent years, digital platforms such as Uber, Booking, Airbnb, and many more have gained much popularity and completely revolutionized the way that whole industries work. Most of these highly disruptive companies started their journey as startups that entered the market with a digital platform. What to this day remains less clear is how such a disruption, often with much less resources compared to established incumbents, can be achieved and whether certain strategic management choices can predict the disruptive potential of a startup.

This work focuses on defining, through a systematic literature review, the antecedents of disruption when a startup company enters the market with a digital platform. The results of the review revealed that initial target market, value proposition, creation, delivery, and capture, as well as ecosystem framing, internal firm's capabilities, and regulatory agenda aspects, are (all together or some of them, depending on the case and market) antecedents for disruption.

By identifying the antecedents of disruption, a framework to assess the disruptive potential of a digital platform startup company is proposed. To demonstrate the usefulness of this framework, a single case study approach is used. More specifically, the case of Treatwell, a startup company that introduced a digital platform marketplace for the online booking of hair and beauty services, is studied under the lens of the developed framework.

Through this case study and the accompanied framework analysis, it could be concluded that Treatwell has indeed disrupted the European hair and beauty industry through their initial target market, value proposition, market-driven value creation approach, value delivery and capture, as well as successful ecosystem building and entrepreneurial orientation skills of the founder's team. All these aspects were complementary to each other and all of them in combination contributed to the company's success.

Keywords

Digital platforms, startups, disruptive innovation, marketplace, Treatwell

Περίληψη

Τα τελευταία χρόνια, εταιρείες όπως η Uber, Booking, Airbnb αλλά και πολλές άλλες κατάφεραν να αποκτήσουν μια τεράστια βάση χρηστών αλλά και να αλλάξουν εξ ολοκλήρου και δραστικά τον τρόπο λειτουργίας ολόκληρης της βιομηχανίας στην οποία δραστηριοποιούνται. Οι περισσότερες από αυτές τις εταιρείες μάλιστα, ξεκίνησαν σαν μικρές startup που εισήγαγαν κάποια διαδικτυακή πλατφόρμα στην αγορά. Αυτό που εξακολουθεί ακόμα και σήμερα να έχει μεγάλο ερευνητικό ενδιαφέρον είναι ποιες είναι οι στρατηγικές διοίκησης ή γενικότερες προϋποθέσεις που οδήγησαν αυτές τις εταιρείες στο να αλλάξουν εντελώς το ανταγωνιστικό τοπίο στην αγορά, έχοντας μάλιστα συνήθως πολύ λιγότερη χρηματοδότηση από μεγάλες και εδραιωμένες εταιρείες του κλάδου. Επίσης αξίζει να ερευνηθεί εάν μπορεί με αυτές τις συνθήκες να δημιουργηθεί ένα πλαίσιο το οποίο θα μπορεί να προβλέψει τη μελλοντική δυναμική μιας εταιρείας σε αυτό το θέμα.

Χρησιμοποιώντας συστηματική βιβλιογραφική έρευνα, το πρώτο μέρος αυτής της εργασίας, εντοπίζει τους σημαντικούς παράγοντες που πρέπει να ληφθούν υπόψη ώστε να είναι δυνατή αυτή η πρόβλεψη ή αξιολόγηση. Οι παράγοντες αυτοί είναι η στρατηγική εισόδου στην αγορά, το value proposition, value creation, value delivery και value capture αλλά και παράγοντες που σχετίζονται με ολόκληρο το οικοσύστημα που θα δημιουργήσει η εταιρεία, με συγκεκριμένα εσωτερικά πλεονεκτήματα που μπορεί να έχει (πχ. Δεξιότητες των ιδρυτών/επενδυτών) και τέλος με το νομικό πλαίσιο και τυχόν κενά που αυτό έχει στον συγκεκριμένο τομέα που δραστηριοποιείται η εταιρεία.

Εντοπίζοντας τους παράγοντες που συνιστούν απαραίτητες προϋποθέσεις για την επιτυχία μιας startup προτείνεται ένα πλαίσιο αξιολόγησης. Χρησιμοποιώντας το προτεινόμενο πλαίσιο, αξιολογείται η περίπτωση μιας πραγματικής startup εταιρείας. Πιο συγκεκριμένα, μελετάται η περίπτωση της Treatwell, μιας startup εταιρείας που εισήγαγε στην Ευρωπαϊκή αγορά την πρώτη διαδικτυακή τύπου marketplace πλατφόρμα για υπηρεσίες ομορφιάς. Μέσω αυτής της πλατφόρμας έγινε δυνατή για πρώτη φορά η τοπική αναζήτηση, σύγκριση τιμών και διαδικτυακή κράτηση των ραντεβού για υπηρεσίες ομορφιάς, οδηγώντας σε δραστική αλλαγή του τρόπου με τον οποίο λειτουργούν οι υπηρεσίες ομορφιάς.

Λέξεις – Κλειδιά

Διαδικτυακές πλατφόρμες, startup εταιρείες

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List of Abbreviations & Acronyms

DI	Disruptive Innovation
EO	Entrepreneurial Orientation
SLR	Systematic Literature Review

1 Introduction

Based on its dictionary definition the word disruption has been associated with something negative. In the business world however, the word has often been used in combination with the word innovation, which has a positive association. Although the term has been given many different definitions, the general idea can be described as follows: Disruptive innovation occurs when a new market entrant manages to change a whole industry leaving the incumbent companies unable to respond (Kilkki et al., 2018). Disruptive innovation as a phenomenon has been increasingly studied for the last 20 years and especially after the publication of “The Innovator’s dilemma” in 1997 (Christensen, 1997).

When it comes to digital platforms and the market disruption that occurs through their use, the phenomenon has been reported in literature as ‘platform revolution’ (Parker et al., 2016). There is no doubt that digital platforms such as Uber, Booking, Airbnb and many more have gained a lot of popularity and revolutionized the way that whole industries worked. Most of these highly disruptive start-ups relied on business models that involved leveraging digital platforms, making use of the increasingly more digitized communication possibilities and distribution systems to connect global communities and essentially create multisided markets (Rochet & Tirole, 2004). The interesting aspect with disruptive companies is the so far inability to explain how they could manage to become better than incumbents often with significantly less resources.

Despite their increasing popularity, the extent to which the emerging digital start-ups can potentially disrupt the existing industries is unclear, especially at the academic level. Although strategies that incumbents could follow to prevent disruption have been widely explored in literature, little attention has been given to identifying the crucial antecedents of disruption and the characteristics of disruptive digital platforms but from the perspective of start-ups or new market entrant (Herold et al., 2023).

1.1 Aim of this study

This work aims to propose a holistic framework that can be used to assess or explain the disruptive potential of a digital platform startup company. Through an extensive and structured literature review, the goal is to better define disruption in the digital platform

space and determine the antecedents for a startup company to achieve such a market disruption. After the framework is built, a single case study of a startup company is conducted. The company Treatwell is selected for that purpose. Treatwell has developed a successful digital platform for the online booking of beauty appointments and is currently operating being the market leader in many European countries. By using the proposed framework dimensions the following two questions will be answered:

1. Did Treatwell disrupt the beauty industry through its digital platform?
2. What were the key aspects/antecedents of their strategy that led to the disruptive success?

1.2 Research scope and limitations

Each scientific work has certain limitations and the current study is no exception. The most important limitations of this research are the following:

- Due to the extremely multidisciplinary nature of the topic, it was impossible to include scientific work from each different field. Therefore, this research is primarily focused on scientific articles coming from the business and management research field and there was no focus during the literature review in important fields such as economics or marketing.
- Language was English. Most disruptive and highly valued startup companies come from the US and China (Bock & Hackober, 2020), however the selected publication set used in this study only shows increased number of publications focusing on the US region due to language limitations.
- The framework was tested by using a single case study and a European-based startup. Although some interesting conclusions can still be drawn from using a single case study, caution should be paid before making generalizations. Therefore, its wider applicability needs to be further tested.

1.3 Dissertation Outline

The first chapter of this work contains an introduction to the topic of management strategies used for digital platforms but from the perspective of startup companies that aim to disrupt an existing market. It summarizes the main objectives and research questions of this work as well as the importance of the selected literature review for the business and management field.

In the second chapter, the methodology followed in this work is presented and explained step by step. More specifically, the chosen SLR methodology steps of Webster and Watson are presented and analyzed. The literature review articles that were the starting point for this work are presented, and the selection criteria for the chosen scientific articles are also explained. Finally, the qualitative single case study methodology that was employed is briefly explained, along with an explanation of the data collection process that was followed for the case study part.

In the third chapter, the deliverables and results from the SLR literature review are presented in the form of tables and graphs. The results are analyzed and classified, leading to the determination of a framework containing the most important concepts. The selected framework concepts are briefly presented and analyzed in the fourth chapter leading to the proposal of one framework under which the disruptive potential of a digital platform startup company can be retrospectively assessed or even predicted.

The fifth chapter of this work contains a historical single case study of a startup from the beauty industry. The company timeline is presented, and its strategic decisions are analyzed under the lens of the previously proposed framework.

Finally, the last chapter of this work contains a summary of the research findings, conclusions, contribution to the field, and suggestions for further research related to the topic.

2 Methodology

2.1 Systematic Literature Review (SLR)

To answer the main research questions of this thesis, a three-phase systematic literature review approach, as suggested by Webster and Watson, was used (Webster & Watson, 2002). During the initial stage, existing previous literature reviews related to the topic of interest were searched in order to select the appropriate database(s) and keywords for the main search. The outcome of the first step's main search is a list of the selected relevant publications that should be included in the study based on certain selection criteria. During the second step, the references (backward search), as well as the citations (forward search) of the selected publications, were examined and added to the list if relevant. Finally, during the last step, selected publications were classified according to their full-text content, and certain trends or concepts were observed. For the scope of this study, the literature reviews presented in Table 1 were selected as most relevant.

Table 1: Selection of previous literature review articles related to the topic of digital disruption from the perspective of a startup company

Reference	Keywords	Methodology	Results
Sreenivasan, A., & Suresh, M. (2023). Digital transformation in start-ups: a bibliometric analysis. Digital Transformation and Society.	(“Digital transformation”) AND (“Startups”) OR (“Entrepreneurship”) OR (“Entrepreneur”)	1 database (Dimensions). The R programming language’s Biblioshiny package was considered for thoroughly examining the papers. The study covers the period of 2016 – 2022.	Regarding the practical ramifications, this study’s findings can help entrepreneurs prepare to launch a business or are already doing so. This study’s results provide a comprehensive framework of success variables that must be considered to improve the venture’s performance. While the overall trend shows a rise in the interest and investigation of digital transformation, the number of studies explicitly addressing start-up digital transformation still needs to be higher. The top three (theoretical) future research topics that can be further explored are Product Innovation; Sustainability;

			Frugality, Digital Transformation; Strategic Alignment, and Cybersecurity; Strategies; Digital Transformation
Vesti, H., Nielsen, C., Rosenstand, C. A. F., Massaro, M., & Lund, M. (2017, December). Structured Literature Review of disruptive innovation theory within the digital domain. In The ISPIM innovation summit.	1). Disruptive AND Digital 2). Disruption AND Technologies 3). Disrupting AND Innovation	Google Scholar as database, NVIVO for analysis	The trend is following Christensen's earlier mentioned suggestion of integrating the theory of disruption with other perspectives. Business model innovation is a prime driver of the field at the present, through the business and management perspective. To this point the field of digital disruption can be considered as relatively immature.

The selected database for this study was Scopus. The reason for selecting Scopus is because this database includes a wide variety of scientific articles from many different journals and databases and, at the same time, is widely acknowledged as a valid and reliable database within the academic community. Based on the selected literature reviews and the scope of this project, the two keyword combination searches were conducted in Scopus. The search queries for each search are listed in Table 2 below.

Table 2: Selected keywords for the Scopus database

Search No	Search Field/Database	Search Query
1	title, abstract, keywords at Scopus (total articles: 610)	(“Digital transformation”) AND ((“Startups”) OR (“Entrepreneurship”) OR (“Entrepreneur”))
2	title, abstract, keywords at Scopus (total articles: 18,399)	(Disruptive AND Digital) OR (Disruption AND Technologies) OR (Disrupting AND Innovation)

To contain and improve the selection of articles, the following initial limitations were also applied during the article selection:

- Only include articles written in English
- Only include “journals” as source type

- Only include “articles” as document type
- Only include Subjects area of: Business, Management and Accounting

The selection criteria for this process are presented schematically in Figure 1.

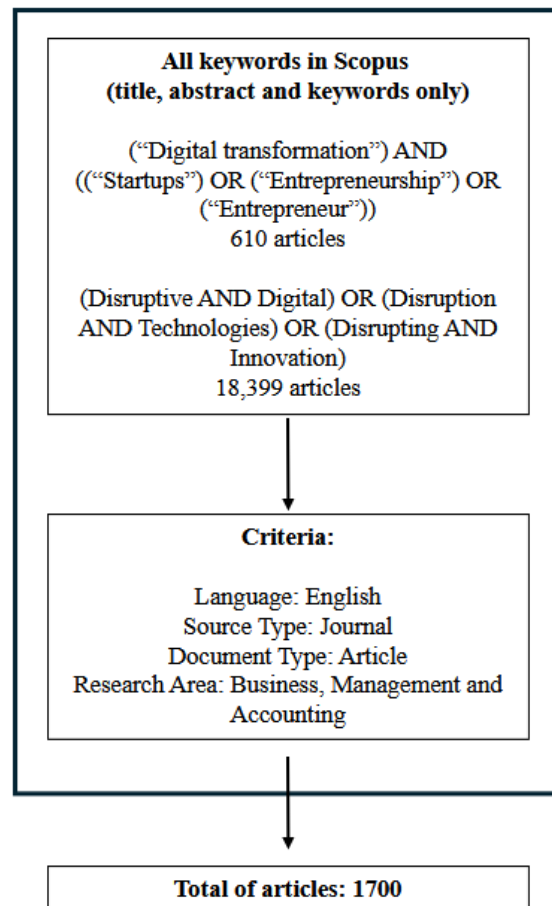


Figure 1: Schematic representation of the selection criteria process

After the initial limitations and duplicate removal process, there were 1,700 articles left. The relevance of these articles was evaluated based solely on their title and keywords. Some of the most common reasons for rejecting a title as out-of-scope were the following:

- There was a clear focus on non-profit organizations or governments.
- There was a clear focus on social impact/implications.
- There was an exclusive focus on marketing and not a business model/management strategy.
- The focus was only on large corporations wishing to launch a platform or digitize their existing business.

- The focus on educational aspects or education platforms.
- There was a sole focus on ethics/morality issues
- Clear focus exclusively on the COVID period/consequence

Instead, the remaining article titles showed potential focus on the business model, strategy, or value creation aspects of companies that entered a market with a digital platform. After this title-based elimination process, 471 articles were assessed as potentially relevant. These articles were subsequently assessed by reading their abstract. Additional relevance criteria used at this step were the following:

- Article should have a clear focus on business models, launch or growth strategy of start-ups/small companies and not incubators (unless the incubator article is important for a theory development).
- The article should focus on the platform owner and not the participating sides (e.g., focusing on Amazon from the perspective of the company and not on the buyers/sellers).
- The articles to be included should not focus on regulation/policy aspects from a government perspective.
- Intrapreneurship is out of scope.

After this second assessment, 147 articles were considered relevant. Based on their full-text evaluation, 52 articles were selected as relevant for this study.

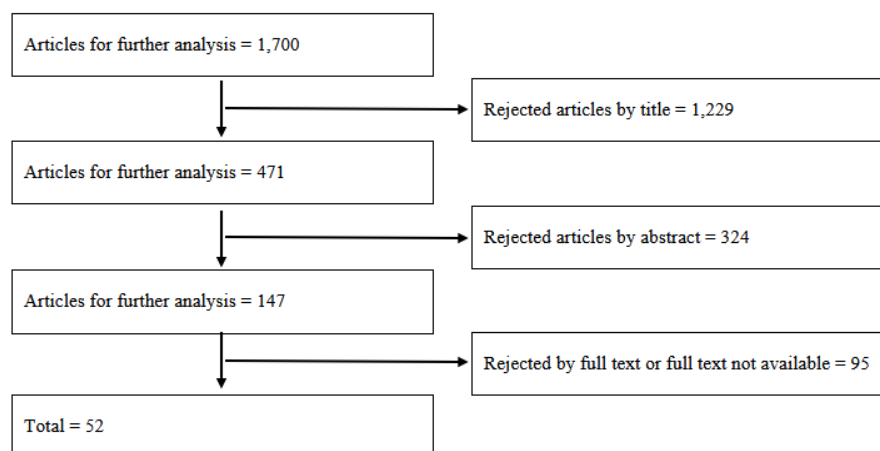


Figure 2: Schematic representation of the article selection process

During the final step, selected publications were classified into a concept matrix to identify the most commonly found theories and terms.

2.2 Backward and forward search

During the backward search step, the references of the selected articles were examined, whereas during the forward step, the citations of the selected articles were examined. These two searches resulted in the addition of 6 more articles. Therefore, the total number of selected publications for this work is 58. At this point, the search using relevant keywords did not provide any additional relevant publications, and therefore, it can be safely assumed that the most important and impactful publications for the topic have been included in the study (Webster & Watson, 2002).

2.3 Classification of articles and analysis

In the final step of the literature review study, selected articles are classified, and the results stemming from this classification are analyzed in order to propose an appropriate framework. The classification is primarily conducted using a matrix approach based on the main concept idea(s) that each work is examining. The matrix analysis is performed manually using MS Excel based on the full text of each of the selected publications. Next to the concept matrix analysis, a bibliometric analysis using VOSviewer software (version 1.6.20) was also conducted to support further and better visualize the obtained data. Secondary aspects of the classification include:

- The research method (empirical or conceptual)
- Country of scope
- Year of publication

2.4 Data collection methods

Academic Publications: Academic publications were used primarily for the literature review and the explanations of the innovation management frameworks and disruption antecedents

following the methodology described in previous sections. To the author's best knowledge there was no academic publication featuring a case study with Treatwell or another startup who developed a booking system platform for the beauty industry.

Videos: YouTube and other databases were scanned to find videos in which key management members of the Treatwell company gave presentations or interviews. An insightful 13 minute interview between Treatwell's founder and CEO and his initial investor is included in the data collected for this case study.

Company's official website: The company's official website was used to better understand the company's offering to all stakeholders of its ecosystem as well as the value proposition.

Non-academic sources: The name Treatwell combined with different keywords was used to extract information and stakeholder interviews from different business journals, press releases, newspapers, magazines and other websites with information related to Treatwell's partners.

Semi-structured interview: Jan-Willem van Boeckel who is one of the co-founders of Treatwell in the Netherlands and also actively involved in the company's management after the merge with Wahanda, provided insightful responses regarding the early stages of the company via informal discussions and by answering 6 questions via email.

Investor information: Obtained only through publicly available sources, mostly Crunchbase.

All collected data were grouped depending on the topic/person of interest and structured in chronological order (matrix is provided in Appendix B).

