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DIGITAL M&A: SUCCESS FACTORS OF M&A DEALS IN THE DIGITAL SPACE

MARTINS LAUCIS (1593)

A Project carried out on the CEMS Business Project course, under the supervision of:

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ABSTRACT

Over the last years corporate M&A transactions involving the so-called digital natives - companies with new digital business models have increased significantly. However, these digital deals differ significantly from deals with traditional companies. This project analyzes the differences between traditional and digital deals, key success factors of online based business models and to develops a guidance framework for dealmakers in the digital space by conducting academic and industry research combined with detailed expert interviews and a broader expert survey. 20 case studies from digital M&A deals in the period of 2012-2015 are used to test the findings and initial hypothesis about digital deal success. Key findings include insights into the changing business environment of digital business models, trends as well as key metrics and factors that are associated with successful digital companies.

KEYWORDS: M&A, digital companies, online business models, key success factors

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1. BRIEF CONTEXT

1.1. Client

The Client for this Business Project was – PricewaterhouseCoopers (PwC) - one of the leading auditing and consulting services organizations in Germany, offering its services worldwide as an independent member of the international PwC network (157 countries with more than 195,000 people). The services provided by PwC to its Clients include Assurance (audit and audit related services), Tax & Legal (tax and legal advice) and Advisory (deals and consulting). In Germany PwC has the highest turnover (€ 1.55 bn) and is considered the most attractive employer among the Big 4 accounting firms. Within Germany alone PwC has around 9,400 employees spread across 29 locations. The nationwide presence enables the firm to operate at the heart of the German economy – whether for global players, family-owned businesses or the public sector. With over 35,000 Clients and more than 25,000 new projects annually, PwC Germany has established itself as the number 1 auditor and consultant for the DAX 100 companies.

Advisory, which covers most of any business's consulting activities was the business division at PwC, which had dedicated its experts for the benefit of this project. In particular, the team lead from PwC were from Transaction services which additionally includes M&A advisory, valuation and strategy consulting, and business recovery services focusing on the Technology, Media and Telecommunication sectors (TMT).

1.2. Market Overview

PwC's past deal experience and research on its *Global entertainment and media outlook* had shown that over the last years corporate M&A transactions involving the so-called digital natives - companies with new digital business models, internet based businesses etc. - have increased significantly. In fact, the M&A activity in digital media, information & technology increased by 48% in 2014 compared to the full year 2013 globally. In terms of number of deals, the growth rate was about 11% from 2013 to 2014, against more than 65% in 2013 from the previous year (Coady Diemar Partners, 2015). However, these digital deals differ significantly from deals with traditional companies. These differences stem mainly from 4 main characteristics of digital deals (Rossi , Tarba , & Raviv , 2013)(Appendix 1):

1. The company is usually young, underfunded with no or small positive cash flows in the near future

2. The assets of the companies are very limited (e.g. few physical assets and employees)
3. The future prospects of the company have high level of uncertainty due to unproven track record of the particular business model
4. The rationale of the deal puts more focus on technology, employees and possible network effects (rather than increasing market power, overcoming barriers of entry physical synergies, etc.)

Furthermore, transaction multiples in the digital sector are also currently at a very high level. Thus, for PwC it is important to understand how one could measure the "success" of these transactions and how some select group of global dealmakers have managed to be more successful than others.

1.3. Current Client Situation

PwC Germany is seeking to maximize the value brought to its Clients by developing services beyond the traditional deal portfolio. Since a year PwC Germany has been dedicated to the development of a solid TMT and online-based business model Client base that could compliment the already established traditional deal practice.

1.4. The Business Project Challenge

The challenge put forward by PwC Germany can be broken down in 5 parts that were analyzed and researched throughout the length

1. Defining digital deals and creating a market overview (main players including portfolio of international companies and their size; industries; type of business; biggest recent deals; difficulties & challenges; opportunities & prospects; main trends).
2. Selection of one or more market segments, which then are analyzed in more detail in order to create a landscape of the exciting digital environment and its biggest players.
3. Determination of the main success factors in the particular market segment and sets of KPIs (quantitative and qualitative) developed, which then are used to analyze the digital deal market segment and measure "success".
4. Perform research and benchmarking on what differentiates a digital deal from a "normal deal" and what dealmakers should take into account in the digital space.