3 Literature Review

3.1 Historical evolution of research interest

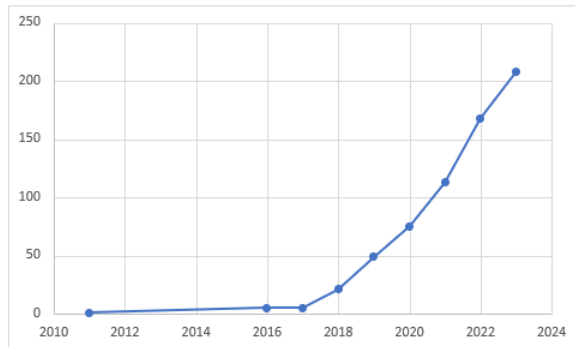


Figure 3: Number of publications per year based on Search 1 keywords in Table 2

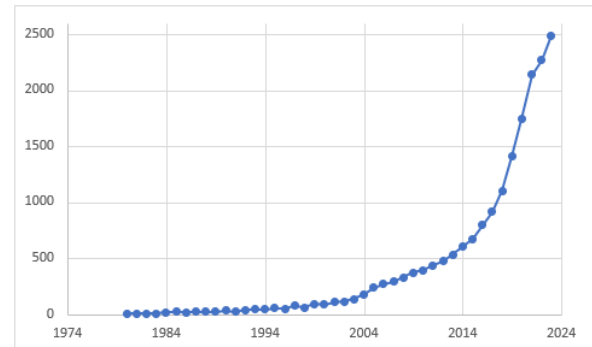


Figure 4: Number of publications per year based on Search 2 keywords in Table 2.

Based on the total number of publications from the two initial searches in the Scopus database (1,700 articles), it can be seen that there is a clear upward trend in both cases. In the second search (Figure 4), in which the focus was the disruption without including the digital or start up aspects, academic interest started before 1984 and started growing rapidly since 2004. When it comes to the aspects of digital and start-up, though (Figure 3), the research interest only started to grow after 2018. In both cases, the research is highly interdisciplinary, coming from very different fields, and terms such as disruption are very often misused or not clearly defined, as discussed later in this thesis.

3.2 Classification of the selected articles

As described in Chapter 2, in this work, a bibliometric analysis using Scopus as database was conducted. A list with all the selected publications classified as relevant for this work and grouped as conceptual and empirical publications is included in Appendix A. The full text from the selected publications was studied to identify the main concept ideas presented in each work. The results are presented in Table 3.

Additionally, the list of selected publications presented in Appendix A was imported into VOSviewer for a co-occurrence of keyword analysis. In this VOSviewer analysis, the formed clusters are defined as a set of non-overlapping items (in this case, keywords found in publications) that have certain links with each other, eventually forming a network.

Table 3: Final selection of articles and concept ideas – matrix table presenting the relevance of each publication to one or more concept ideas

No	Authors	Year	Method	Disruptive innovation	Business model innovation/f framework	Business ecosystem (incl. coopetitive dynamics)	Dynamic Capabilities	Entrepreneurial orientation / entrepreneurship / founder's experience or skills	Regulatory agenda & infrastructure	Product market vs. market for ideas	Transilience map
1	Saqib N.; Shah G.B.	2022	qualitative (single case study)		X						
2	Taeuscher, K., & Laudien, S. M.	2018	Mixed method (qualitative and quantitative)		X						
3	Reis J.Z.; Goncalves R.F.; Lage E.S.; Nääs I.A.	2022	qualitative (single case study)		X						
4	Centobelli P.; Cerchione R.; Esposito E.; Passaro R.; Quinto I.	2022	Mixed method (qualitative and quantitative)					X	X		
5	Matricano D.	2022	quantitative				X				
6	Mattos C.A.; Novais Filho M.J.	2023	qualitative (multiple case study)		X						
7	Rong K.; Lin Y.; Du W.; Yang S.	2023	qualitative (interviews with experts)		X	X					
8	Jahn J.; Bohnet-Joschko S.	2023	qualitative (multiple case study)		X						
9	Gupta G.; Bose I.	2022	qualitative (multiple case study)		X						

10	Bullini Orlandi L.; Zardini A.; Rossignoli C.	2021	qualitative						X		
11	Thakur R.; AlSaleh D.; Hale D.	2023	quantitative (hypothesis testing)	X							
12	Hersleth S.A.; Gonera A.; Kubberød E.	2023	qualitative (multiple case study)					X			
13	Turki A.; Rieg R.	2023	quantitative (Bayesian quantile approach)					X			
14	Kraus S.; Vonmetz K.; Bullini Orlandi L.; Zardini A.; Rossignoli C.	2023	quantitative (hypothesis testing with survey)	X				X			
15	Petzold N.; Schmidt A.L.; Scaringella L.	2023	qualitative (multiple case study)	X	X						
16	Herold D.M.; Fahimnia B.; Breitbarth T.	2023	qualitative (single case study)	X	X	X			X		
17	Etemad H.	2023	qualitative (multiple case study)			X					
18	Agyei-Boapeah H.; Evans R.; Nisar T.M.	2022	qualitative (multiple case study)	X	X						
19	Aversa P.; Huyghe A.; Bonadio G.	2021	qualitative (multiple case study (comparative of two firms))		X				X		

20	Zhou Z.; Wan X.	2022	quantitative	X							
21	Badran M.F.	2021	qualitative (single case study)		X	X			X		
22	Bock C.; Hackober C.	2020	quantitative						X		
23	Gularso K.; Mursitama T.N.; Heriyati P.; Simatupang B.	2020	Quantitative (questionnaire)	X	X		X				
24	Jin B.E.; Shin D.C.	2020	qualitative (multiple case study)	X	X						
25	Sousa M.J.; Rocha Á.	2019	Mixed method (qualitative and quantitative)					X			
26	Brazinskas S.; Pipiriene V.; Khayrzoda S.	2021	qualitative (multiple case study)					X	X		
27	Ansari S.S.; Garud R.; Kumaraswamy A.	2016	qualitative (single case study)	X		X					
28	Lattemann C.; Alon I.; Patig E.	2019	qualitative (single case study)	X	X						
29	Boswijk A.	2017	qualitative (single case study)		X						
30	Habtay S.R.	2012	qualitative (multiple case study)	X	X						

3 1	Dong J.Q.	2019	qualitative (single case study)				X	X	X		
3 2	Lyubareva I.; Benghozi P.-J.; Fidele T.	2014	quantitative		X						
3 3	Leong C.; Tan B.; Xiao X.; Tan F.T.C.; Sun Y.	2017	qualitative (single case study)			X			X		
3 4	Berglund H.; Sandström C.	2017	qualitative (single case study)	X			X				
3 5	Heshmatisafa S.; Seppänen M.	2023	qualitative (single case study)		X	X					
3 6	Urbinati, A., Chiaroni, D., Chiesa, V., & Frattini, F.	2019	Qualitative (historical analysis)		X						
3 7	A. Cozzolino, G. Verona, F. T. Rothaermel	2018	qualitative (single case study)	X	X						
3 8	Y. Snihur, L. D. W. Thomas and R. A. Burgelman	2018	qualitative (multiple case study)	X	X	X					
3 9	Still, K., Seppanen, M., Korhonen, H., Valkokari, K., Suominen, A., & Kumpulainen, M.	2017	qualitative (multiple case study)		X						

40	MF Teoh, NH Ahmad, HA Halim, CH Ong	2022	qualitative (multiple case study)		X		X	X	X		
41	A. Maulana, Y.G. Sucahyo, Y. Ruldeviyani, A. Gandhi	2018	qualitative (exploratory study)		X	X					
42	Ruben Mancha, Steven Gordon & Bala Iyer	2018	qualitative (single case study)		X		X				
43	L. Majamäki, M. Akpınar	2014	qualitative (single case study)	X							
44	Alet J.	2023	conceptual			X					
45	Krippendorff K.	2022	conceptual			X					
46	Imam T.	2022	conceptual	X					X		
47	Adner R.; Lieberman M.	2021	conceptual	X		X					
48	Denning S.	2021	conceptual			X					
49	Christensen C.M.; McDonald R.; Altman E.J.; Palmer J.E.	2018	conceptual	X							
50	Kilkkki K.; Mäntylä M.; Karhu K.; Hämmäinen H.; Ailisto H.	2018	conceptual	X							

5 1	V.J. Thomas, E. Maine	2019	conceptual	X						X	X
5 2	David J. Teece, Greg Linden	2017	conceptual		X		X				
5 3	Osterwalder, A., and Pigneur, Y.	2013	conceptual		X						
5 4	Jean-Charles Rochet, Jean Tirole	2003	conceptual		X						
5 5	Christian Sandström	2011	conceptual	X							
5 6	Constantinos Markides	2006	conceptual	X							
5 7	Abernathy, Clark	1985	conceptual								X
5 8	Sucet Jimena Martinez- Vergara and Jaume Valls- Pasola	2021	conceptual	X							

The total number of publications mentioning each of the core concepts presented at Table 3 is summarized schematically in Figure 5. It is clear that the majority of researchers focus on explaining a startup's disruption or radical innovation and success through the lens of Christensen's classic disruptive innovation theory and by focusing on different aspects of the company's business model. It can also be concluded already that many researchers combine more than one theory in order to develop a more complete framework.

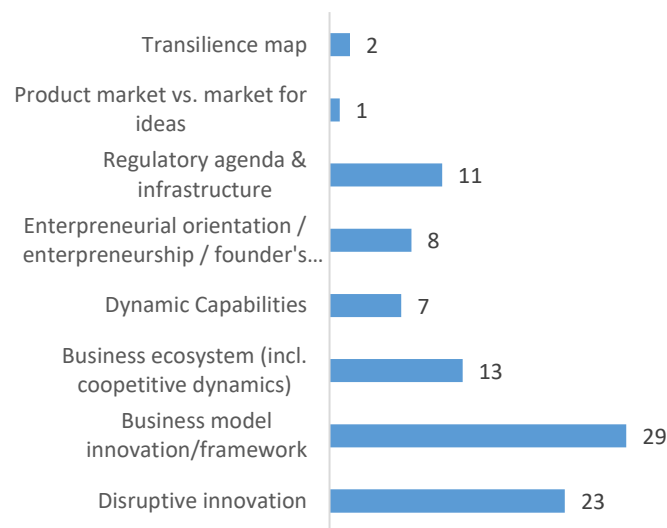


Figure 5: Number of publications per concept idea. Each publication can refer to more than one concept

Besides the manual analysis, co-occurrence analysis of the author's keywords was used via VOSviewer software. Keyword co-occurrence analysis visualizes the relationship between keywords, grouping them into certain clusters that are connected to each other (Van Eck & Waltman, 2014). The size of each cluster node is dependent on the number of occurrences and on how frequently the node is linked to other nodes. The line thickness between the nodes indicates the strength of the connection they have, in simple words and, for this case, the number of publications that share the same keyword terms. Distance between each node is also important; the closer the two nodes are, the stronger their association is.

Figure 6 and Figure 7 visualize the keyword co-occurrence results for the selected publication list (Appendix A).

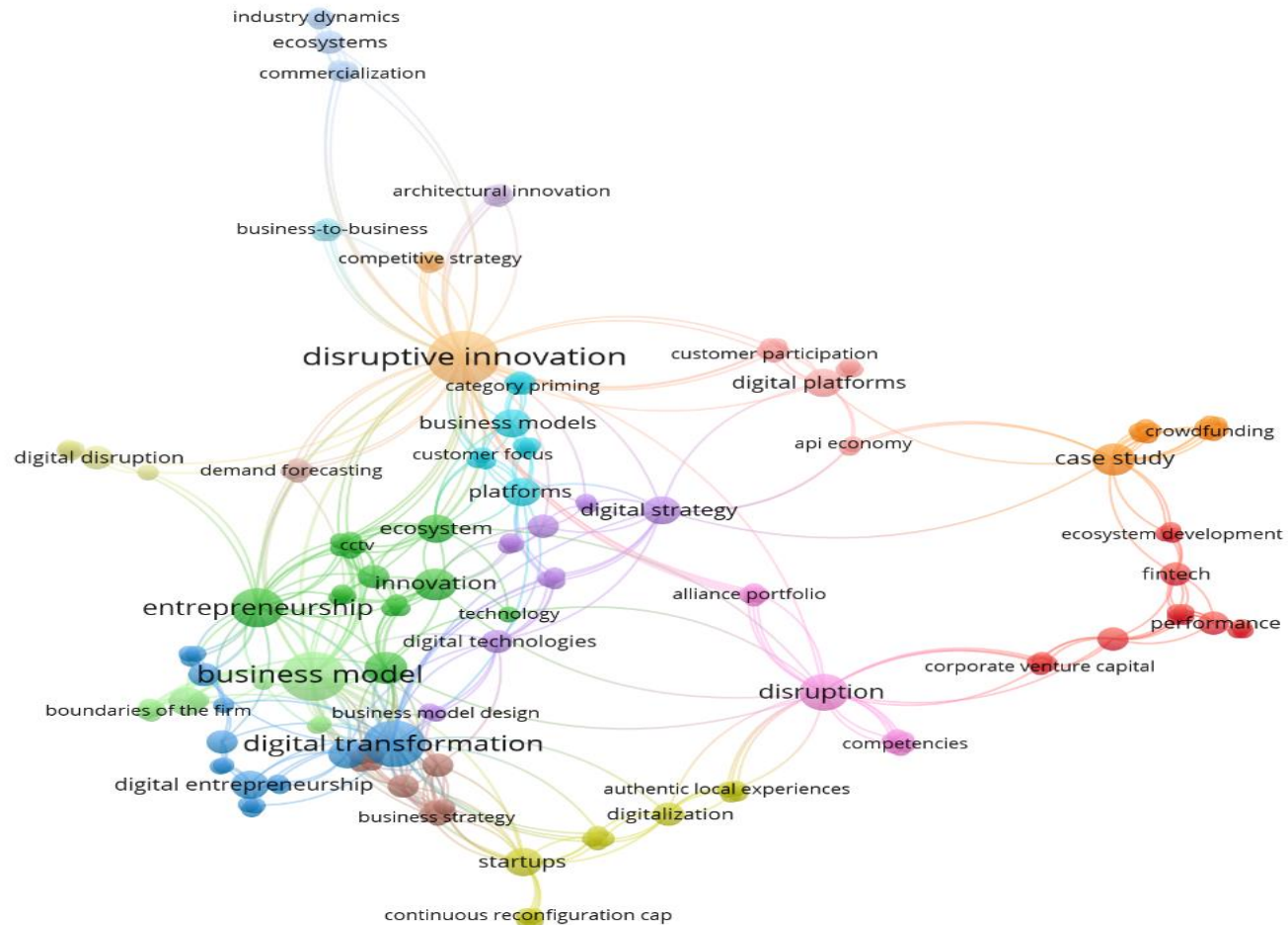


Figure 6: Co-occurrence of keywords in the selection publications of this study

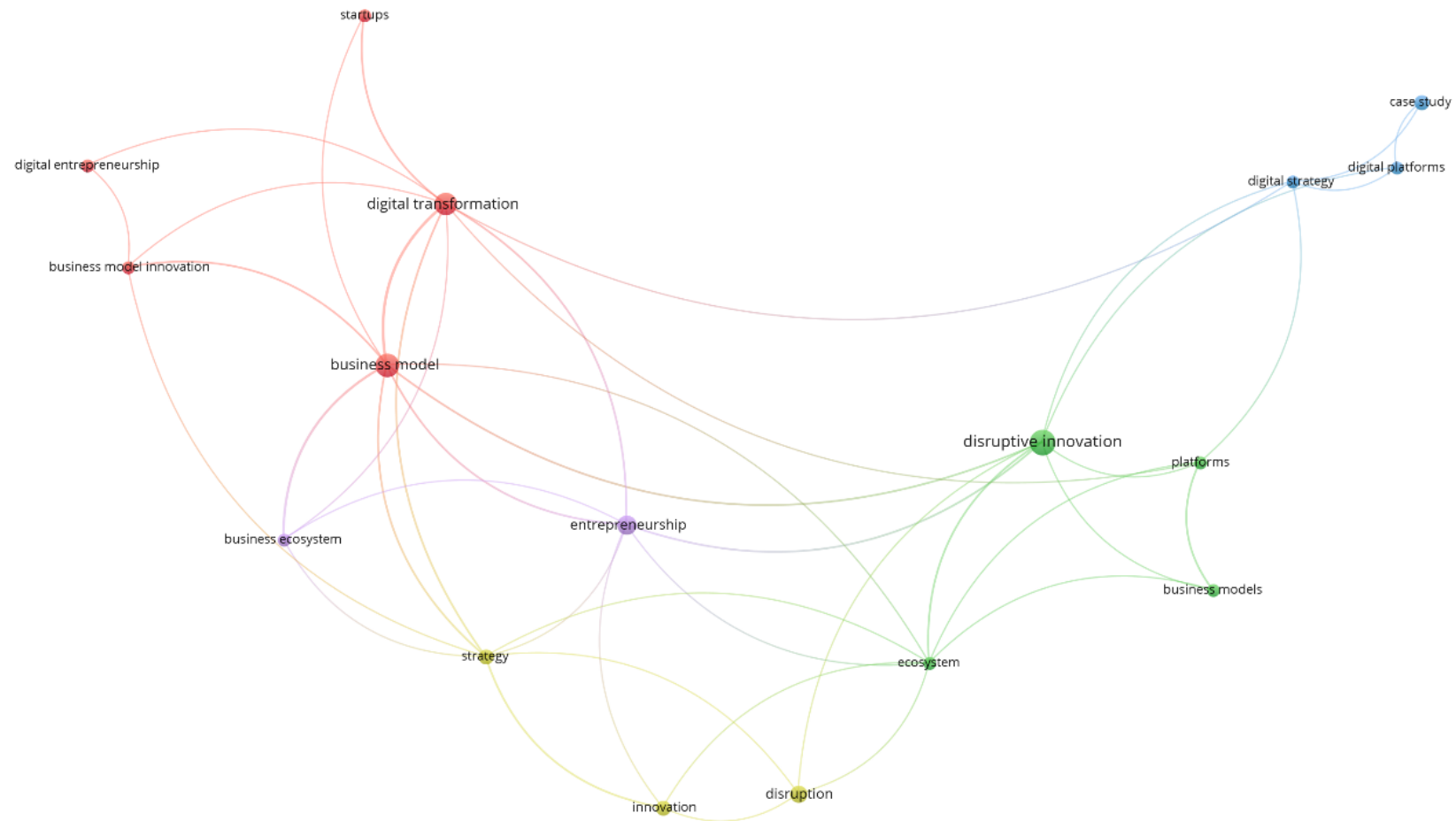


Figure 7: Co-occurrence of keywords that appear more than three times in the selected publications of this study

From Figure 6, it is clear that the most significant clusters are the ones of disruptive innovation or disruption, business models, ecosystem development, and digital transformation via entrepreneurship. These results are in line with observations from Table 3. Results from the co-occurrence of keywords that appear more than three times (Figure 7) separate the publications' keywords into five clusters, all connected to each other. Some terms overlap, which also shows the importance of considering all aspects when discussing strategy and disruption. The distinct clusters include, among others, disruptive innovation, business model innovation, business ecosystem, and entrepreneurship.

Finally, the empirical articles were further classified based on their research method, sample, region, industry of interest, and data analysis. The results can be found in Table 4.

Table 4: Information about the research method, region, industry sample data and analysis methods of the empirical articles

	Authors	Year	Research method	Sample/Data	Region	Data analysis	Industry
1	Saqib N.; Shah G.B.	2022	qualitative (single case study)	secondary data (publicly available)	India	exploratory historical case study with documental analysis	Food
2	Taeuscher, K., & Laudien, S. M.	2018	Mixed method (qualitative and quantitative)	100 randomly selected marketplaces using expert interviews, secondary data & quantitative data	Global	binary coding, content & cluster analysis	Marketplaces
3	Reis J.Z.; Goncalves R.F.; Lage E.S.; Nääs I.A.	2022	qualitative (single case study)	single semi-structured interview with the entrepreneur & document analysis	Brazil	deductive/theory testing process and documental analysis	Agriculture
4	Centobelli P.; Cerchione R.; Esposito E.; Passaro R.; Quinto I.	2022	Mixed method (qualitative and quantitative)	database of 6,178 Italian firms listed in the Register of Innovative Startups	Italy	Chi-square tests (quantitative) & web-based document analysis (qualitative)	all industries within the digital domain
5	Matricano D.	2022	quantitative	11,760 Italian innovative start-ups (data are retrieved from the Italian Ministry of Economic Development website)	Italy	stochastic frontier analysis	not specified
6	Mattos C.A.; Novais Filho M.J.	2023	qualitative (multiple case study)	three organizations (semi-structured interviews)	Brazil	content/document and performance indicators analysis	Manufacturing

7	Rong K.; Lin Y.; Du W.; Yang S.	2023	qualitative (interviews with experts)	237 scientific publications and expert interviews	Global	structured literature reviews and content analysis from interviews	not specified
8	Jahn J.; Bohnet-Joschko S.	2023	qualitative (multiple case study)	18 startups from crunchbase database (secondary data only)	Global	company profile analysis and business model analysis	Healthcare
9	Gupta G.; Bose I.	2022	qualitative (multiple case study)	2 startups - semi-structured interviews with the founders and secondary information	US and India	inducto-deductive approach with constant iterations between data collection and analysis with a focus on theory development	Crowdfunding
10	Bullini Orlandi L.; Zardini A.; Rossignoli C.	2021	qualitative	secondary data from six databases	Europe	fuzzy-set qualitative comparative analysis (fs-QCA)	not specified
11	Thakur R.; AlSaleh D.; Hale D.	2023	quantitative (hypothesis testing)	survey filled by 272 managers	US	confirmatory factor analysis (CFA), Harman's single-factor test	not specified
12	Hersleth S.A.; Gøner A.; Kubberød E.	2023	qualitative (multiple case study)	semi-structured in-depth interviews with each company's founders	Norway	thematic analysis	Food
13	Turki A.; Rieg R.	2023	quantitative	data set of 105 Fintechs from European countries (from public sources, mostly Crunchbase)	UK, France, Spain, Italy, Germany and Belgium	Bayesian quantile approach	Financial services
14	Kraus S.; Vonmetz K.; Bullini Orlandi L.; Zardini A.; Rossignoli C.	2023	quantitative (hypothesis testing)	survey data (Likert-scale) from a sample of 242 firms	Global	(1) exploratory factor analysis (EFA); (2) coefficients composite reliability (CR), Cronbach's alpha (CA), and average variance extracted (AVE); and (3) confirmatory factor analysis (CFA).	not specified
15	Petzold N.; Schmidt A.L.; Scaringella L.	2023	qualitative (multiple case study)	2 companies - semi-structured and informal interviews and secondary data	Germany	Grounding, organizing and replicating	Fashion retail, insurance

16	Herold D.M.; Fahimnia B.; Breitbarth T.	2023	qualitative (single case study)	semi-structured interview with co-founder and secondary data	Germany	thematic analysis	Logistics
17	Etemad H.	2023	qualitative (multiple case study)	secondary data	Global	not specified	multi-sided online platforms
18	Agyei-Boapeah H.; Evans R.; Nisar T.M.	2022	qualitative (multiple case study)	15 firms - secondary data and semi-structured interviews	not specified	cross-case analysis	Financial services
19	Aversa P.; Huyghe A.; Bonadio G.	2021	qualitative (multiple case study)	comparative study of two firms with secondary data & support from legal expert	Spain	inductive approach combining a comparative logic and a grounded-theory coding logic	Transportation
20	Zhou Z.; Wan X.	2022	quantitative	profitability and stock performance of the incumbents from secondary data sources	US	Difference-in-Differences (DID) analysis and the event study method	Logistics
21	Badran M.F.	2021	qualitative (single case study)	semi-structured interviews with Jumia Egypt's senior management and Jumia Egypt's CEO	Africa	qualitative descriptive study applying economic analysis and a reference assessment framework	e-commerce
22	Bock C.; Hackober C.	2020	quantitative	2 datasets: 1. 215 unicorns from CB insights 2. 226 (113 unicorns and 113 non-unicorns). Secondary data derived from Crunchbase	not specified	two independent analyses with different data samples - 1. hierarchical logistic regression analysis - 2. linear regression	not specified
23	Gularso K.; Mursitama T.N.; Heriyati P.; Simatupang B.	2020	Quantitative (questionnaire)	quantitative (sample from database and questionnaire)	Indonesia	Partial Least Squares-Structural Equation Modeling (PLS-SEM) using SmartPLS 3 software	multiple
24	Jin B.E.; Shin D.C.	2020	qualitative (multiple case study)	3 companies - secondary data	US	not specified	Fashion retail

25	Sousa M.J.; Rocha Á.	2019	Mixed method (qualitative and quantitative)	qualitative (semi-structured interviews) and quantitative (online survey with 147 responses from managers)	not specified	content analysis of semi-structured interviews with seven IT specialists + online survey which was analysed with Cronbach's alpha Coefficient, Chi-square Tests, and Mann-Whitney Tests	not specified
26	Brazinskas S.; Pipirienė V.; Khayrizada S.	2021	qualitative (multiple case study)	interviews from managers of 400 firms	Eastern Europe	content analysis	industrial engineering and food
27	Ansari S.S.; Garud R.; Kumaraswamy A.	2016	qualitative (single case study)	secondary data & 7 semi-structured interviews with executives	US	thematic analysis	Media
28	Lattermann C.; Alon I.; Patig E.	2019	qualitative (single case study)	secondary data	US	not specified	Financial services
29	Boswijk A.	2017	qualitative (single case study)	interviews the author conducted with Airbnb staff, hosts, and guests, on previous research and on data from Airdna (2015–2016) compared with public data	Global	not specified	Hospitality
30	Habtay S.R.	2012	qualitative (multiple case study)	4 companies - 36 interviews with executives using open-ended questionnaires	not specified	cross-case content analysis	not specified
31	Dong J.Q.	2019	qualitative (single case study)	11 semi-structural interviews with two founders, the chief executive officer (CEO), and two employees responsible for information technology and marketing were conducted. Six clients were also interviewed and finally there was a client survey with 96 responses	Netherlands	multi-methods to triangulate data	Healthcare
32	Lyubareva I.; Benghozi P.-J.; Fidele T.	2014	quantitative	34 cultural content Web sites selected on a convenience sample basis	not specified	non parametric multiple correspondence analysis & associated clustering	Media
33	Leong C.; Tan B.; Xiao X.; Tan F.T.C.; Sun Y.	2017	qualitative (single case study)	in-depth semi-structured interviews	China	not specified	Financial services

34	Berglund H.; Sandström C.	2017	qualitative (single case study)	Semi-structured interviews were conducted with nine key employees who have been working with business development and R&D for a long time and secondary data	not specified	not specified	not specified
35	Heshmatisafa S.; Seppänen M.	2023	qualitative (single case study)	secondary data	Spain	thematic analysis	Travel industry
36	Urbinati, A., Chiaroni, D., Chiesa, V., & Frattini, F.	2019	qualitative(historical analysis)	secondary data for a sample of 50 Unicorn tech companies	Global	cluster and content analysis	multiple
37	A. Cozzolino, G. Verona, F. T. Rothaermel	2018	qualitative (single case study)	in-depth interviews & secondary data	Italy	not specified	Media
38	Y. Snihur, L. D. W. Thomas and R. A. Burgelman	2018	qualitative (multiple case study)	2 companies- secondary, publicly available data only	not specified	second-order data analysis	multiple
39	Still, K., Seppanen, M., Korhonen, H., Valkokari, K., Suominen, A., & Kumpulainen, M.	2017	qualitative (multiple case study)	34 startup companies - structured interviews	Finland	not specified	multiple - technology related only
40	MF Teoh, NH Ahmad, HA Halim, CH Ong	2022	qualitative (multiple case study)	4 startup companies, semi-structured interviews	Malaysia	thematic analysis	Manufacturing
41	A. Maulana, Y.G. Sucahyo, Y. Ruldeviyani, A. Gandhi	2018	qualitative (exploratory study)	semi-structured interviews with 5 experts related to platform-based startups	Indonesia	not specified	multiple - platform based only
42	Ruben Mancha, Steven Gordon & Bala Iyer	2018	qualitative (single case study)	multiple interviews and group sessions	US	content analysis	Mobile application
43	L. Majamäki, M. Akpinar	2014	qualitative (single case study)	two semi-structured interviews (founder and one expert)	Finland	data triangulation	not disclosed

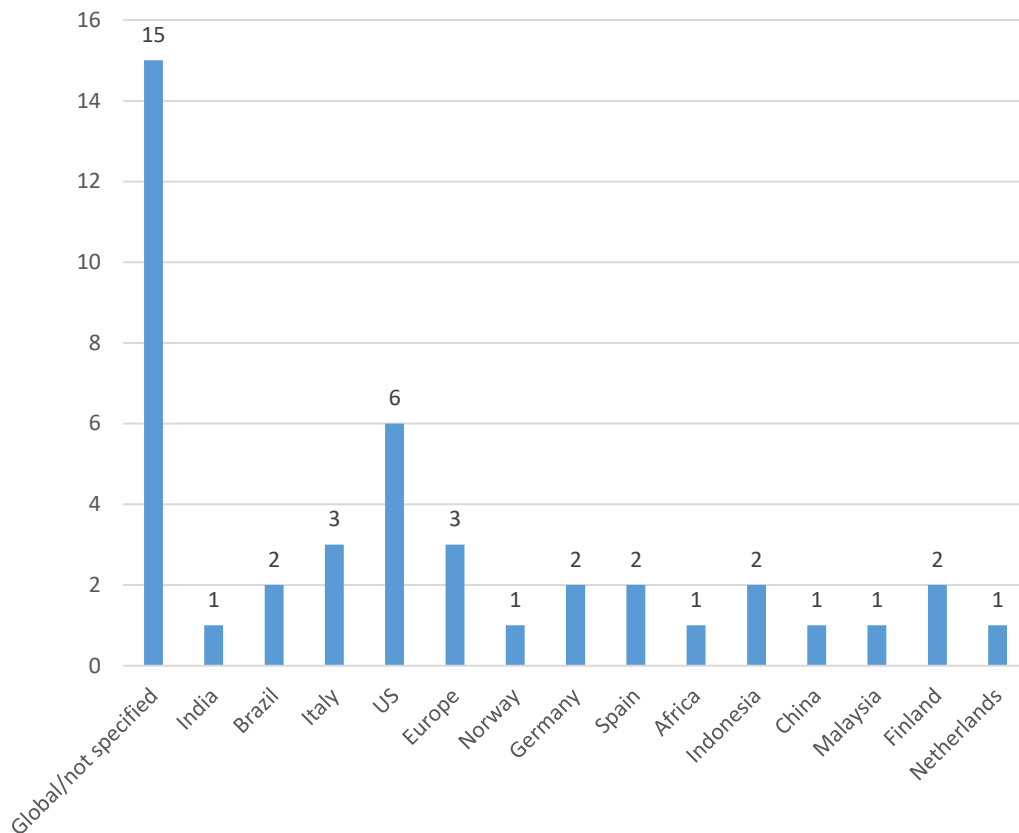


Figure 8: Number of articles per focus region

Some observations can be made by visualizing the region-specific focus of each publication included in the study. As expected, the US has the majority of research work that focuses exclusively on US-based companies. Among European countries, Italy is very often at the focus of research work related to startup companies and entrepreneurship. Additionally, and probably due to a lack of sufficiently large data sets, on many occasions, the focus of the research work includes companies from more than one country.

By grouping the selected articles based on their research method in Figure 9, it is shown that most research in the field is qualitative, using either a single or multiple case study approach to study the antecedents for disruption. Quantitative methods are less common and mostly based on questionnaires filled in by managers, founders, and executives, as well as hypothesis testing using different performance metrics to assess the success or failure of a sample of startups. In the latter case, data mostly come from publicly available databases.

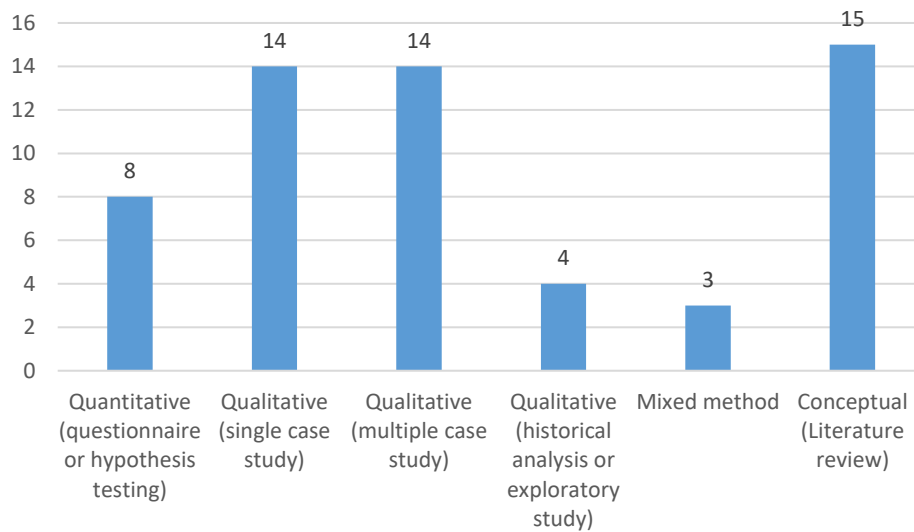


Figure 9: Number of articles per research method

3.3 Current research landscape

3.3.1 Overview

The concept of disruption, especially in the context of digital platforms launched by startup companies, is highly interdisciplinary. Due to this interdisciplinary nature of the topic, research is highly fragmented and there are different perspectives in literature about the concepts and definitions of digital disruption.

Some researchers focus on business models and business model innovation to explain disruption through the creation of competitive advantage. Remané et al. have identified 49 digital business model types in an effort to explain how the novelties of these digital models create value specifically in comparison with more traditional business models and how this value is delivered and captured (Remané et al., 2022). Their work results in three broad categories of digital business models, which are: (1) offering digitally enabled products or services, (2) enabling digital business from a resource and capabilities perspective, and (3) facilitating intermediation. When it comes to understanding why a company has been disruptive, most of the literature could be summarized into a 4V business model framework covering value proposition, value creation, value delivery and value capture (Rong et al., 2023).

At the intersection between business model innovation and ecosystem creation perspectives, Rong et al. (Rong et al., 2023) reviewed the literature from the perspective of business

ecosystem-oriented business models, specifically focusing on the digital domain. Their work emphasizes three main themes: (1) focusing on dynamic characteristics to achieve continuous business model innovation driven by digital technologies; (2) emphasizing the adoption of digital technologies and digitalization capabilities to reshape the business model innovation; and (3) highlighting the importance of enhancing relationships with ecosystem partners for sustainable development.

Finally, some researchers approached the topic by focusing on entrepreneurial orientation, leadership and the characteristics of the entrepreneur in order to explain the creation of disruption. By focusing on the intersection between the co-evolution of entrepreneurship and innovation Alerasoul et al. (Alerasoul et al., 2022) have identified entrepreneurial innovation and digital transformation, sustainable innovation and entrepreneurship, product innovation and knowledge, entrepreneurial orientation and leadership, and regional entrepreneurship and innovation as main research themes. Felicetti et.al (Felicetti et al., 2023) have also focused on the intersection of entrepreneurship and innovation but with a specific focus on the digital domain. Their work identifies startup collaboration networks, business model innovation, digital platforms, digital ventures, the profile of the entrepreneur and digital innovation ecosystems as the main research topics of interest in literature over the past 20 years. An important conclusion of this study is that entrepreneurial companies and their corresponding business model cannot be analyzed in isolation from the business ecosystems that have developed thanks to and around digital technologies (Felicetti et al., 2023).

3.3.2 Empirical research on disruption and startup companies

As depicted in Table 3, most current publications that try to explain or assess the disruptive power of a company use a combination of the classic disruptive innovation theory's characteristics (Christensen et al., 2018) combined with one or more elements of the business model canvas or business model innovation approaches and a single or multiple case study approach.

A lot of researchers adopt the in-depth single case study approach, trying to analyze and explain the success of a single company under the lens of one or more innovation management frameworks. Some researchers are relying solely on the business model framework for that purpose (Boswijk, 2017; Reis et al., 2022; Saqib & Shah, 2022). Others

combine aspects from the business model canvas framework with the disruptive innovation framework (Cozzolino et al., 2018; Lattemann et al., 2019), the dynamic capabilities framework (Mancha et al., 2018) or the business ecosystem approach (Heshmatisafa & Seppänen, 2023). The disruptive innovation theory has also been used on its own (Majamäki & Akpınar, 2014), combined with dynamic capabilities (Berglund & Sandström, 2017) or with the business ecosystem approach (Ansari et al., 2016). Finally, other researchers combine more than two frameworks, including, in some cases, a regulatory aspect as a very important antecedent for the startup's disruptive success (Badran, 2021; Dong, 2019; Herold et al., 2023; Leong et al., 2017).

Multiple case study approaches have also been used extensively to determine the antecedents for a startup's successful market disruption. Analysis based exclusively on the business model canvas approach is also used in the multiple case study case (F. Teoh et al., 2022; Gupta & Bose, 2022; Jahn & Bohnet-Joschko, 2023; Mattos & Novais Filho, 2023). Others combine aspects from the business model canvas framework combined with the disruptive innovation framework (Agyei-Boapeah et al., 2022; Habtay, 2012; Jin & Shin, 2020; Petzold et al., 2023), business ecosystem approach (Maulana et al., 2018; Rong et al., 2023) or regulatory focused aspects (Aversa et al., 2021). Finally, some researchers have focused solely on an entrepreneurial orientation (Hersleth et al., 2023; Pipiriene & Khayrzoda, 2021), business ecosystem (Etemad, 2023), or regulatory (Bullini Orlandi et al., 2021) approach.

Besides using innovation management frameworks to assess the disruptiveness of a company retrospectively, it is even more important to develop a framework that can predict whether a company will be disruptive. This lack of predictive power is after all one of the main criticisms against Christensen's disruptive innovation framework (Christensen et al., 2018; Markides, 2006). In that direction, Gularso et al. (Gularso et al., 2020) have tried to quantitatively identify predictors for disruptive business model innovation success among founders and executives of Indonesian startups. Their results identified continuous reconfiguration capability, strategic orientation variables, and stakeholder management variables as the most important predictors of disruptive innovation. The issue with this work is that since the startups are still in their early stage and although results are in line with certain theoretical frameworks, there is no way to predict if the approach followed by their founders/executives will indeed lead to success.

On the other hand, Herold et al. (Herold et al., 2023) have used a qualitative, historical single case study approach from the logistics industry to develop a digital start-up disruption framework with four antecedents. These antecedents were the initial target market, ecosystem framing, value creation, and regulatory agenda. The approach from Herold et al. combines both the idea that the initial target market is important for disruption as proposed by Christensen (Christensen, 1997) but also adds an important business model (Remané et al., 2022) and regulatory aspects in order to consider all the parameters that could have led to the company's success.

Compared to the case study approach, fewer researchers have tried to assess retrospectively the disruptiveness of a company by assessing certain quantitative data. In the logistics industry, the disruptive impact of a startup's multisided B2B digital platform was assessed by tracking the stock performance of two types of incumbent road freight logistics companies (Zhou & Wan, 2022). According to Christiansen's definition (Christensen, 1997), if a startup actually disrupts an industry, the incumbent will lose market share and therefore in this case there should be a negative impact on the main incumbent stock value. This approach can be useful to identify whether disruption occurred retrospectively but does not give useful insights on the management approach that led to the success.