5. Creation of a guidance framework for decision makers that intend to participate in digital M&A deals (coming up with hypothesis how companies can increase success and effectiveness when doing digital deals).

2. REFLECTION ON THE WORK DONE

2.1. Problem Definition

From the inception the project scope was rather broad and the guidelines from PwC left significant room for the project team's input to shape its direction. The main goal of the project was to implement a decision road map for digital investments which could be used by investment professionals as a guideline for understanding the quality and prospects of their potential investment. This goal was immediately met with potential problems to be solved throughout the project:

1. Definition of a digital deal – This hast be done in order to enable the project team to perform a consistent and in-depth analysis in the designated time constraint. The limiting of a scope to certain type of businesses or geographies enables a more comprehensive analysis.
2. Measurement of success – The conditions or criteria under which a deal can be seen as successful must be in place in order to draw conclusions and make recommendations effectively. Furthermore, key success factors have to be developed based on information gathered via market, academic research and expert interviews in order to develop hypothesis that can be tested.
3. Methodology used for the analysis – Frameworks that facilitate both qualitative and quantitative analysis must be developed in order to facilitate the value assessment of potential digital deals. Furthermore, selected case studies have to be chosen to test the validity of the frameworks and to present a snapshot of the latest developments in the sector or a particular industry.

Additional to the above mentioned points, the project has to add value to PwC both internally and externally. Internally the project should give a better understanding of the digital deal environment, particularly within the context of PwC's core business (e.g. transaction due diligence and strategy consulting). Externally this project should complement PwC's projects and Clients as guidance to advise dealmakers that venture into the digital sector.

2.2. Methodology

In order to develop the digital deal roadmap, the project team followed a three-step process that enabled the team to structure and perform key tasks at hand. The initial step was to perform industry and academic research in order to understand the latest developments and trends in the digital sector. The research was performed using publicly available material as well as databases (e.g. Thomson ONE, Bloomberg) and industry experts that PwC had dedicated to assist guide the project team through the process. This initial research stage was key in developing a definition for the digital deals that would be analyzed through the length of the project. The second step included interviews with experts with M&A, consulting and digital startups. By doing this the team gained an in-depth understanding of the latest developments of the industry, thus enabling the shortlisting of potential business models to be analyzed. Furthermore, the expert interviews improved the scope of literature to be analyzed and gave a solid knowledge base to develop a survey that would be conducted among other industry experts and eventually used for the development of the project hypothesis. The third step included case study analysis and hypothesis testing using our developed frameworks. The fourth and last step dealt with summarizing the project's findings and developing recommendations for PwC.

2.2.1. Industry and Academic Research

This research served as a basis for our study. An understanding of the digital mergers and acquisitions (M&A) in recent years had to be developed in order to decide the direction the project is going to take.

In industry research the project team looked at recent market developments worldwide, Europe (particularly Germany, France and the UK) and in the United States. This market overview served to improve the general understanding on how internet and mobile internet infrastructure had been evolving and how it could evolve in the near future. Furthermore, the team looked at transactions that had taken place in the past 5-10 years in some sectors that involve many new and fast growing digital companies (e.g. new media, advertising, travel, e-commerce, etc.). This enabled the team to understand the market dynamics, get an understanding of the dominating business models and potentially short list some deals that could be used as case studies at a later stage of the project. Finally, the team looked at ongoing research from several sources (e.g. MIT CISR) to understand the impact of the internet on the modern day businesses (digitization) and the changing landscape and types of

business models that are prevalent today and in the near future. This gave an insight into company decision making and strategic rationale behind certain digital acquisitions.