Keeping the same focus on company value as an indicator of market disruption, Bock and Hackober (Bock & Hackober, 2020) have used the startup company's valuation as a metric to determine their database of what constitutes a successful and, therefore, potentially disruptive startup. Their work interestingly attempted to relate the success of a startup with the background, experience and strategic support of the initial investor and not the founder or manager skills as shown in other studies (Thakur et al., 2023; Turki & Rieg, 2023). They concluded that although there is not enough evidence to relate the background of the initial investor with the company's success, investor support and full strategic alignment with the founder's team are essential factors for the success of the company. They also define environmental, geographical and regulatory aspects of the business environment that each company operated in as important parameters that led to the company's success (Bock & Hackober, 2020).

By using return on sales and equity as performance metrics to assess the disruptiveness of a startup and define their dataset, Turki and Rieg (Turki & Rieg, 2023) concluded that the founder's experience is an important aspect of success but only if it fits to a certain firm, cycle and industry that is suitable for the specific digital platform.

Finally, when it comes to disruption within the digital domain at an industry and not a single company level, convergence of intelligence, convergence of technology, support from C-level executives, organizational cultures of innovation and managerial skills and experience were recently identified as important drivers that led to the disruption (Thakur et al., 2023) according to the definition of Christensen. This point of view supports the opinion that disruption needs to come from all the players of an industry and not one company.

3.4 Important Term Definitions

The concepts stemming from Table 3 analysis will be further analyzed in Chapter 4. However, as previously mentioned, there is, in many cases, confusion and interexchangeable use in literature of some important terms used at the intersection of digital platforms, startups, and disruption. Therefore, some additional important term explanations highly related to this work are given below to better define the scope of this work:

Digital Platform: The most commonly found definition in literature for the digital platform (from a management perspective) is that it is a technology-enabled business model that creates value by facilitating exchanges between two or more independent groups (Rochet & Tirole, 2004). Another interesting perspective is viewing the digital platform as a technology that an external innovator uses as a foundation to innovate and develop complementary products (Felicetti et al., 2023).

Digital disruption: In this work, digital disruption is defined as a situation in which a market entrant with a digital platform as their main product manages to change the competitive landscape of an existing or new market. Although sometimes the terms are used interchangeably in the literature, this work's definition does not include the digital transformation of incumbent organizations. More information on the theory of disruption is presented in Chapter 4.

Digital transformation entrepreneurship: The attitude and orientation of the creation of a new business or the development of an existing business by having at the core or embracing digital transformation as the continuous development and application of digital

knowledge for companies' value creation (Schiuma et al., 2022). In this work, only the aspect of the new business creation is considered relevant due to the scope of this research.

Marketplace: Marketplace is a category of digital platforms that support transactions between independent supply and demand side participants (Täuscher & Laudien, 2018).

3.5 Gaps identified in literature

The structured literature review revealed that there are multiple fragmented perspectives and little work combining all these different aspects into one framework that could explain and potentially predict a startup's disruption in the digital platform domain. The inability for a predictive framework is something that many scholars have given a lot of criticism (Markides, 2006). Even less attention has been given to identifying the crucial antecedents of disruption and the characteristics of disruptive digital platforms from the perspective of the start-up company (Herold et al., 2023) compared to the ones focusing on the incumbent's response.

Overall, many researchers agree that contrary to explorations on disruptive innovations in isolation in related literature, there needs to be a careful assessment of multiple stakeholders' perspectives across various evolution stages instead (Imam, 2022). That means, among others, that the whole ecosystem needs to be taken into account. It is still not known why some entrants succeed in securing cooperation with unaffected partners while others fail (Petzold et al., 2023). In general, the topics of multi-sided digital platforms operating within their own entrepreneurial digital ecosystem(s) is under-explored and deserve extensive scholarly research attention (Etemad, 2023).

Finally, when it comes to quantitative research and larger datasets, there is no unified approach and different performance metrics are used to assess whether a startup company has been disruptive or not. Therefore, the conclusions from these quantitative studies cannot be easily compared or extrapolated to other fields or geographical regions.

All the above observations lead to the conclusion that the development of a framework that can explain and potentially predict the disruptive potential of a digital platform startup at multiple levels and taking into account all dimensions of its strategy is critical.

4 Innovation Management Frameworks

In this section, the main concept ideas of the selected publications are further explained and analyzed. Some of the concepts overlap or are based on certain core theories, with the most important ones being disruptive innovation (Christensen, 1997), dynamic capabilities (Teece et al., 1997; Teece & Linden, 2017), and business model or business model innovation (Foss & Saebi, 2017; Osterwalder & Pigneur, 2010; Teece & Linden, 2017). However, when developing a framework, it is still important to examine certain additional aspects separately in order to draw more practical conclusions.

4.1 Disruptive Innovation

Disruption or disruptive innovation is a term that has caused a lot of interest and discussion among scholars since it was first mentioned by Clayton Christensen (Christensen, 1997; Christensen et al., 2006). The framework was initially developed to explain why very successful incumbent firms have failed to respond effectively to new entrants and technological change, resulting in major changes in an industry's competitive landscape.

Christensen developed the theory of disruptive innovation, initially only focused on the technological aspect, by examining the disk drive industry over multiple generations. This first study led to three major conclusions (Christensen, 1997; Christensen et al., 2018). The first was that technological advances could result in products that actually exceed the customer's needs, leaving room for smaller or new companies to serve that market segment at lower prices and with only the necessary features. The second was that market leaders tend to focus only on their high-end and most profitable customer needs, often ignoring any low-end or new markets. That enabled new entrants to target only these lower profitability and underserved markets initially. By gaining experience from these markets, the entrants could then improve their products and move upmarket eventually competing directly with the incumbent. Finally, the third observation was that investments in new innovations are often unattractive to incumbents who already have established business models and high margins in certain segments (Christensen, 1997). The same observations and patterns were subsequently made through more studies across different industries (Christensen et al., 2018), which led to the establishment of disruptive innovation as an interdisciplinary theory.

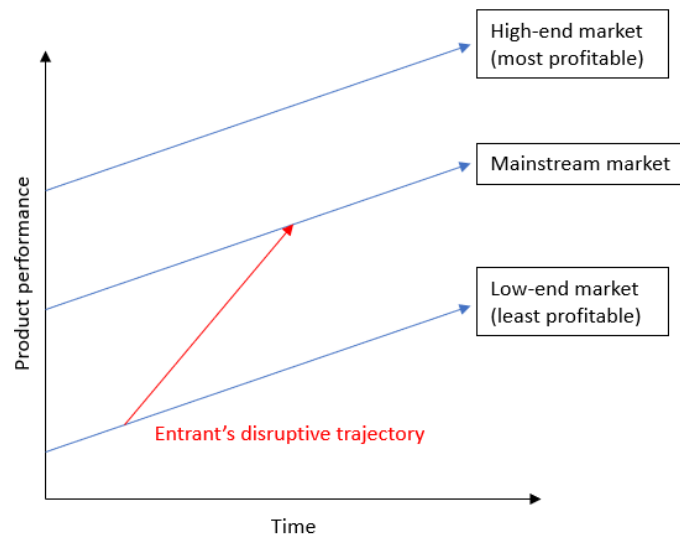


Figure 10: Initial model of disruptive innovation – figure adapted from Christensen et al., 2015

Over time, disruptive innovation theory has been criticized by many researchers, and modifications or additional concepts have been suggested. Sood et al reported that contrary to Christensen's theory, there is not enough evidence to support the hypothesis that targeting the low-end market increases the chances of disruption and that this type of market entrance is not only adopted by new entrants but most often by the incumbents themselves (Sood & Tellis, 2011). The same study, however, showed evidence that, in accordance with Christensen's theory, supported the hypothesis that using lower prices than the incumbent is the most important aspect that leads to higher chances for disruption (Sood & Tellis, 2011). Markides (Markides, 2006) pointed out that there needs to be a distinction between technology-driven product innovation and business model innovation. Other scholars have argued that another type of market entrance, starting from initially targeting high-end markets and moving downwards to mainstream markets, is also possible (Berglund & Sandström, 2017; Christian Sandström, 2011). One particularly interesting point of debate among researchers was whether disruptive innovation could only be observed after its occurrence or whether there is a framework or model that could predict the disruptive potential of a firm before its occurrence (Christensen et al., 2018; Markides, 2006).

To assess whether a company has caused a disruption based on Christensen's definition of disruption, the initial target market strategy of the company needs to be assessed.

4.2 Business Model Innovation

There are many different approaches in literature when it comes to defining what constitutes a business model. One of the most widely used definitions is the one from Osterwalder and Pigneur, according to which "A business model describes the logic of creating, delivering, and capturing value by an organization" (Osterwalder & Pigneur, 2010). Another, more applied and frequently adopted definition is that: "A business model demonstrates how a business creates and delivers value to customers and outlines the architecture of revenues, costs, and profits associated with delivering that value" (Teece & Linden, 2017).

According to Osterwalder and Pigneur, a business model can be broken down into nine key elements which led to the creation of the business model canvas as a tool for the successful design of a company's business plan (Osterwalder & Pigneur, 2010). A schematic representation of all nine elements from the business model canvas according to this approach is shown in Figure 11 below:

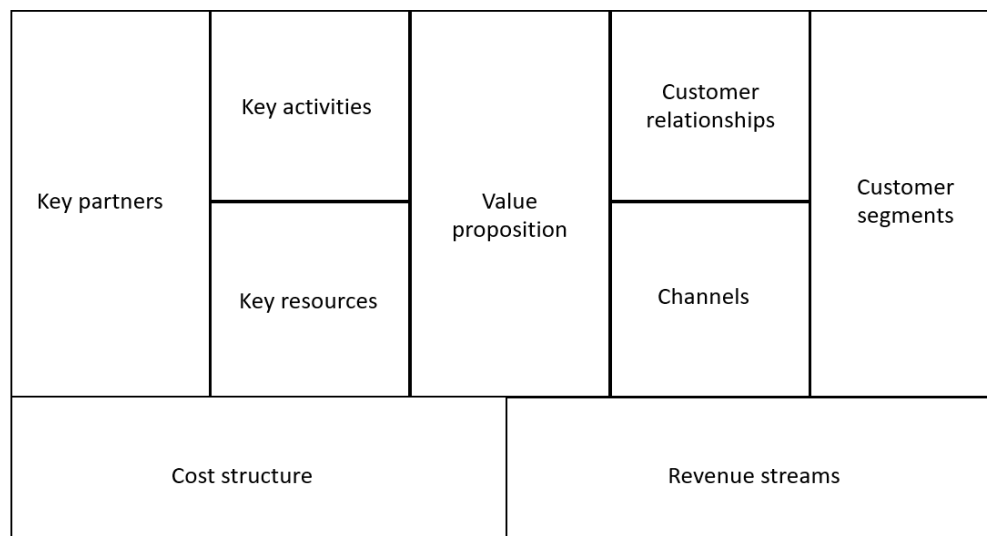


Figure 11: Elements of the business model canvas tool – figure based on Osterwalder & Pigneur, 2010

The elements from the business model canvas can essentially be summarized into four essential dimensions, namely the value proposition, value creation, value delivery, and value capture (Günzel & Holm, 2013). These four dimensions are of particular importance when understanding disruption achieved via digital platform startup companies from the perspective of business model innovation (Reis et al., 2022). In these cases, it is assumed that the competitive advantage that differentiates the company does not come solely from

its products or services but rather from an innovative business model. A nice review on the topic of business model innovation was made by Foss and Saebi (Foss & Saebi, 2017). Each of the combined four dimensions used in this work is further discussed below.

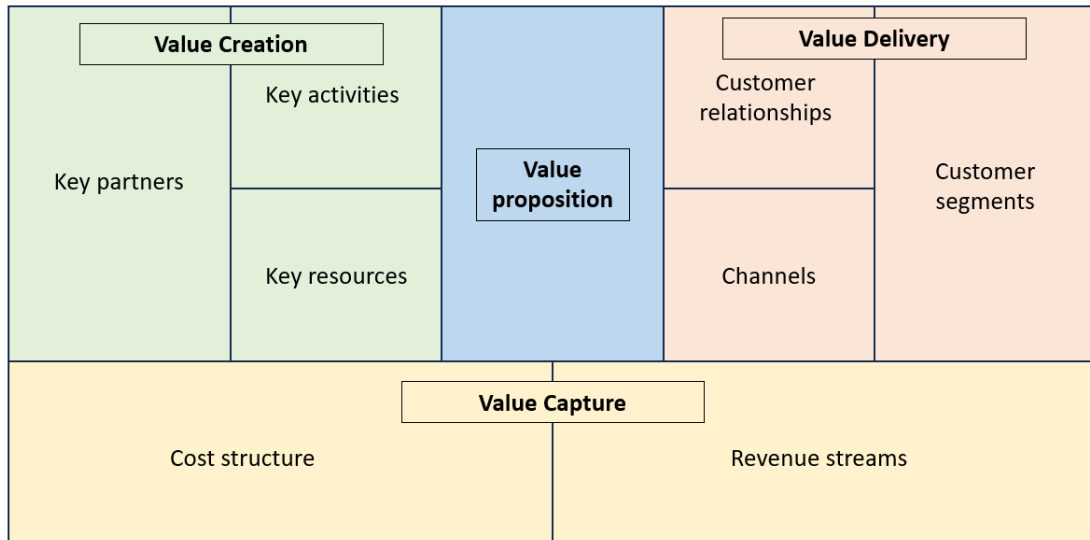


Figure 12: Combining classic business model canvas elements into four key dimensions -figure adapted from Reis et al., 2022

4.2.1 Value Proposition

The value proposition dimension is at the core of every business model and can be defined as the value-adding characteristic of the product or service that a company offers (Günzel & Holm, 2013; Osterwalder & Pigneur, 2010). Every company communicates a clear and easy-to-understand statement through which the customer can understand the unique benefits of the company's products or services.

4.2.2 Value Creation

According to a more traditional approach, value creation refers to the process of developing a structure that creates and ensures feasible distribution of the company's offering. Although Christensen had already implied that disruption depends on the type of value creation the company is aiming for, most research work simply uses value creation as one of the components that can describe a company's business model. There is very limited work that directly focuses on explaining in depth which aspects of value creation led to a disruptive process, especially from the perspective of a startup company (Herold et al., 2023). Habtay (Habtay, 2012) has specifically focused on what is the impact of value creation on the longer-

term disruptive potential of the company by distinguishing between disruptive technology-driven and disruptive market-driven innovations within the context of value creation.

Market-driven disruptions occur through specialization and minimization of complexity in the downstream activities in an old model (Habtay, 2012), thereby providing disruptive market-driven entrants to create value that is close to Christensen's definition of a 'good enough' product that can satisfy the underserved customer segment therefore eventually leading to a market disruption and an increasing market share (Christensen et al., 2015). According to Habtay, in market-driven innovations, there is easier and more rapid gaining of market share at the beginning; however, there are also more options for the incumbent to counterattack the disruption due to a lack technological superiority barriers.

On the other hand, technology-driven disruption refers to start-ups that invest heavily in upstream R&D activities, resulting in a new technology that the start-up can then use to exploit new market opportunities. In this case, the potentially not even good enough product stemming from this new technology is what the company uses to enter the market. In the case of technology-driven disruption, where the value creation process is driven by new technology, gaining market share is more challenging initially. However, this approach is, according to some researchers, more likely to be sustainable in the long run, as the incumbent has more difficulties responding due to the creation of an entirely new business model with higher technological barriers (Habtay, 2012; Herold et al., 2023; Markides, 2006).

4.2.3 Value delivery

Value delivery covers the resources required to deliver the promised customer value effectively. These resources include both technical aspects required for such delivery but also communication and distribution channels to reach each customer segment effectively.

4.2.4 Value capture

Value capture refers to the way a company capitalizes its offered value. This dimension is of particular importance when it comes to digital platforms, which very often manage to gather a great number of users; however, they are not able to make a profit by capitalizing on the created user base. Cost and revenue structure are essential elements of the value capture dimension.

4.3 Dynamic Capabilities

Dynamic capabilities is a term first mentioned by Teece (Teece et al., 1997) in an attempt to explain how a firm achieves and sustains a competitive advantage given path dependencies and market positions. The term is defined by Teece as “the firm’s ability to integrate, build and reconfigure internal and external competencies in order to address rapidly changing environments.” It is based on the notion that a firm’s competitive advantage lies primarily within the ability of a firm to effectively adapt its competencies (internal and external organizational skills, resources and functional competencies) to the rapidly changing business environment. Until that time, most popular management theories focused either on economic profits from successful product market positioning (Porter, 1980) or solely on firm-specific asset resources combined with game theory (Shapiro, 1989).

The dynamic capabilities framework is still widely cited by scholars today and was the basis for the development of many more future frameworks related to innovation and strategic management, as described in the following sections.

4.4 Ecosystem dynamics

Business ecosystems that bring together multiple players of diverse types and sizes are able to create, scale and serve markets in new ways that are beyond the capacity of any single firm or traditional industry. Since 2015, more than 300 ecosystem startups have obtained unicorn status while being part of an effective ecosystem (Alet, 2023). The network effects of ecosystems can create a potent competitive advantage for a startup company because they cannot be copied by the incumbent as easily as a single digital platform technical infrastructure (Denning, 2021).

Ecosystems are defined as a network of independent organizations linked to or operating around a focal firm or a platform (Herold et al., 2023). Etemad has given a more detailed definition of entrepreneurial ecosystems in particular, being a self-sustaining digital network connecting many agents (e.g. buyers, suppliers and service providers), factors (e.g., resources, goods and services), and forces (e.g., institutional and environmental advantages, incentive and deterrent). All these agents are capable of generating significant network externalities effects (Etemad, 2023) which are especially crucial for the success of startups with digital platforms.

As previously mentioned, the idea of ecosystem dynamics from the perspective of business ecosystem-oriented business models has gained increasing traction in literature (Rong et al., 2023), although it is largely outside the scope of Christensen’s disruptive innovation theory. There are many ways to define what is meant by an ecosystem built around a startup company or around a digital platform. A properly built ecosystem is essential in the case of digital platforms as it can make both competitors and customers contributors of the value creation process and therefore lead to enhanced network effects (Denning, 2021). Snihur et al. (Snihur et al., 2018) identified the concept of “disruptor’s gambit,” which combines theories of business model innovation and dynamic capabilities to explain the process of ecosystem creation. According to this work, the market entrant reveals its intentions early on to the incumbent and the market through effective framing. This early reveal enables quick and early adaptation of its business model so that it can satisfy the ecosystem’s needs. These processes generate a virtuous framing-adaptation cycle, where feed-forward and feedback enable rapid response to customers and incumbents while engaging them as force multipliers during new ecosystem creation (Snihur et al., 2018).

Developing an effective ecosystem is a research topic on its own. Josep Alet has developed a model for the development of an effective ecosystem based on four main strategic axes. These axes, represented in more detail schematically in Figure 13 below, include entanglement with customers, value sharing within win-win agreements, organizational entrepreneurship alignment, and smart and continuous learning (Alet, 2023).

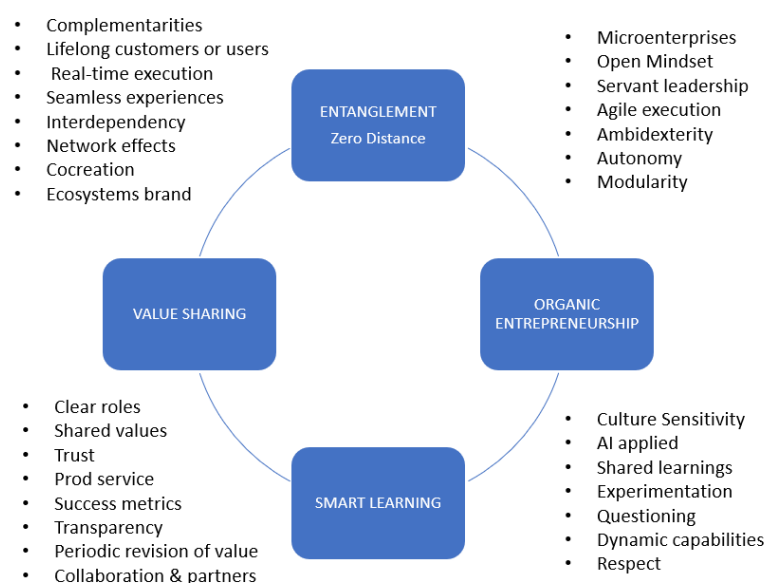


Figure 13: Business ecosystem model –figure adapted from Alet, 2023

Finally, Ghezzi (Ghezzi, 2022) reported the concept of competitive empathy and the dynamics it can create within an ecosystem. Competitive empathy is defined as the cognitive and emotional enabler for different kinds of interactions with competitors ranging from simple recognition of common interests for lobbying purposes to coopetition dynamics, long-lasting partnerships and alliances and collective transformation of industries and markets (Ghezzi, 2022). When used correctly, competitive empathy can lead to important synergies and complementarities that can help the growth of the company especially at its initial stages.

Despite the increased interest on the concept of ecosystem dynamics from a theoretical and incumbent point of view, very limited studies have specifically investigated the disruptive potential of the ecosystems behind market intermediary platforms from a start-up perspective (Herold et al., 2023) or linked the importance of ecosystem creation with the original disruptive innovation concept of Christensen (Ansari et al., 2016).

4.5 Entrepreneurial orientation and entrepreneurship skills

Entrepreneurial orientation (EO) is recognized as a behavioral phenomenon from which smaller businesses usually have a greater performance effect, as they are more flexible and quicker at taking advantage of new opportunities. EO can be defined as the process, practice, and decision-making that lead to new market or business opportunities (Hersleth et al., 2023). Most studies highlight a three-dimensional conceptualization of EO, using innovativeness, proactiveness, and risk-taking but also, passion and perseverance as important EO dimensions. Hersleth et.al have connected EO with market-driving practices and the market expansion results (Hersleth et al., 2023) as shown schematically below:

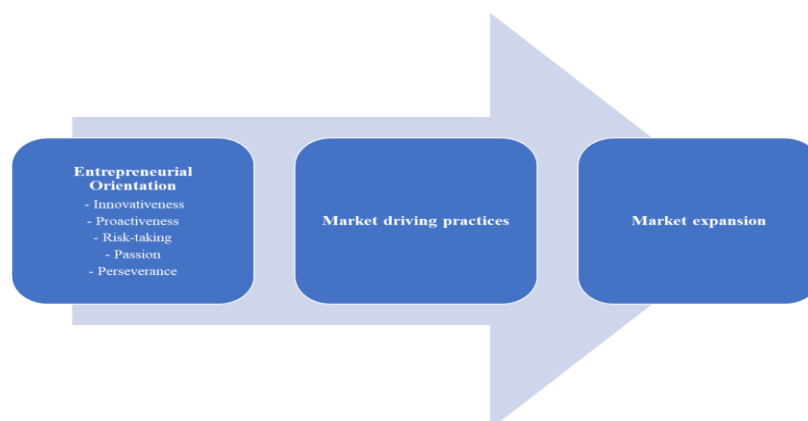


Figure 14: Conceptual framework of the study illustrating the connection between EO, market-driving practices, and the resulting market expansion, figure adapted from Hersleth et al., 2023

Following the EO framework and by conducting four case studies of startups within the food industry, the authors identified four main disruption-leading themes of market-driving practices influenced by the founders EO (Hersleth et al., 2023):

1. Taking the risk and following their passion even if that means going against the grain
2. Innovativeness led by a passionate personal value proposition
3. Proactively and perseveringly building a new category

To conclude, the EO of the founding team is considered by some researchers a potential competitive advantage as part of the firm's internal capabilities. Therefore, it is taken into account in this work as a factor of a potentially disruptive strategy framework.

4.6 Regulatory agenda and infrastructure

The majority of literature discussed so far is focused on start-up companies operating in free markets. However, in some cases, operating in regulated markets, such as healthcare, can be one of the primary reasons for disruption. According to some researchers, Uber's disruption does not fulfill the criteria of classic disruptive innovation theory but was still achieved due to regulatory gaps that created barriers for the traditional taxi industry (Aversa et al., 2021; Christensen et al., 2015). Digital startups may take "disruptive" entrepreneurial actions utilizing digital platforms to overcome the regulatory inhibitors and barriers that exist in the industry, leaving the incumbent unable to respond due to unmanageable legal or regulatory constraints leading to a so-called "policy disruption" (Biber et al., 2017).

By combining dynamic capabilities theory (Teece et al., 1997) with regulatory barriers, Dong proposed three process mechanisms towards the success of a healthcare startup with a digital platform operating in a highly regulated environment (Dong, 2019). He described how demand-driven disruption can occur when the digital platform is used to address customer issues stemming from existing regulations. However, addressing this need is not enough and needs to be accompanied by fast digital adaptation in order to quickly change platform's features in response to consumer needs as well as continuous digital transplantation capabilities (Dong, 2019). Continuous digital transplantation can be defined

as the ability of a company to continuously repurpose its digital platform so that it can capture and capitalize on entrepreneurial opportunities beyond its initial intents.

However, policies and regulations can also create significant barriers for multi-sided digital platform startup companies that want to create an entrepreneurial ecosystem to generate network externalities. SMEs, and especially the ones that aspire to have global operation need a highly conducive and supportive regulation and policy environment(s) that allows the adoption of new technologies for gaining higher capabilities to compete globally effectively (Etemad, 2023).

It can be concluded that the regulatory environment can provide both opportunities and significant barriers for the entrepreneur, and therefore, it is an important dimension that needs to be taken into account when discussing the disruptive potential of a company and its business model. In such cases like the ones described above, a regulatory agenda dimension can help to understand or even predict why a certain business model innovation becomes (or fails to become) disruptive.

4.7 Product market vs market for ideas

The product market vs market for ideas framework was originally developed by Joshua Gans and Scott Stern (Gans & Stern, 2003) who built upon the dynamic capabilities' concept (Teece et al., 1997). The goal of the framework was to identify the main drivers behind a startup's commercialization strategy along with this strategy's implications for industrial dynamics, in an effort to explain why certain entrants in some environments disrupt incumbents, while others cooperate with them and reinforce existing market power.

Four distinct commercialization recommendations can be formed based on the answers to two main questions, as depicted in Figure 15. The first question is whether the incumbent's assets, infrastructure or capabilities are an essential prerequisite for the value proposition, marketing or successful implementation of the new innovation. The second question is whether the new innovation developed by the entrant can preclude any development by the side of the incumbent (Gans & Stern, 2003).

<i>Can innovation by the startup preclude effective development by the incumbent?</i>	<i>Do incumbent's complementary assets contribute to the value proposition from the new technology?</i>		
		No	Yes
	No	The Attacker's Advantage	Reputation-based Ideas Trading
	Yes	Greenfield Competition	Ideas Factories

Figure 15: Product market vs market for ideas framework – figure adapted from Gans & Stern, 2003

If the answer to both questions is no, then the entrant is in the quadrant of the “Attacker’s Advantage” and should focus on full exploitation of technological leadership which is expected to eventually lead to market leadership without the need for contracting with established firms. On the contrary, if the answer to both questions is yes, then the entrant is in the quadrant of “Ideas Factories” and should focus on collaboration with established firms since otherwise market entry is very costly. In between, there is “Greenfield competition” in which the entrant is expected to have temporary monopoly due to technological superiority of the product and “Reputation-based ideas trading” in which the entrant has opportunities for contracting and there are risks related to imitation and high costs.

The product market vs market for ideas framework is often an alternative explanation for disruption not fulfilling Christiansen’s disruptive innovation criteria when analyzing a company's initial target market.

4.8 Transilience map

Another approach (alternative to Christensen’s disruptive innovation theory) that tried to explain why incumbent companies failed to respond to innovative entrants was the transilience map framework originally developed by Abernathy and Clark (Abernathy & Clark, 1985). Abernathy and Clark identified two main dimensions based on which the strategic positions of incumbents and new entrants can be assessed. These two dimensions were the technology and production competencies as well as the market and consumer linkages and how the innovation brought by the new company is connected or depended on these two aspects.

Based on these two dimensions, four distinct quadrants can be created, as depicted in Figure 16. Regular innovation is the quadrant in which the innovation depends or builds upon technology and production capabilities which already exist in the incumbent organization. At the same time, the target customer segments come from markets that are already familiar to the incumbent. In that quadrant, challenging the incumbent might be in most cases challenging for a start-up company.

Completely on the opposite side, on the top right quadrant, there is architectural innovation. In that segment the new innovation is completely unrelated to existing production or technology competencies of the incumbent and the initial target market is unfamiliar to the incumbent, requiring the creation of new customer linkages for both sides. Therefore, this category offers the most promising strategic conditions for a start-up company and presents the most challenges for the incumbent to effectively respond.

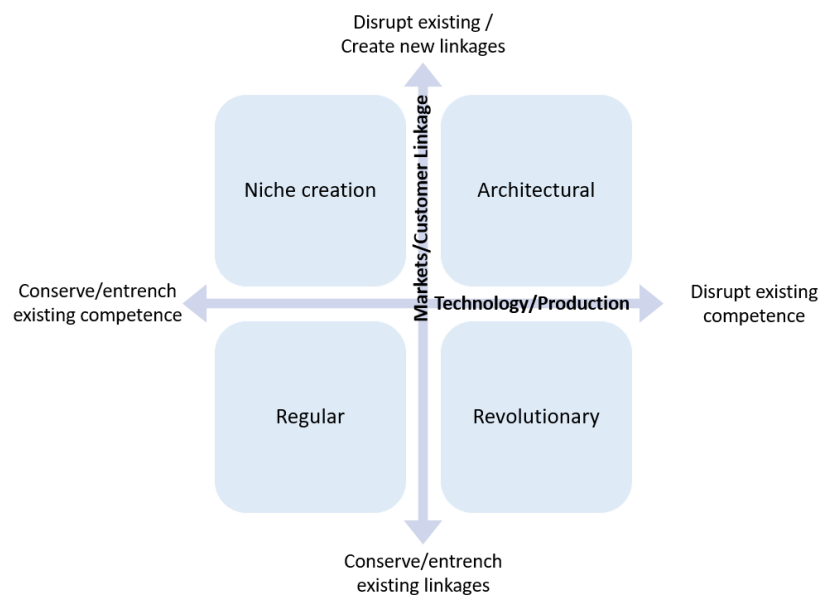


Figure 16: Transilience map framework – figure adapted from Abernathy & Clark, 1985

In between, there are two more categories, namely revolutionary innovation and niche creation. Niche creation refers to a situation where the new innovation requires or maintains the existing production or technology competencies of the incumbent, but the product's target market is unfamiliar to the incumbent. Revolutionary innovation on the other hand, refers to innovations and products that target the incumbent's most familiar market, however, they overturn incumbent's technology or production capabilities. In both of these cases, the incumbent is facing a challenge to either deal with an unfamiliar market or build

new production/technology competencies, while still maintaining its competitive advantage on the other dimension.

The transilience map framework is particularly useful for enabling decisions related to a company's market entry. By analyzing its dimensions, the factors that could enable or constrain market entrance in a particular industry can be determined (Thomas & Maine, 2019).

4.9 Suggested framework based on literature research

The outcome of the structured literature review is a management framework that can assess the disruptive potential of a startup company based on its strategic decisions. It was concluded that a modified version of the startup digital disruption framework proposed by Herold et al. (Herold et al., 2023) with the addition of antecedents that were found relevant based on the structured literature review can be used for that purpose. Some of the concepts from Table 3 are combined together for simplicity and because there was an overlap between them. The aspects of the suggested framework, along with some short explanations for each, are summarized in Table 5 below. The framework will be applied to an actual single case study of a digital platform startup in Chapter 5.

Table 5: Framework to assess the disruptive potential of a startup company – based on a combination of this work's structured literature research and the work from Herold et al (Herold et al., 2023)

Initial Target Market	Assessing disruptive potential based on initial target market/ market entry strategy following Christensen's disruptive innovation framework (Christensen et al., 2018; Herold et al., 2023; Thomas & Maine, 2019) but also product market vs market for ideas (Gans & Stern, 2003) and transilience map (Abernathy & Clark, 1985) theories.
Value Proposition	Assess what the company's unique value proposition is. Can that be a differentiating and important factor/competitive advantage for the company? (Günzel & Holm, 2013; Osterwalder & Pigneur, 2010)
Value Creation	Examine whether the startup company has a market-driven or a technology-driven innovation (Herold et al., 2023; Osterwalder & Pigneur, 2010).

Value Delivery	Necessary resources to effectively deliver the promised customer value. Decide on critical metrics that should be used to measure success. Includes the technical resources required for the delivery (Osterwalder & Pigneur, 2010).
Value Capture	Especially in digital platforms, maintaining user critical mass is what people focus on; however, without finding an effective value capture mechanism, the company will fail at some point. Can the value capture approach of the startup company be sustainable in the long-run? (Osterwalder & Pigneur, 2010; Täuscher & Laudien, 2018)
Business Ecosystem and Ecosystem Framing	Assessment of a firm's disruptive potential from the scope of ecosystem framing creation (Denning, 2021).
Firm's Internal Capabilities	Assess disruptive potential from the scope of dynamic capabilities and entrepreneurial orientation concepts (Berglund & Sandström, 2017; Thakur et al., 2023). Examine whether the founder's or investors' backgrounds and skills can become a competitive advantage for the firm.
Regulatory Agenda & Infrastructure	Assess whether the startup company has a business model that challenges or exploits gaps in existing regulations that protect the incumbent industry firms (Dong, 2019; Herold et al., 2023). Assess whether the existence or lack of infrastructure at the local market can be a competitive advantage for the company (Badran, 2021).

5 Case Study

A single case study methodology was used to examine the proposed management framework in practice. Case studies are particularly helpful in understanding rapidly evolving phenomena such as disruptive innovations by startups (Yin, 2018). Although a single case study of a successful startup is definitely a case of an outlier and not the average, it can still offer valuable insights into the phenomena under study. The case study was built by collecting secondary data on the founding, expansions, and strategic decisions of a startup named Treatwell, which developed a platform for booking beauty services appointments online. The analysis and discussion of the company's strategic decisions were based on the proposed framework resulting from the literature review.

5.1 Overview of the company

Treatwell is Europe's leading booking platform for hair and beauty services available through a website and a mobile app. They currently operate in 13 countries, working with over 40,000 salon partners with the mission to digitally revolutionize the hair and beauty community (*Treatwell's Official Website*, 2024). The offerings to salons include features for scheduling appointments, setting menus and pricing, email notifications, marketing and access to customer data which are relevant for them to increase their efficiency. The offerings to customers include the availability to book appointments digitally at any point of the day, filter salons depending on their preferences, and easily compare different services (*Treatwell's Official Website*, 2024).

The first of the companies that currently constitute Treatwell was founded in 2008 in London by Lopo Champalimaud under the name Wahanda. The idea was to "create an open table for spas and salons." As the founder has mentioned, "It was surprising that you can book everything in your life online, but you can't book your hair and beauty" (Hebel & Champalimaud, 2016). A unique aspect of founding such a company was that, surprisingly, there was no US equivalent model or start-up success story yet for this market, so everything had to be developed from scratch. This aspect also increased the risk for the implementation of such an idea.

Initially, the company's business model and revenue heavily relied on a daily deal business structure which was very popular at that time. However, it became obvious that this business will soon reach a plateau and will not be sustainable in the long run. Therefore, Lopo and

his initial investors decided to start developing a booking system platform on the side. That way, once the daily business was fully built up and plateaued, the booking system model would be ready to take over. However, developing such a booking system was not straightforward at that time. Additionally, the two sides of the business were conflicting. The daily deal business, although it was the only revenue source for the company, meant that the salespeople had to go to the same salons and offer two completely different value propositions, which was confusing for both the salon owner as well as the sales team members. On top of that, every new funding from investment rounds, which was already limited, had to also be split between both aspects, which made things less efficient for the booking system development.

A critical moment for the company was February of 2012. During a board meeting a discussion on how to scale up the business was taking place. A degradation of the daily deal business economics was already clear (Hebel & Champalimaud, 2016). This is why Lopo had the suggestion to completely stop with the daily deal business, despite the fact that it was the only source of revenue. Six months later the daily deal business was officially stopped and the booking system platform was launched. During the transition, it was a difficult year because the company performance remained flat, as one business aspect declined and another one was picking up. In the middle of this transition, Lopo also found a Lithuanian company named Salonium, which had developed a salon management software and suggested its acquisition. The initial investors agreed to take the risk and proceeded with this plan, showing a very good strategic alignment of the company's management with their investors when it comes to long-term growth. The acquisition of Salonium and the team it came with was a critical point of the company's transformation and product improvement, according to Lopo (Hebel & Champalimaud, 2016).

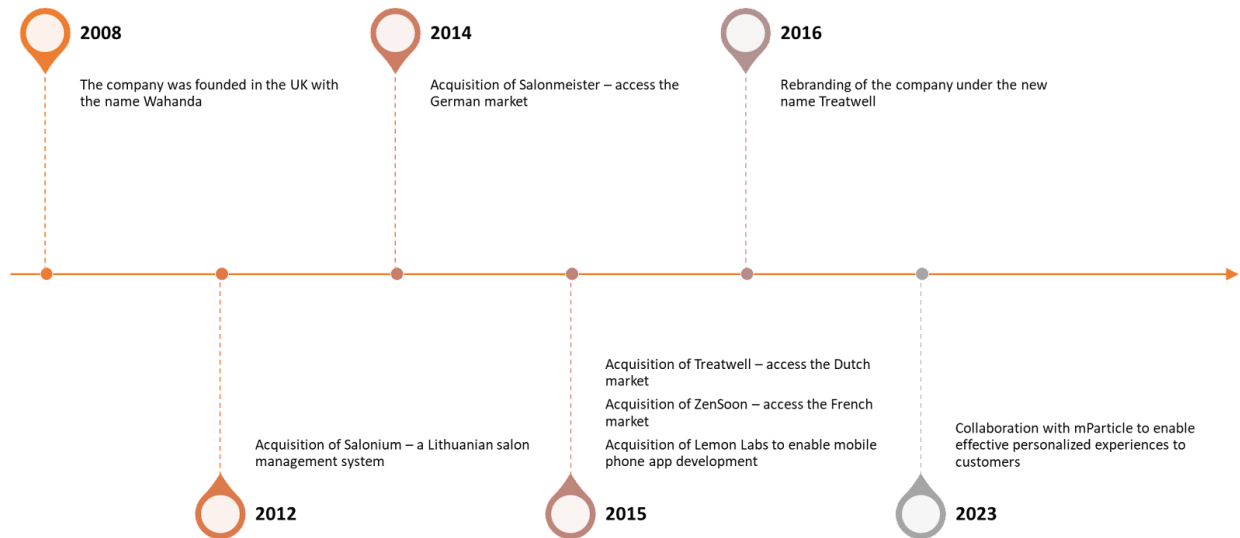


Figure 17: Timeline with important milestones of Treatwell's entrepreneurial journey

In 2013, Wahanda started to explore how to expand to other European markets which was essential for the scale up of the company. First step was the expansion to Germany through the acquisition of Salonmeister in 2014. Then in 2015, rapid expansion in the Dutch and French market followed through the acquisitions and merger with Treatwell and ZenSoon respectively. The management of Wahanda quickly realized that besides rapid expansion, it was also crucial to develop a mobile platform for the booking system. This is why during 2015, the company also acquired Lemon Labs, a company that had the necessary expertise in this domain.