The academic research part focused on distinguishing the traditional and digital or technology M&As. Academic papers and books on traditional M&As were used as a starting point due to the vast amount of studies that have been conducted and also because there are some fundamental similarities between traditional and internet deals. The literature on technology or internet M&As however was rather scarce due to it being a relatively new sector. Nevertheless, this served as a significant basis to build around and make assumptions that could be further tested through expert interviews and surveys.

2.2.2. Definition of a Digital Deal

In order to provide consistent analysis that is feasible in the designated time constraint, the analysis was limited to a certain type of digital business model. In particular, the constraint would only apply to the target company (company being bought) since the targets are the ones that are being valued. During initial research and guidance sessions with PwC the decision was made to eliminate traditional ecommerce businesses that had its own inventory (e.g. Zalando, Amazon.com[1], etc.) and B2B IT service providers (e.g. Google, Microsoft, SAP, etc.). The main intuition behind this decision is that inventory and warehousing is a critical asset in the company valuation, nevertheless it can be valued using conventional methods. The intent of this project was to explore businesses that are pure online players (very little tangible assets) with assets that are harder to put a price tag on. Furthermore, the decision to eliminate B2B players was based purely on lack of information and data availability that would be crucial for the case study analysis going forward. Thus, the companies used for the case study analysis would be based on the following criteria:

1. Online Centered Business Model – Online platform serves as the main communication or transaction channel and the website[2] is the company's main asset.
2. B2C Focus – Direct contact with an end user or customer.

These two criteria gave the project a focus, but also a sample large enough to be able to gather information on the particular transactions. The main types of business models that fit the above mentioned criteria are transaction brokers or market places (e.g. eBay, Gumtree,

[1] Amazon.com is used in one of the case study as the acquiring company buying Twitch, which is a video streaming service. Hence the definition holds.

[2] Mobile Apps were excluded from the analysis due to lack of public data and access to databases

etc.), social networks (Twitter, Facebook, Tmblr, etc.) and other like video streaming services or gaming sites.

2.2.3. Expert Interviews

The expert interview greatly compensated for the lack of available information and research on digital M&As. The experts were selected based on the following fields:

1. M&A expertise – Candidates have been involved in transactions that fit the above-described definition of digital deals.
2. Digital/Startup expertise – Candidates are well familiar with the startup industry, current challenges and general organization within.
3. Experience with major internet players – Candidates have experience with major players like Google, Amazon, Rocket Internet and others, thereby possessing knowledge of KPIs that these companies use.
4. TMT or related industry expertise – Candidates are well familiar or have work experience in the industry and understand the dynamics.

The expert was contacted if he/she complied with at least two of the above mentioned criteria. The interviews were focused on providing feedback on the research conducted by the project team, latest developments and insights within the industry as well as understanding the key success factors of big internet players and startups. In total 5 industry experts were interviewed (list of interviewee CVs can be found in Appendix 2). The combination of expert interviews and research enabled the team to assemble a preliminary list of relevant key success factors that would serve as a basis for the broader expert survey.

2.2.4. Survey

The survey (transcript in Appendix 3) used for understanding the most relevant KPIs in digital companies was structured and executed in the following manner:

1. Target group – The survey targeted respondents who are familiar or have had experience with companies that operate in the digital space. The respondents were targeted within the Internet, New Media, Telco, IT, Consulting and Startup sectors.
2. Sample size – The CEMS Alumni network served as the main source for respondent contacts. Additionally personal contacts and personal references were utilized to increase the sample size.

3. Contact list – The total sample size reached 150 contacts with a response rate of around 15% (22 respondents). Out of 150 contacts 130 were CEMS Alumni and 20 were personal contacts.
4. Key dates – The initial survey was distributed among the contacts on 23. June 2015, a reminder message was sent a week later on 30. June 2015 and the final results collected a week later on 7. July 2015. Thus, in total respondents were given 2 weeks to compete their answers.
5. Tools used – The platform used to create and collect the survey results was Forms by Google.

2.2.5. Hypothesis

The combination of research, expert interviews and survey gave the project appropriate base to develop hypotheses that could be tested using the data available. In particular, the project team explored two hypotheses, were Hypothesis Nr.1 (H1) was derived from industry and academic research (described in Part 3) and Hypothesis Nr.2 (H2) was derived with the help of the expert interviews and survey results. The hypotheses and their research purposes are described below.

H1: Companies that acquire targets with online business models tend to do so in order to create an ecosystem-like environment and increase its knowledge of its end consumer.

H1 explores the strategic fit between the target and acquirer company. The underlying argument is that due to increased digitization companies worldwide are changing or supplementing their business models through acquisitions of targets that operate in the digital space. Furthermore, the target companies not only add potential revenue to the whole entity, but also strategically make sense, thereby positioning the acquirer in a position that is better suited for adjusting to digitization. The strategic fit and company business models were mainly analyzed using detailed broker notes from databases like Thomson ONE and public press releases. The framework used (Appendix 4) for testing H1 is adapted from Weill & Woerner (2013) from MIT Center for Information Systems Research and is further explained in Part 3.

H2: The success of the target companies that operate within the digital space can be determined by evaluating the market attractiveness and the digital competence of the business.

H2 evaluates the business model of the target company. The underlying assumption is that the main drivers behind growth and profitability of a digital company is its ability to operate in an attractive market and perform in certain digital key competencies. The framework was created by the project team as a result of the expert interviews and survey results (described in further detail in Appendix 5) and represents a simplified model on how to evaluate a digital company. A successful deal in the context of this framework is defined as the target company's improvement along the "Digital strengths" and "Market attractiveness" axis post-acquisition. A failure, on the other hand, is the target company's inability to improve its position along the axis or even decrease from its previous position. Digital strengths consists of online specific KPIs related particularly to the website that were gathered during the process and obtained using the database Alexa Internet. Market attractiveness consists of KPIs that are specific to a certain market (country or industry) in which the target company operates. These KPIs were also obtained either Alexa Internet or Thomson ONE.

2.2.6. Case Studies: Selection and Analysis

The M&A deals used for the case studies were gathered using S&P Capital IQ and Thomson ONE and were selected on the following criteria:

1. Timeframe – From 2012 to 2015 (due to data availability on key databases like Alexa Internet, which only has data for the last 3 years)
2. Size – Out of a sample of around 3600 deals that occurred from 2012 to 2015 and fit the criteria the largest deals (deal value) were selected mainly due to information availability and press coverage.
3. Acquirer – The acquiring company had to be publicly listed in order to provide access to detailed broker notes in Thomson ONE and disclosure on other relevant company information.
4. Geography – Due to the fact that many large and important digital deals occur outside Europe there were no geographic limitations to the deals selected.

The biggest challenge however was the data availability. For these kind of deals even the most basic metrics such as transaction value or revenues are in most cases not publicly

disclosed. Nevertheless, by using the above mentioned and rather lenient criteria the project team was able to list 20 M&A deals from 10 different countries covering all major digital verticals.

The case study analysis was performed in two parts:

1. Transaction overview
    a. Transaction details – Overview of transaction value multiples and target financials.
    b. Strategic rationale – Reasoning behind the transaction (What does the acquirer want to achieve? Are there synergies between the companies?)
    c. Main result – Descriptive overview of post-acquisition business development including internal (management) and external (media, analysts) view of the transaction.
2. Evaluation of success (H1 and H2 testing)
    a. (H1) Ecosystem framework – Evaluation of whether the acquisition is in line with the assumptions of digitization
    b. (H2) KPI Analysis – Evaluation of the developments of the target company's KPIs pre and post-acquisition.

A complete list of M&A deals used can be found in Appendix 6.

2.2.7. Work Plan

In the initial phase of the project a rather detailed work plan outline was developed together with the PwC team (as seen in Appendix 7). This enabled both the project team and the Client to effectively schedule status meetings and evaluate the ongoing progress. The work plan outlines tasks that were completed in a time span of 3 months (April – June) with another month dedicated to the incorporation of feedback from the Client's side and the completion of the final report. A detailed work plan was the key in keeping the project team on track, especially since the initial scope of the project was rather vague and took time to shape into what it eventually turned out. The work plan structure was kept till the completion of the project and no major deviations were made to the timeline.