In 2016, a major rebranding took place, and Wahanda was now renamed Treatwell, which is the name they still have up to this day. A timeline containing some of the important milestones of the company's foundation and development is presented in Figure 17.

5.2 Pricing structure overview

This section will only refer to the pricing structure of the booking system business model, as this is the one that eventually became the only value capture structure of Treatwell's business model. Initially, both Wahanda and all the acquired separate companies used a commission-based revenue model. The CEO of the (initially Dutch) Treatwell mentioned during an interview back in 2013 that *"a salon owner who wants to be included in the*

platform pays 199 to 399 euros in start-up costs. In addition, they pay a 15 percent commission on each transaction booked through the platform” (Herwin Thole, 2013). At the same time, Wahanda in the UK was charging a 20% commission for every transaction. The same revenue model was maintained by Wahanda after the merge, with the UK region having a commission of 20% from every booking, whereas other markets maintained a 15% commission for every booking.

This pricing structure, although extremely common among marketplaces, was not sufficient for Treatwell. After in-depth research, trial and error, and a lot of feedback from their salon partners, the company decided to go completely commission-free by developing a so-called smart business model across all markets. According to this pricing model, Treatwell gets 35% commission for every new customer booking but there is 0% commission or processing fee for any repeat or widget bookings for in-salon payments. Only if the customer prepays online is there a 2% processing fee for any repeat or widget bookings.

The reasoning behind this switch is related to the company’s long-term growth plan mission. According to Treatwell, their goal is that every salon business owner who is part of their ecosystem is building his/her business in the best way possible. If Treatwell’s ecosystem and marketing efforts are bringing a new client to the salon business for the first time, then the commission is charged. However, when a one-time booking becomes a repeat customer or finds a salon directly, then no commission is charged because that is a reflection of the salon owner’s good work.

5.3 Discussion

5.3.1 Initial target market

As Treatwell’s platform was a multi-sided one, there were two sides of customers that the company was targeting in all regions, the consumer side (demand) and the salon or service provider side (supply). From the consumer perspective, the initial target market for Treatwell were people who were already looking for shopping or other type of services other than beauty (etc. food delivery, taxi) online (Boeckel, 2024). This customer segment was at the time underserved and overlooked by most beauty services providers, who were still making appointments via the phone or less commonly their own website. From the salon perspective, it was initially more challenging. Established and more popular salons already

had their customer base, so they were not easy to convince. On the other hand, smaller or new salon owners needed any type of support and advertisement they could use and therefore these owners were the initial targeted market from the side of service providers. In all cases, salon owners were used to offline pen and paper way of making bookings. In the Dutch market, around 2012, only 50% of venues had a website and surprisingly 98% of the venues did not even have an online booking solution (Boeckel, 2024).

Treatwell made the decision to initially target the underserved customer segment that wished to make their beauty services appointments online. *“We understood this was a two-sided marketplace with two parties to be served to their needs: supply (venues/salons) and demand (consumers). We believed that we need to focus on the consumer first, under the assumption that having access to demand, and their wallet will open up appetite and doors of supply. Not the other way around”* (Boeckel, 2024).

Another important aspect of the initial target market for such a business was location, as developing very locally was critical. *“We started in Amsterdam but not until we had 150 venues live on the Treatwell platform in over 10 verticals (hair salon, nail studio, massage salon, yoga studio, personal trainer, botox etc) and a huge multi-channel marketing campaign that created brand awareness to our target audience (consumers) and initiated demand from the start with free bookings”* (Boeckel, 2024). In a different media interview, Laurens Groenendijk, CEO of the Dutch Treatwell, also said in the past: *“This is a hyperlocal business. You have to grow one city at a time and have a local offering. Subsequently, it is relatively easy to rank high in Google”* (Herwin Thole, 2013).

The initial target market choice of Treatwell is in line with the traditional definition of disruption according to Christensen (Christensen, 1997). Although, there was not exactly a market leader in the digital space, the initial target customer segment from Treatwell was one underserved segment which was however not the main customer of the salons at that time.

From the perspective of the transilience map framework, Treatwell initially had the strategic goal to create new customer linkages for both the demand and the supply chain side. The technological competencies required for that were existent to some extent, as will be discussed below, however, there were still improvements needed to fully meet the technical requirements for the market. Therefore, the company's market entry strategy could be positioned between the architectural and the niche creation segments of the transilience map.

5.3.2 Value Proposition

Treatwell's mission has always been to digitally revolutionize the hair and beauty community (*Treatwell's Official Website*, 2024). As previously mentioned, the offerings to the service providers side (supply) include:

- Features for scheduling appointments
- Setting menus and pricing
- Email notifications
- Marketing and promotion
- Access to customer data which are relevant for them to increase their efficiency

The offerings to customers side (demand) include:

- Availability to book appointments digitally at any point of the day
- Filter salons depending on their preferences
- Easily compare different local services and offers

5.3.3 Value Creation

Treatwell's digital platform was initially a primarily market-driven rather than technology-driven innovation. The founders identified an underserved customer segment and created a platform that could serve that need. Later though, and through both internal development as well as mergers and acquisitions, the company developed superior technological capabilities.

5.3.4 Value Delivery

To deliver the promised value to both sides of the two-sided market, Treatwell needed to develop its digital platform according to the specific market's requirements and promote its use properly. As already mentioned, there was no US equivalent model or start-up success story yet for this market (Hebel & Champalimaud, 2016). However, the Booking.com and JustEat models which were already available could be applied with some modifications.

There were still some important technical challenges that needed to be solved. The platforms were similar in the sense of aggregating local supply online, however, they had very different demands when it comes to capacity, booking-horizon and customer loyalty. *"For Booking capacity is fixed. A room is available or not. Horizon is from tonight until roughly*

8 months from now and loyalty is none. For next week you need the right hotel at the right location and price in London and for next month a similar request for Rome. There is no connection between the consumer and the venue (demand and supply). For JustEat capacity is unlimited. A pizza is ordered and will be put on top of the current order process to be delivered somewhere within 60 minutes. If is busy, delivery time will be 60 minutes, if the kitchen is not busy, it will be delivered in 15 minutes. The horizon is today in the next 60 minutes. Not possible for tonight or tomorrow. There is a preference for a dish and also for some restaurants, but there is more loyalty for the platform rather than individual supply”(Boeckel, 2024).

For Treatwell things were much different. The capacity was not fixed but rather hybrid/dynamic. *“Sunday and Monday closed, On Tuesday only the owner was working. Wednesday a team of 3 and Thursday, Friday, and Saturday there were 8 staff working. Regardless of the venue capacity of 6 chairs. On top of that, the service was highly dependent of the staff. One person only doing coloring, one person doing curls, another person specific styling, and in many times a booking required over 3 persons plus 45 minutes of drying time. The booking horizon was primarily for the next 3-4 days and 1 month”* (Boeckel, 2024).

Due to these unique characteristics of the market, the booking process was not fully automated. *“They receive an order and can either refuse it or accept it. Basically, they should always say yes, because they have indicated that they are available. Otherwise, they have provided us with false information. If they refuse an appointment, one of us will call. There is a clear human step in between. Anyone who thinks you can fully automate this is wrong”* (Herwin Thole, 2013).

The key to developing a proper platform was therefore, being in close contact with the service providers and maintain simplicity for both the customer and the salon owners. As the company in different regions grew, multiple mergers and acquisitions (e.g. Salonium, mParticle, Wavy) provided Treatwell with additional expertise on the development of the booking system platform, the SaaS salon automation software and the mobile application and even more personalized customer experience. This expertise offered a technological advantage as well.

Proper promotion and gaining a critical mass of both customers and service providers was also critical to achieve the promised value delivery. Scale, conversion, customer success, online marketing and a big field sales force were critical aspects for building the brand and

critical mass from both sides of the platforms (Boeckel, 2024). Laurens Groenendijk, CEO of the Dutch Treatwell said in an older interview: *“If you ask me where most of the marketing budget goes, I would say: Google, Google and Google”* (Herwin Thole, 2013).

5.3.5 Value Capture

Contrary to other popular booking platforms (e.g. Uber), Treatwell left the pricing control entirely on the discretion of the service providers and initially adopted a commission-based revenue model combined with some upfront startup costs that service providers had to pay. By doing that, the service providers had to choose whether to increase the prices or decrease their margin instead. There was no clear price that the customer paid to the platform.

Although commission-based models are standard for marketplaces, determining the commission value is very important especially at the beginning. In the Dutch market, commission-based model of 15% on every online booking made via our app or website, paid by the venue was implemented. Exception was the UK market for which the commission was 20%. Bookings made via the Treatwell booking widget on the venue’s own website where without commission. The initial assumption was that for a two-sided marketplace and based on the commissions seen at JustEat and Booking.com, a range of 20-40% per booking would be reasonable. The choice to be on the lower end/below the range, was based on the belief of the founders that their market *“had a more repetitive/loyal and personal character as compared to the other platforms”* (Boeckel, 2024).

In the Dutch market, it was quickly obvious that the platform brought value both to customers (who thought this was a great idea to begin with) but also to the service providers. *“Some venues even recorded 7 new customers in their first week after joining. Knowing that the customer lifetime value in the beauty industry is about €3000, an initial investment of 6€ - assuming an average booking value of 40€ - was considered a bargain!”* (Boeckel, 2024).

Despite the value the platform brought to the supply side, Treatwell founders quickly realized that service providers were not very satisfied with the paid commission rates, especially for the ones regarding customer they already served in the past. Therefore, they decided to experiment with different models and make a distinction between new and existing behavior. That led to a model with 30% commission for every new first-time customer booking that was made with a service provider. However, for every recurring

existing customer booking there was between 0-5% commission (Boeckel, 2024). The zero-commission approach for recurring bookings was eventually adopted in all the countries that Treatwell operated in.

Much later, and after the company's founding team made an exit and sold to Recruit Holding, *"Treatwell SaaS solution salon automation software became so good that, under pressure of the market and competition, around the year 2018, a subscription model was introduced with a monthly fee, next to the marketplace model with a commission over bookings made on the Treatwell platform"* (Boeckel, 2024).

Today, the initial founders team is no longer actively involved with the company. However, constant adjustment of price structure and value capture mechanisms is still performed by Treatwell. *"The marketplace model had been misunderstood after the founders left, for the wrong reasons hold as expensive, but with a deeper dive in the data clearly has shown huge potential and as such will receive higher strategic priority again in the near future"* (Boeckel, 2024).

5.3.6 Ecosystem Framing

The development of a successful ecosystem was of high importance within the strategy of Treatwell, as expected from a digital platform company. Their approach in building a successful ecosystem used many characteristics from the model of Alet (Alet, 2023). Treatwell aimed to build a very strong brand from the beginning, through expensive marketing campaigns and strong sales force.

At the same time, they aimed to co-create value and share learnings within the ecosystem by carefully listening to the ecosystem's participants needs (both the demand but primarily the supply side needs) and by providing marketing trainings and support to the service providers. They showed an agile mindset by constantly adjusting the pricing structure mechanism to ensure the best gains for all participants of the ecosystem while still maintaining profitability for the company. According to previously mentioned Treatwell's branding, their goal is after all that every salon business owner who is part of their ecosystem is building his/her business in the best way possible. If Treatwell's ecosystem and marketing efforts are bringing a new client to the salon business for the first time, then the commission is charged. However, when a one-time booking becomes a repeat customer or finds a salon directly, then no commission is charged because that is a reflection of the salon

owner's good work. Besides enhancing co-creation, this approach also brings stronger trust between Treatwell and salon owners.

When it comes to rapid scaling, an approach of multiple mergers and acquisitions was followed both to enter different markets but also to gain access to certain technological expertise. This is in line with the literature of platform business approaches, according to which mergers and acquisitions (M&A) activities are pursued by numerous ventures as a strategy to rapidly scale a platform (Jahn & Bohnet-Joschko, 2023).

5.3.7 Firm's internal capabilities

When it comes to its founding team, Treatwell had a group of people with highly relevant expertise for different aspects of the targeted market. In the Dutch team, Laurens Groenendijk and Martijn Rozendaal come from food ordering site Just-Eat, Erik Wienk worked as financial director at Booking.com and Jan-Willem van Boeckel has spent years in various positions at the world's largest consumer goods manufacturer, Procter & Gamble.

The project was also backed by an equally high-profile roster of investors: Brent Hoberman, co-founder of Lastminute.com, Stefan Glaenger, former executive chairman of Last.fm, and Ambient Sound Investments — a venture fund, launched by former Skype engineers. The initial investor team was in complete strategic alignment with the founders especially in the UK region (Hebel & Champalimaud, 2016).

The EO dimension of Innovativeness led by a passionate personal value proposition was also evident in most founders of Treatwell and all regions:

- Lopo Champalimaud – co-founder of Wahanda (UK): *“It was surprising that you can book everything in your life online, but you can't book your hair and beauty”* (Hebel & Champalimaud, 2016).
- Jan-Willem van Boeckel – co-founder of Treatwell (Netherlands): *“The idea was born out of a painful experience when I urgently was looking for haircut. Back in 2009 (when I was working for P&G beauty and health) I was in the lead of a big annual contract proposal with a leading European retailer for my category. Everything well prepared (margin, new listings, promotional plan, category growth plan, investments etc), until I found out that I desperately needed a haircut. I*

painfully experienced that it was easier to book a flight to NY, including taxi and hotel, than making an appointment with your hairsalon. I did try to reach my hairsalon at 5.30pm, but there was voicemail. Did leave a message, but no answer. Did try to call other salons, but same story. No information available at the web about opening hours, no online booking solutions available, nowhere. The only solution was to call again in the morning at 9am finding out there was no availability. A very painful experience, but great insight of a need space that was potentially ready for disruption, was big (high online search number), and a latent need (everyone needs a haircut) that only needed to be brought online, just as Just Eat and Booking.com had managed earlier” (Boeckel, 2024).

The risk-taking dimension of EO was also evident as there was no equivalent success story in Europe or the US beauty industry and therefore there was no known recipe and increased risk (Hebel & Champalimaud, 2016).

5.3.8 Regulatory Agenda

Treatwell did not take advantage of any regulatory gaps to further expand their digital platform. At the same time, there was no issue when it comes to infrastructure and internet coverage required for the proper operation of the platform since both of these aspects were sufficient in Europe at that time.

Table 6: Discussing Treatwell’s case study under the lens of this work’s proposed framework

Initial Target Market	The demand side of the two-sided market by creation of a new market in an adjacent space → People who already shop online or book online services other than beauty (etc. food delivery, taxi). At the next phase all the people who were tech-savvy enough to use the platform via a computer all mobile phone to make their beauty appointments.
Value Proposition	Digitally revolutionize the hair and beauty community.
Value Creation	Initially market-driven innovation, later on there was the development of a technological advantage as well.

Value Delivery	Initially developed a booking platform through close collaboration with the supply chain of the platform (salon owners). Later, through the acquisition of different software companies, Treatwell developed improved technical competencies for building the booking system as well as the mobile application for the platform.
Value Capture	Adjusted many times. Current structure: commission-free for recurring bookings that pay at venue. 35% commission for first-time bookings and 2% commission for bookings who prepay for the appointment via Treatwell's platform. Subscription for the SaaS software. An important aspect is that the customer price-setting for the beauty services is completely under the control of the salon owners and not Treatwell.
Ecosystem Framing	The company's intention and positioning to the market was to digitalize the beauty industry and was clear from the beginning. Initial investors were fully aligned with the founders when it comes to the long-term strategic growth of the company. Treatwell's pricing structure combined with their "marketing academy" for the salon owners shows the desire of the company to build a very strong ecosystem and support growth and customer retention of their supplier side. Because of this alignment, the company was able to adapt its business model both in terms of strategy but also in terms of pricing structure to successfully create a powerful ecosystem that serves the needs of its stakeholders.
Firm's Internal Capabilities	Founding team(s)'s experience, background and entrepreneurial orientation, as well as investor team selection played a huge role here.
Regulatory agenda	Treatwell did not take advantage of any regulatory agenda or policy gap.

6 Conclusions and proposals for further research

6.1 Conclusions and contribution of this work

The structured literature review conducted in this work revealed the multiple aspects that need to be considered when the disruptive potential of a digital platform company is assessed either retrospectively or with the goal to predict its future potential success. The proposed framework suggests that aspects related to initial market entry strategy, value proposition, value creation, value delivery, value capture, ecosystem framing, firm's internal capabilities and industry's regulatory agenda needs to be discussed and carefully considered. When discussing the initial market entry strategy, Christensen's disruptive innovation theory (Christensen, 1997) but also but also product market vs market for ideas (Gans & Stern, 2003) and transilience map (Abernathy & Clark, 1985) frameworks can be used.

The proposed framework is used to examine the case study of a startup company who aspired to revolutionize the beauty industry by being the first to introduce a marketplace-type of digital platform where customers could search and book their beauty appointments. Initially, the target market segment, where people whose needs were overlooked in the beauty industry, inline with Christensen's disruptive innovation theory (Christensen, 1997).

By initially pursuing a market-driven innovation, Treatwell achieved a rapid development. Contrary to the remarks from Herold et al. (Herold et al.,2023), the case study of Treatwell showed that market-driven innovation can also lead to sustainable market domination of the company, given that the startup continues to build its technological competitiveness in parallel. By doing so, the quick growth from market-driven innovations can be combined with the competitive advantage that technological innovations offer in the long-run, which is exactly what Treatwell did through the acquisition and merge with software companies.

Treatwell also managed to build a strong ecosystem by focusing on the development of a strong brand and a co-creation and sharing mindset among the ecosystems participants. Initial founders had the proper background and entrepreneurial orientation skills for the specific market.

Overall, it can be concluded that Treatwell managed to disrupt the hair and beauty industry both from the side of the customer (demand) but also the side of the beauty service providers (supply). They expanded in multiple European countries rapidly and managed to change forever the way consumers search and book their hair and beauty services, making online appointment booking the standard (Boeckel, 2024). When it comes to the beauty salons, Treatwell managed to normalize the use of integrated digital salon software tools instead of the traditionally used phone and paper calendar approach.

The fact that the beauty industry was disrupted is also enhanced by the observation that after Treatwell achieved European dominance in 2016 as an online marketplace, new entrants came to the industry. These new entrants focused on SaaS salon software solutions to optimize management of salons, including online booking solutions for a venue's website, but didn't dare to open or step in the digital marketplace. This was due to the extreme high cost of entry and expertise in the online marketing domain, and more reluctant venture capital players that did value the SaaS over marketplace models. There is a saying: "it is difficult to build a marketplace, but it is even more difficult to kill one..." (Boeckel, 2024). The unwillingness of new entrants to enter the marketplace business is an indication that the disruption can be sustainable in the long run.

6.2 Research scope and limitations

As mentioned in the introductory chapter, each scientific work has certain limitations and the current study is no exception. This research is focused only on scientific articles coming from the business and management research field and there was no focus during the literature review in important fields such as economics or marketing. Furthermore, the focus of this work is on disruptive companies and not on disruptive technologies.

Additionally, using only one company as a case study is limited and caution needs to be paid before generalizing the conclusions. The framework was tested in this study by using a single case study and a European-based startup. Therefore, its wider applicability in other regions and/or different industries cannot be assessed without further studies.

Finally, the chosen search language can also impose significant limitations. Most disruptive and highly valued startup companies come from the US and China (Bock & Hackober, 2020), however the selected publication set used in this study only shows increased number of publications focusing on the US region, which is probably due to the fact that the search

language for the publications was exclusively English. For the case study, both English and Dutch were used to gather information from the media, making the information more complete for the Dutch and UK market compared to German and French ones.

6.3 Proposals for future research

Single case studies provide significant insights because they study certain extraordinary situations. Despite the useful conclusions drawn from the case study of Treatwell, more case studies, from different markets should be examined before generalizations of the framework can be made.

The structured literature review also revealed that there are currently significant gaps in academic research, not covered by the additions of this work, when it comes to disruptive digital research from the perspective of the entrant (usually startup). An important one is that some of the aspects of the proposed framework need to be examined in more detail. For example, the dimension of the ecosystem and how multi-sided digital platforms can operate within or build their own entrepreneurial digital ecosystem(s) is understudied and deserves extensive scholarly research attention (Etemad, 2023) in more detail.

Additionally, this work focused exclusively on a qualitative approach. This means that when it comes to quantitative research and larger datasets, there is still no unified approach to assess whether a startup company has been disruptive or not. Therefore, the conclusions from these quantitative studies cannot be easily compared or extrapolated to other fields or geographical regions. Developing metrics to properly assess disruptiveness is essential for future studies so that larger databases can be used and compared to evaluate frameworks and draw conclusions among different industries.

Finally, there is need for more interdisciplinary studies that explore the topic of disruption by a digital platform startup company, not only from the perspective of management but taking into account aspects from economics, marketing, IT etc. By exploring each framework aspect separately as previously mentioned, multidisciplinary studies are also more feasible.

References

- Abernathy, W. J., & Clark, K. B. (1985). *Innovation: Mapping the winds of creative destruction* *.
- Agyei-Boapeah, H., Evans, R., & Nisar, T. M. (2022). Disruptive innovation: Designing business platforms for new financial services. *Journal of Business Research*, 150, 134–146. <https://doi.org/10.1016/j.jbusres.2022.05.066>
- Alerasoul, S. A., Tiberius, V., & Bouncken, R. B. (2022). Entrepreneurship and Innovation: The Coevolution of Two Fields. *Journal of Small Business Strategy*, 32(2), 128–151. <https://doi.org/10.53703/001c.29968>
- Alet, J. (2023). Key pillars in a business ecosystem success. *Journal of Business Strategy*, 44(5), 294–300. <https://doi.org/10.1108/JBS-05-2022-0077>
- Ansari, S. S., Garud, R., & Kumaraswamy, A. (2016). The disruptor's dilemma: TiVo and the U.S. television ecosystem. *Strategic Management Journal*, 37(9), 1829–1853. <https://doi.org/10.1002/smj.2442>
- Aversa, P., Huyghe, A., & Bonadio, G. (2021). First Impressions Stick: Market Entry Strategies and Category Priming in the Digital Domain. *Journal of Management Studies*, 58(7), 1721–1760. <https://doi.org/10.1111/joms.12712>
- Badran, M. F. (2021). Digital platforms in Africa: A case-study of Jumia Egypt's digital platform. *Telecommunications Policy*, 45(3). <https://doi.org/10.1016/j.telpol.2020.102077>
- Berglund, H., & Sandström, C. (2017). A new perspective on the innovator's dilemma—exploring the role of entrepreneurial incentives. In *Int. J. Technology Management* (Vol. 75).
- Biber, E., Light, S., Ruhl, J., & Salzman, J. (2017). Regulating Business Innovation as Policy Disruption: From the Model T to Airbnb. *VANDERBILT LAW REVIEW*, 70(5), 1561. <https://escholarship.org/uc/item/12k5c7hc>
- Bock, C., & Hackober, C. (2020). Unicorns—what drives multibillion-dollar valuations? *Business Research*, 13(3), 949–984. <https://doi.org/10.1007/s40685-020-00120-2>
- Boeckel, Jan-Willem van. (2024). Personal communication with the author in the form of semi-structured email interview and informal discussions
- Boswijk, A. (2017). Transforming Business Value through Digitalized Networks: A Case Study on the Value Drivers of Airbnb. *Journal of Creating Value*, 3(1), 104–114. <https://doi.org/10.1177/2394964317697736>
- Bullini Orlandi, L., Zardini, A., & Rossignoli, C. (2021). Highway to hell: Cultural propensity and digital infrastructure gap as recipe to entrepreneurial death. *Journal of Business Research*, 123, 188–195. <https://doi.org/10.1016/j.jbusres.2020.09.047>
- Christensen, C. M. (1997). *The Innovator's Dilemma*. Harvard Business School Press, Boston.
- Christensen, C. M., McDonald, R., Altman, E. J., & Palmer, J. E. (2018). Disruptive Innovation: An Intellectual History and Directions for Future Research. *Journal of Management Studies*, 55(7), 1043–1078. <https://doi.org/10.1111/joms.12349>
- Clayton M. Christensen, Michael E. Raynor, & Rory McDonald. (2015, December). What Is Disruptive Innovation? . *Harvard Business Review*.

- Cozzolino, A., Verona, G., & Rothaermel, F. T. (2018). Unpacking the Disruption Process: New Technology, Business Models, and Incumbent Adaptation. *Journal of Management Studies*, 55(7), 1166–1202. <https://doi.org/10.1111/joms.12352>
- Davor Hebel, & Lopo Champalimaud. (2016). *The Treatwell story by its CEO and Founder, Lopo Champalimaud*. Youtube.
- Denning, S. (2021). Mastering the challenge of business ecosystems. *Strategy and Leadership*, 49(4), 9–15. <https://doi.org/10.1108/SL-06-2021-0057>
- Dong, J. Q. (2019). Moving a mountain with a teaspoon: Toward a theory of digital entrepreneurship in the regulatory environment. *Technological Forecasting and Social Change*, 146, 923–930. <https://doi.org/10.1016/j.techfore.2018.07.050>
- Etemad, H. (2023). The increasing prevalence of multi-sided online platforms and their influence on international entrepreneurship: The rapid transformation of entrepreneurial digital ecosystems. *Journal of International Entrepreneurship*, 1–30.
- F. Teoh, M., H. Ahmad, N., A. Halim, H., & H. Ong, C. (2022). Digital Business Model Innovation and SMEs' Competitiveness: Insights from Malaysian SMEs. *Global Business and Management Research: An International Journal*, 14(3s).
- Felicetti, A. M., Corvello, V., & Ammirato, S. (2023). Digital innovation in entrepreneurial firms: a systematic literature review. *Review of Managerial Science*. <https://doi.org/10.1007/s11846-023-00638-9>
- Foss, N. J., & Saebi, T. (2017). Fifteen Years of Research on Business Model Innovation: How Far Have We Come, and Where Should We Go? *Journal of Management*, 43(1), 200–227. <https://doi.org/10.1177/0149206316675927>
- Gans, J. S., & Stern, S. (2003). The product market and the market for “ideas”: commercialization strategies for technology entrepreneurs. *Research Policy*, 32(2), 333–350.
- Ghezzi, A. (2022). Competitive empathy: sharing values and strategies with rivals. *Journal of Business Strategy*, 43(6), 357–364. <https://doi.org/10.1108/JBS-05-2021-0088>
- Gularso, K., Nugraha Mursitama, T., Heriyati, P., & Simatupang, B. (2020). SOCIAL SCIENCES & HUMANITIES Disruptive Business Model Innovation in Indonesia Digital Startups. *Pertanika J. Soc. Sci. & Hum*, 28(2), 847–865.
- Günzel, F., & Holm, A. B. (2013). One size does not fit all—understanding the front-end and back-end of business model innovation. *International Journal of Innovation Management*, 17(01).
- Gupta, G., & Bose, I. (2022). Digital transformation in entrepreneurial firms through information exchange with operating environment. *Information and Management*, 59(3). <https://doi.org/10.1016/j.im.2019.103243>
- Habtay, S. R. (2012). A Firm-Level Analysis on the Relative Difference between Technology-Driven and Market-Driven Disruptive Business Model Innovations. *Creativity and Innovation Management*, 21(3), 290–303. <https://doi.org/10.1111/j.1467-8691.2012.00628.x>
- Herold, D. M., Fahimnia, B., & Breitbarth, T. (2023). The digital freight forwarder and the incumbent: A framework to examine disruptive potentials of digital platforms. *Transportation Research Part E: Logistics and Transportation Review*, 176. <https://doi.org/10.1016/j.tre.2023.103214>

- Hersleth, S. A., Gonera, A., & Kubberød, E. (2023). Micro-businesses in the driver's seat: a qualitative study of market-driving practices in the food sector. *Journal of Small Business and Enterprise Development*, 30(4), 759–785. <https://doi.org/10.1108/JSBED-06-2022-0280>
- Herwin Thole. (2013, April 13). 't Gat in de markt: marktplaats voor kappers. *Business Insider Nederland*.
- Heshmatisafa, S., & Seppänen, M. (2023). Exploring API-driven business models: Lessons learned from Amadeus's digital transformation. *Digital Business*, 3(1). <https://doi.org/10.1016/j.digbus.2023.100055>
- Imam, T. (2022). Venturing and managing disruptive digital innovations: financial management concept motivated propositions. *International Journal of Innovation Science*. <https://doi.org/10.1108/IJIS-01-2021-0002>
- Jahn, J., & Bohnet-Joschko, S. (2023). Healthcare startups compete in new digital spaces: the lure of virtual specialties. *Journal of Business Strategy*. <https://doi.org/10.1108/JBS-09-2022-0170>
- Jin, B. E., & Shin, D. C. (2020). Changing the game to compete: Innovations in the fashion retail industry from the disruptive business model. *Business Horizons*, 63(3), 301–311. <https://doi.org/10.1016/j.bushor.2020.01.004>
- Lattemann, C., Alon, I., & Patig, E. (2019). Case in disruption: LexShares and the litigation finance sector. *Global Business and Organizational Excellence*, 38(2), 13–22. <https://doi.org/10.1002/joe.21906>
- Leong, C., Tan, B., Xiao, X., Tan, F. T. C., & Sun, Y. (2017). Nurturing a FinTech ecosystem: The case of a youth microloan startup in China. *International Journal of Information Management*, 37(2), 92–97. <https://doi.org/10.1016/j.ijinfomgt.2016.11.006>
- Majamäki, L., & Akpınar, M. (2014). *Challenges and success factors in pursuing disruptive innovations: A Finnish high-tech start-up case study*. <http://urn.fi/urn:nbn:fi:jamk-issn-2341-9938-1>
- Mancha, R., Gordon, S., & Iyer, B. (2018). Figayou pursues a platform strategy: a case study of digital platform entrepreneurship. *Journal of Information Technology Case and Application Research*, 20(2), 55–70. <https://doi.org/10.1080/15228053.2018.1479207>
- Markides, C. (2006). *Disruptive Innovation: In Need of Better Theory*.
- Mattos, C. A., & Novais Filho, M. J. (2023). Mechanisms to develop a business model through the Internet of things: a multiple case study in manufacturing companies. *Technology Analysis and Strategic Management*. <https://doi.org/10.1080/09537325.2023.2177826>
- Maulana, A., Sucahyo, Y. G., Ruldeviyani, Y., & Gandhi, A. (2018). Requirements for Platform-based Startup Survival : A Qualitative Exploratory Study. *2018 International Conference on Advanced Computer Science and Information Systems (ICACSIS)*, 137–142. <https://doi.org/10.1109/ICACSIS.2018.8618231>
- Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: a handbook for visionaries, game changers, and challengers* (Vol. 1). John Wiley & Sons.
- Parker, G., Van Alstyne, M., & Choudary, S. (2016). *Platform revolution: How networked markets are transforming the economy and how to make them work for you*. WW Norton & Company.

- Petzold, N., Schmidt, A. L., & Scaringella, L. (2023). How to overcome the disruptor's dilemma: Exploring strategic alliance reconfiguration of new market entrants. *Technovation*, 126. <https://doi.org/10.1016/j.technovation.2023.102812>
- Pipiriene, V., & Khayrzoda, S. (2021). Digital platforms: drivers for competence and competitiveness growth. In *Int. J. Learning and Change* (Vol. 13, Issue 5).
- Porter, M. E. (1980). Industry structure and competitive strategy: Keys to profitability. *Financial Analysts Journal*, 36(4), 30–41.
- Reis, J. Z., Goncalves, R. F., Lage, E. de S., & Nääs, I. de A. (2022). Internet of services-based business model: a case study in the livestock industry. *Innovation and Management Review*, 19(4), 400–416. <https://doi.org/10.1108/INMR-11-2020-0166>
- Remané, G., Schneider, S., & Hanelt, A. (2022). DIGITAL BUSINESS MODEL TYPES: UNDERSTANDING THEIR MECHANISMS AS RECIPES TO COMMERCIALISE DIGITAL TECHNOLOGIES. *International Journal of Innovation Management*, 26(3). <https://doi.org/10.1142/S1363919622400199>
- Rochet, J.-C., & Tirole, J. (2004). *Two-Sided Markets: An Overview* *.
- Rong, K., Lin, Y., Du, W., & Yang, S. (2023). Business ecosystem-oriented business model in the digital era. *Technology Analysis and Strategic Management*. <https://doi.org/10.1080/09537325.2023.2191743>
- Sandström, C. (2011). High-end disruptive technologies with an inferior performance. In *Int. J. Technology Management* (Vol. 56).
- Saqib, N., & Shah, G. B. (2022). Business Model Innovation through Digital Entrepreneurship: A Case of Online Food Delivery Start-Up in India. *International Journal of E-Entrepreneurship and Innovation*, 13(1). <https://doi.org/10.4018/IJEEI.315294>
- Schiuma, G., Schettini, E., Santarsiero, F., & Carlucci, D. (2022). The transformative leadership compass: six competencies for digital transformation entrepreneurship. *International Journal of Entrepreneurial Behaviour and Research*, 28(5), 1273–1291. <https://doi.org/10.1108/IJEER-01-2021-0087>
- Shapiro, C. (1989). The theory of business strategy. *The Rand Journal of Economics*, 20(1), 125–137.
- Sood, A., & Tellis, G. J. (2011). Demystifying disruption: A new model for understanding and predicting disruptive technologies. *Marketing Science*, 30(2), 339–354. <https://doi.org/10.1287/mksc.1100.0617>
- Snihur, Y., Thomas, L. D. W., & Burgelman, R. (2018). An Ecosystem-Level Process Model of Business Model Disruption The Disruptor's Gambit. *Journal of Management Studies*, 55(7), 1278–1316.
- Täuscher, K., & Laudien, S. M. (2018). Understanding platform business models: A mixed methods study of marketplaces. *European Management Journal*, 36(3), 319–329. <https://doi.org/10.1016/j.emj.2017.06.005>
- Teece, D. J., & Linden, G. (2017). Business models, value capture, and the digital enterprise. *Journal of Organization Design*, 6(1). <https://doi.org/10.1186/s41469-017-0018-x>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533. [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z)

- Thakur, R., AlSaleh, D., & Hale, D. (2023). Digital disruption: a managers' eye view. *Journal of Business and Industrial Marketing*, 38(1), 53–70. <https://doi.org/10.1108/JBIM-05-2021-0273>
- Thomas, V. J., & Maine, E. (2019). Market entry strategies for electric vehicle start-ups in the automotive industry – Lessons from Tesla Motors. *Journal of Cleaner Production*, 235, 653–663. <https://doi.org/10.1016/j.jclepro.2019.06.284>
- Treatwell's official website*. (2024, January).
- Turki, A., & Rieg, R. (2023). On performance drivers of European Fintechs around venture capital: exploring the role of founders' experience. *Review of Accounting and Finance*, 22(5), 682–699. <https://doi.org/10.1108/RAF-05-2023-0153>
- Van Eck, N. J., & Waltman, L. (2014). Visualizing bibliometric networks. In *Measuring scholarly impact: Methods and practice* (pp. 285-320). Cham: Springer International Publishing.
- Webster, J., & Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. In *Source: MIS Quarterly* (Vol. 26, Issue 2).
- Yin, R. K. (2018). *Case study research and applications - Design and methods*. Sage Publications.
- Zhou, Z., & Wan, X. (2022). Does the Sharing Economy Technology Disrupt Incumbents? Exploring the Influences of Mobile Digital Freight Matching Platforms on Road Freight Logistics Firms. *Production and Operations Management*, 31(1), 117–137. <https://doi.org/10.1111/poms.13491>

Appendix A: Matrices with selected publications

Table A1: Final selection of articles based on empirical research

No	Authors	Title	Journal	Year	Research method
1	Saqib N.; Shah G.B.	Business Model Innovation through Digital Entrepreneurship: A Case of Online Food Delivery Start-Up in India	International Journal of E-Entrepreneurship and Innovation	2022	qualitative (single case study)
2	Taeuscher, K., & Laudien, S. M.	Understanding platform business models: A mixed methods study of marketplaces	European Management Journal	2018	Mixed method (qualitative and quantitative)
3	Reis J.Z.; Goncalves R.F.; Lage E.S.; Nääs I.A.	Internet of services-based business model: a case study in the livestock industry	Innovation and Management Review	2022	qualitative (single case study)
4	Centobelli P.; Cerchione R.; Esposito E.; Passaro R.; Quinto I.	The undigital behavior of innovative startups: empirical evidence and taxonomy of digital innovation strategies	International Journal of Entrepreneurial Behaviour and Research	2022	Mixed method (qualitative and quantitative)
5	Matricano D.	The influence of the technological regime on the performance of Italian innovative start-ups	Technology Analysis and Strategic Management	2022	quantitative
6	Mattos C.A.; Novais Filho M.J.	Mechanisms to develop a business model through the Internet of things: a multiple case study in manufacturing companies	Technology Analysis and Strategic Management	2023	qualitative (multiple case study)
7	Rong K.; Lin Y.; Du W.; Yang S.	Business ecosystem-oriented business model in the digital era	Technology Analysis and Strategic Management	2023	qualitative (interviews with experts)
8	Jahn J.; Bohnet-Joschko S.	Healthcare startups compete in new digital spaces: the lure of virtual specialties	Journal of Business Strategy	2023	qualitative (multiple case study)
9	Gupta G.; Bose I.	Digital transformation in entrepreneurial firms through information exchange with operating environment	Information and Management	2022	qualitative (multiple case study)
10	Bullini Orlandi L.; Zardini A.; Rossignoli C.	Highway to hell: Cultural propensity and digital infrastructure gap as recipe to entrepreneurial death	Journal of Business Research	2021	qualitative
11	Thakur R.; AlSaleh D.; Hale D.	Digital disruption: a managers' eye view	Journal of Business and Industrial Marketing	2023	quantitative (hypothesis testing)
12	Hersleth S.A.; Gonera A.; Kubberød E.	Micro-businesses in the driver's seat: a qualitative study of market-driving practices in the food sector	Journal of Small Business and Enterprise Development	2023	qualitative (multiple case study)
13	Turki A.; Rieg R.	On performance drivers of European Fintechs around venture capital: exploring the role of founders' experience	Review of Accounting and Finance	2023	quantitative
14	Kraus S.; Vonmetz K.; Bullini Orlandi L.; Zardini A.; Rossignoli C.	Digital entrepreneurship: The role of entrepreneurial orientation and digitalization for disruptive innovation	Technological Forecasting and Social Change	2023	quantitative (hypothesis testing)
15	Petzold N.; Schmidt A.L.; Scaringella L.	How to overcome the disruptor's dilemma: Exploring strategic alliance reconfiguration of new market entrants	Technovation	2023	qualitative (multiple case study)
16	Herold D.M.; Fahimnia B.; Breitbarth T.	The digital freight forwarder and the incumbent: A framework to examine disruptive potentials of digital platforms	Transportation Research Part E: Logistics and Transportation Review	2023	qualitative (single case study)
17	Etemad H.	The increasing prevalence of multi-sided online platforms and their influence on international entrepreneurship	Journal of International Entrepreneurship	2023	qualitative (multiple case study)

18	Agyei-Boapeah H.; Evans R.; Nisar T.M.	Disruptive innovation: Designing business platforms for new financial services	Journal of Business Research	2022	qualitative (multiple case study)
19	Aversa P.; Huyghe A.; Bonadio G.	First Impressions Stick: Market Entry Strategies and Category Priming in the Digital Domain	Journal of Management Studies	2021	qualitative (multiple case study)
20	Zhou Z.; Wan X.	Does the Sharing Economy Technology Disrupt Incumbents? Exploring the Influences of Mobile Digital Freight Matching Platforms on Road Freight Logistics Firms	Production and Operations Management	2022	quantitative
21	Badran M.F.	Digital platforms in Africa: A case-study of Jumia Egypt's digital platform	Telecommunications Policy	2021	qualitative (single case study)
22	Bock C.; Hackober C.	Unicorns—what drives multibillion-dollar valuations?	Business Research	2020	quantitative
23	Gularso K.; Mursitama T.N.; Heriyati P.; Simatupang B.	Disruptive Business Model Innovation in Indonesia Digital Startups	Pertanika Journal of Social Sciences and Humanities	2020	Quantitative (questionnaire)
24	Jin B.E.; Shin D.C.	Changing the game to compete: Innovations in the fashion retail industry from the disruptive business model	Business Horizons	2020	qualitative (multiple case study)
25	Sousa M.J.; Rocha Á.	Skills for disruptive digital business	Journal of Business Research	2019	Mixed method (qualitative and quantitative)
26	Brazinskas S.; Pipiriene V.; Khayrzoda S.	Digital platforms: drivers for competence and competitiveness growth	International Journal of Learning and Change	2021	qualitative (multiple case study)
27	Ansari S.S.; Garud R.; Kumaraswamy A.	The disruptor's dilemma: TiVo and the US television ecosystem	Strategic Management Journal	2016	qualitative (single case study)
28	Lattemann C.; Alon I.; Patig E.	Case in disruption: LexShares and the litigation finance sector	Global Business and Organizational Excellence	2019	qualitative (single case study)
29	Boswijk A.	Transforming Business Value through Digitalized Networks: A Case Study on the Value Drivers of Airbnb	Journal of Creating Value	2017	qualitative (single case study)
30	Habtay S.R.	A Firm-Level Analysis on the Relative Difference between Technology-Driven and Market-Driven Disruptive Business Model Innovations	Creativity and Innovation Management	2012	qualitative (multiple case study)
31	Dong J.Q.	Moving a mountain with a teaspoon: Toward a theory of digital entrepreneurship in the regulatory environment	Technological Forecasting and Social Change	2019	qualitative (single case study)
32	Lyubareva I.; Benghozi P.-J.; Fidele T.	Online Business Models in Creative Industries. Diversity and Structure	International Studies of Management and Organization	2014	quantitative
33	Leong C.; Tan B.; Xiao X.; Tan F.T.C.; Sun Y.	Nurturing a FinTech ecosystem: The case of a youth microloan startup in China	International Journal of Information Management	2017	qualitative (single case study)
34	Berglund H.; Sandström C.	A new perspective on the innovator's dilemma – exploring the role of entrepreneurial incentives	International Journal of Technology Management	2017	qualitative (single case study)
35	Heshmatisafa S.; Seppänen M.	Exploring API-driven business models: Lessons learned from Amadeus's digital transformation	Digital Business	2023	qualitative (single case study)
36	Urbinati, A., Chiaroni, D., Chiesa, V., & Frattini, F.	The Role of Business Model Design in the Diffusion of Innovations: An Analysis of a Sample of Unicorn-Tech Companies	International Journal of Innovation and Technology Management	2019	Qualitative (historical analysis)
37	A. Cozzolino, G. Verona, F. T. Rothaermel	Unpacking the Disruption Process: New Technology, Business Models, and Incumbent Adaptation	Journal of Management Studies	2018	qualitative (single case study)
38	Y. Snihur, L. D. W. Thomas and R. A. Burgelman	An Ecosystem-Level Process Model of Business Model Disruption: The Disruptor's Gambit	Journal of Management Studies	2018	qualitative (multiple case study)

39	Still, K., Seppanen, M., Korhonen, H., Valkokari, K., Suominen, A., & Kumpulainen, M.	Business Model Innovation of Startups Developing Multisided Digital Platforms	2017 IEEE 19th Conference on Business Informatics	2017	qualitative (multiple case study)
40	MF Teoh, NH Ahmad, HA Halim, CH Ong	Digital Business Model Innovation and SMEs' Competitiveness: Insights from Malaysian SMEs	Global Business and Management Research: An International Journal	2022	qualitative (multiple case study)
41	A. Maulana, Y.G. Sucahyo, Y. Ruldeviyani, A. Gandhi	Requirements for Platform-based Startup Survival : A Qualitative Exploratory Study	2018 International Conference on Advanced Computer Science and Information Systems (ICACSIS)	2018	qualitative (exploratory study)
42	Ruben Mancha, Steven Gordon & Bala Iyer	Figayou pursues a platform strategy: a case study of digital platform entrepreneurship	Journal of Information Technology Case and Application Research	2018	qualitative (single case study)
43	L. Majamäki, M. Akpinar	Challenges and success factors in pursuing disruptive innovations: A Finnish high-tech start-up case study	Finnish Business Review	2014	qualitative (single case study)

Table A2: Final selection of articles based on conceptual research

No	Authors	Title	Journal / Publisher	Year
44	Alet J.	Key pillars in a business ecosystem success	Journal of Business Strategy	2023
45	Krippendorff K.	Building an ecosystem brand	Strategy and Leadership	2022
46	Imam T.	Venturing and managing disruptive digital innovations: financial management concept motivated propositions	International Journal of Innovation Science	2022
47	Adner R.; Lieberman M.	Disruption Through Complements	Strategy Science	2021
48	Denning S.	Mastering the challenge of business ecosystems	Strategy and Leadership	2021
49	Christensen C.M.; McDonald R.; Altman E.J.; Palmer J.E.	Disruptive Innovation: An Intellectual History and Directions for Future Research	Journal of Management Studies	2018
50	Kilkkä K.; Mäntylä M.; Karhu K.; Hämmäinen H.; Ailisto H.	A disruption framework	Technological Forecasting and Social Change	2018
51	V.J. Thomas, E. Maine	Market entry strategies for electric vehicle start-ups in the automotive industry	Journal of Cleaner Production	2019
52	David J. Teece, Greg Linden	Business models, value capture, and the digital enterprise	Journal of Organization Design	2017
53	Osterwalder, A., and Pigneur, Y.	Business model generation: a handbook for visionaries, game changers, and challengers.	John Wiley & Sons	2013
54	Jean-Charles Rochet, Jean Tirole	Platform Competition in Two-Sided Markets	Journal of the European Economic Association	2003
55	Christian Sandström	High-end disruptive technologies with an inferior performance	Int. J. Technology Management	2011
56	Constantinos Markides	Disruptive Innovation: In Need of Better Theory	The Journal of Product Innovation Management	2006
57	Abernathy, Clark	Innovation: Mapping the winds of creative destruction		1985
58	Sucet Jimena Martinez-Vergara and Jaume Valls-Pasola	Clarifying the disruptive innovation puzzle: a critical review	European Journal of Innovation Management	2021

Appendix B: Data matrix for Treatwell case study

Date	Type of data	Interviewee	Language	Link
4 October 2013	Interview (article)	Laurens Groenendijk	Dutch	https://www.businessinsider.nl/t-gat-in-de-markt-online-afspraak-maken-bij-de-kapper-385001/
15 April 2014	Article	Laurens Groenendijk	Dutch	https://mtsprout.nl/groei/we-zijn-de-airbnb-voor-salons
1st May 2015	LinkedIn Post	Davor Hebel (Managing Partner of 8 roads ventures in Europe)	English	Farewell Wahanda! 5 factors that were key to the marketplace's success (linkedin.com)
5 June 2015	Article		Dutch	https://mtsprout.nl/groei/treatwell-maakt-exit-van-34-miljoen-euro-na-18-maanden
9 June 2015	Article		Dutch	https://mena.nl/artikel/nederlandse-startup-maakt-na-18-maanden-exit-van-34-miljoen-euro/
16 June 2015	Article	Lopo Champalimaud	English	Beauty Booking Site Wahanda Raises Another \$73M, Buys ZenSoon To Expand Into France TechCrunch
18 January 2016	Article	English	Dutch	well-wordt-internationaal-merk~b2f6f6eb8/?referrer=https://www.google.com/
4 April 2016	Video Interview	Lopo Champalimaud	English	https://www.youtube.com/watch?v=tKGX6XFnhjk
27 May 2017		Lopo Champalimaud	English	https://www.businessinsider.com/treatwell-ceo-lopo-champalimaud-transforming-beauty-industry-2017-5?international=true&r=US&IR=T
16 May 2022				https://www.clipperton.com/news-transaction/wavy-is-acquired-by-treatwell
17 October 2022				https://www.forbes.com/sites/marijabutkovic/2022/10/17/treatwell-europes-leading-online-booking-platform-starts-its-climate-action-program-for-a-more-sustainable-beauty-industry/?sh=5f313aadd5e2
2 December 2022				https://www.globalcosmeticsnews.com/treatwell-launches-beauty-and-wellness-booking-system-direct-via-apple-maps/
Last accessed at January 2024	Crunchbase database	-	English	https://www.crunchbase.com/organization/treatwell-nl

Appendix C: Semi-structured interview – unmodified response

Interviewee: Jan Willem van Boeckel, co-founder of Treatwell

Communication method: email (combined with previous informal discussions)

1) How did you come up with the idea or why did you think this was a good company to be part of?

The idea was born out of a painful experience when I urgently was looking for haircut. Back in 2009 (when I was working for P&G beauty and health) I was in the lead of a big annual contract proposal with a leading European retailer for my category. Everything well prepared (margin, new listings, promotional plan, category growth plan, investments etc), until I found out that I desperately needed a haircut. I painfully experienced that it was easier to book a flight to NY, including taxi and hotel, than making an appointment with your hair salon. I did try to reach my hair salon at 5.30pm, but there was voicemail. Did leave a message, but no answer. Did try to call other salons, but same story. No information available at the web about opening hours, no online booking solutions available, nowhere. The only solution was to call again in the morning at 9am finding out there was no availability. A very painful experience, but great insight of a need space that was potentially ready for disruption, was big (high online search number), and a latent need (everyone needs a haircut) that only needed to be brought online, just as Just Eat and Booking.com had managed earlier.

I had some insights in Booking.com and JustEat, and recognized how a digital platform could unlock and aggregate a huge market with low concentration of many small venues and many more consumers. The first validation, checking online search volume for specific verticals, and potential commission model was enough evidence to found Treatwell.

The power is in the team. So, I found a cofounder that had experience in platform industry, being a co-founder at JustEat. After that also welcomed the former CFO of Booking.com as co-founder. A strong team with strong knowledge about how to build and scale a winning platform, where there is no playbook how to win in the hair & beauty space.

2) What was the initial target customer profile?

We understood this was a 2 sided marketplace with 2 parties to be served to their needs: supply (venues/salons) and demand (consumers).

We believed that we need to focus on the consumer first, under the assumption that having access to demand and their wallet will open up appetite and doors of supply. Not the other way around.

We did however understand that both parties needed to be carefully managed to make sure they were in balance. Just enough bookings per venue to keep them engaged. Enough supply and availability hyper locally in every vertical, for consumers to make sure that they will experience “choice” and “convenience” that will be translated in conversion (a booking).

Therefore, we started in Amsterdam not until we had 150 venues live on the Treatwell platform in over 10 verticals (hair salon, nail studio, massage salon, yoga studio, personal trainer, botox etc) and a huge multi-channel marketing campaign that created brand awareness to our target audience (consumers) and initiated demand from the start (with free bookings)

Target audience: everyone searching online for new beauty, hair or wellness aspirations and looking for a booking experience that they are used to in other verticals like online food delivery, restaurant reservation and hotel reservation. “Killing the phone”

3) Was the technology for such a platform already available when you started, and if so, why do you think no one has done it before?

Most venues (95%) did not believe software could really replace the paper calendar, that was extreme complex to be managed and updated, whilst also planning staff in visible way.

Consumers however loved the idea! They already had familiarized how to book a hotel, holiday or restaurant online and for them this was a logical next step.

Most salon owners, where more stylist than businesspeople. No big interest in process optimization.

Salon marketing was actually having a checkout display and window poster, a website (showing no real interesting information but phone number and opening times) and a lot of instore material placed by beauty brands.

Roughly 50% of venues had a website and 98% of the venues did NOT have an online booking solution. Those venues that had an online booking solution had developed it themselves, often by small software companies that build a tailormade salon management

software solution. No more than 20% had some way of salon software especially for staff planning, but over 50%-75% some administration software.

Those software companies that tried to think in the direction of building a platform failed directly. It was because they thought “venues first”, not understanding the requirements of 2 sides of the platform. Key mistakes:

no solution for pain/gains of consumers, no choice, nor convenience. At best offering Booking requests.... Since they were not able integrate the paper calendar and processes with their software.

Tailormade complex software solutions based on not well thought list of requirements defined by venues.

Complex software leading to difficult customer journeys, that at best offered a booking request. That is not what the consumer was looking for.

Having national coverage, but no relevant threshold to attract and retain consumers locally. Eg. 2 hairsalons in Amsterdam, 50 in the Netherlands. Not understanding that this is a hyperlocal business where “choice” is relevant, hyper locally.

Complex software solutions,

Software providers went bankrupt because per vertical they spend so much time on solving unique request that there was a lack of scalability and standardization

Online platform players couldn't scale and went bankrupt, because they were lacking understanding that key requirements were speed of scale, conversion, customer success, online marketing and a big field force. No party really thought in building a global platform! Treatwell was built for scale on all aspects: tech, brand, team and funding.

When we started there was no real online platform where consumers could search and book their appointment. In no European country. After 2 years we did see one player per country, of which only Wahanda was significant in the UK. Treatwell was dominant in the BNL and DACH and was

4) What were the main challenges/bottlenecks from your perspective while building the Treatwell platform?

Initially: finding a balance between demand and supply that offers convenience, choice and solving a pain.

Getting a paper calendar online (for online availability) with a complex service/staff planning managed for 100 years on paper

On the go: Optimizing the Commission model for new and existing customers

On the go: Funding. Building a 2-sided marketplace is extremely expensive

SaaS: how much software to offer and develop in order to unlock online availability of venues

Exit (2015): Recruit holding acquired Treatwell (BNL, DACH) and Wahanda (UK) in order to build a global from which the world outside Japan should be conquered and brought both under the Treatwell name. (A similar approach that Recruit did for their recruitment Branche, with Indeed and USGcapacity). After that, we quickly followed a buy and build strategy and brought also all new acquisitions under the Treatwell name, with dedicated locations/hubs for specific expertise. Eg Vilnius: backend/SaaS, Amsterdam: frontend, marketing, London: finance/strategy. Going forward we experienced a strong pressure which were not in the best interest for the company and the team, like a pull to move the Amsterdam team to London and having different views on strategic priorities and metrics. For the original Treatwell founders the moment to leave the company mid 2016.

5. Why did you choose a commission-based revenue model? Did that ever change during the company's lifetime (before the exit)?

We started with a commission-based model of 15% on EVERY online booking made via our app or website, paid by the venue. Bookings made via the TW booking widget on the venue's own website where without commission. Our assumption was that as a 2-sided marketplace, we needed to be in the range of 20%-40% per booking (as seen at JustEat and Booking.com). We choose for being below the range, given the fact that our business had a more repetitive/loyal and personal character as compared to the other platforms.

We assumed that 15% on an average booking value of 40€ = 6€ commission would be acceptable.

We learned that we really brought value to venues on our platform. Some venues even recorded 7 new customers in their first week after joining. Knowing that the CLV is about €3000, an initial investment of 6€ was considered a bargain!

Going forward we learned that more and more venues were less enthusiastic about the fact that they needed to pay commissions for customers they already served but booked via Treatwell instead of their own booking widget.

Here we found out that our platform was different from other platforms like Booking.com and JustEat.

Although all platforms look similar in bringing local supply online in an aggregated way, the difference was on capacity, booking-horizon and loyalty.

For Booking capacity is fixed. A room is available or not. Horizon is from tonight until roughly 8 months from now and loyalty is none. For next week you need the right hotel at the right location and price in London and for next month a similar request for Rome. There is no connection between the consumer and the venue (demand and supply)

For JustEat capacity is unlimited. A pizza is ordered and will be put on top of the current order process to be delivered somewhere within 60 minutes. If is busy, delivery time will be 60 minutes, if the kitchen is not busy, it will be delivered in 15 minutes. The horizon is today in the next 60 minutes. Not possible for tonight or tomorrow. There is a preference for a dish and also for some restaurants, but there is more loyalty for the platform.

For Treatwell we found out that things were different. Capacity was hybrid/dynamic. Sunday and Monday closed, On Tuesday only the owner was working. Wednesday a team of 3 and Thursday, Friday, and Saturday there were 8 staff working. Regardless of the venue capacity of 6 chairs. On top of that, the service was highly dependent of the staff. One person only doing coloring, one person doing curls, another person specific styling, and in many times a booking required over 3 persons plus 45 minutes of drying time.

The booking horizon was primarily for the next 3-4 days and 1 month.

But the biggest difference was the level of loyalty and personal involvement. Once a consumer was happy about a new salon it will come back again and again: retention. Unlike Booking.com and JustEat, there is personal communication, even physical contact.

Although consumers were very happy about the Treatwell solution, we discovered that venues were struggling with paying commission over bookings of existing customers.

Therefore, we experimented with commission models that differentiated between new and existing behavior. Eg We validated a model that took 30% commission over new customers and 0-5% over existing customers.

Eventually, after our exit to Recruit Holding, the Treatwell SaaS solution salon automation software became so good that, under pressure of the market and competition, around the year 2018, a subscription model was introduced with a monthly fee, next to the marketplace model with a commission over bookings made on the TW platform. Recently I found out from TW senior leadership that the marketplace model had been misunderstood after the founders left, for the wrong reasons hold as expensive, but with a deeper dive in the data clearly has shown huge potential and as such will receive higher strategic priority again.

6. Do you think that Treatwell changed the Dutch beauty market significantly?

Yes totally. We brought the traditional hair and beauty market online in every European country and changed the way how consumers search and book their hair and beauty treatment forever. The ease of checking for availability and booking directly at your venue of choice has become the standard.

Also, we changed the way how venues managed their bookings and staff planning, from a paper calendar and phone approach towards an integrated digital salon software tool.

We have seen that after achieving European dominance in 2016 in the online marketplace, new entrants came focusing on SaaS salon software solutions to optimize management of salons, including online booking solutions for a venue's website, but didn't dare to open or step in the digital marketplace. This was due to the extreme high cost of entry and expertise in the online marketing domain, and more reluctant venture capital players that did value the SaaS over marketplace models. (there is a saying: "it is difficult to build a marketplace, but it is even more difficult to kill one....")

Author's Statement:

I hereby expressly declare that, according to the article 8 of Law 1559/1986, this dissertation is solely the product of my personal work, does not infringe any intellectual property, personality and personal data rights of third parties, does not contain works/contributions from third parties for which the permission of the authors/beneficiaries is required, is not the product of partial or total plagiarism, and that the sources used are limited to the literature references alone and meet the rules of scientific citations.