2.3. Results and Key Findings

In order to gain an understanding of the current digital landscape the project team performed a market overview analysis that included both industry and academic research.

2.3.1. Industry Research

A thorough industry analysis was performed in order to understand the current developments and trends. The key findings are summarized below:

Fast growing digital population[3] [4] [5]

1. *Developing countries are driving the growth of digital population.*
2. *Mobile, through smartphones, is a strong factor of digital population growth.*

Internet Users Worldwide - The compound annual growth rate over the 2005 to 2014 period is 12.6% (developed: 5.3% and developing: 18.9%). Furthermore, in 2014, there were 2.9bn Internet users worldwide, with an Internet penetration rate of 40.4%.The growth is mostly driven by developing countries where the number of user have more than tripled over the period (circa. 1.9bn users in 2014). The Internet penetration rate remains very contrasted between developed and developing countries, with 78% against 32% in 2014. (Appendix 8a)

Internet Penetration -The Asia & Pacific region represents by far the largest region in term of users with more than 1.3bn. However America and Europe show the highest level of internet penetration rate. The lower penetration rates in developing countries explains the much higher growth rates of users (e.g. 2005-2014 CAGR in Asia & Pacific of 16%). Africa stands out with only 19% of internet penetration, but the regions benefits from the highest growth rate, with a 2005-2014 CAGR of 29.6%. (Appendix 8a)

Mobile Phone Ownership Worldwide - The compound annual growth rate of the ownership over the 2010 to 2015 period is 30.2% for smartphones versus -0.4% for non-smartphones. In 2014, the smartphone sales accounted for two thirds of the mobile phone sales worldwide, with than 1.2bn sales. The share of smartphones of total phone ownership has tripled over the last 5 years. Smartphone ownership is expected to overtake non-smartphone ownership by 2018. (Appendix 8b)

Smartphone Penetration Rate in 2013 - On the contrary to internet penetration, the gap between developed and developing countries is not as striking. Japan is clearly ahead, with a rate of 86%. US and Western Europe have similar penetration rates with room to grow. India entails a huge growth potential, reflected by forecasts for the future years: 25% in 2015 and up to 72% in 2017. (Appendix 8b)

[3] Sources: PWC Global Entertainment and Media Outlook 2015-2019
[4] ITU (http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx
[5] Xerfi global, Gartner and eMarketer

***Main players*[6]**

1. *Four main players are trying to benefit from the digitization trend and shape the digital landscape.*
2. *Within the Digital M&A landscape, deals sizes tend to increase.*

Dominating Businesses - There are four types of players trying to benefit from digitization and trying to shape the digital landscape (Appendix 8c):

1. Traditional Media Companies: need to replace traditional business models with digital
2. Big Internet Players: leverage their dominant online presence to expand into different segments
3. Private Equity / Venture Capital: mainly focus on financial returns
4. Start Ups: narrow focus on specific business model

Digital M&A Deals - In 2014, M&A activity in digital media, information & technology reached $225bn. M&A activity in digital media, information & technology increased by 48% in 2014 compared to the full year 2013. In terms of number of deals, the growth rate was about 11% from 2013 to 2014, against more than 65% in 2013. In fact the average transaction value in digital media, information & technology was a bit less than $75m in 2013, whereas it reached circa $100m in 2014. (Appendix 8d)

Size of Digital M&A Deals - There is a clear trend over the period of 2012 to 2014, since deals size increases over the period. Indeed the number of deals under $50m decreased by more than 10% from 2013 to 2014. All other subcategory have a higher or the same number of deals over the period, especially the $1 to 5 billion category which increased by more than 60% from 2013 to 2014. (Appendix 8d)

Digital M&A Deals by Segments - Ad tech & service with 379.4%, Mobile with 157.3% had by far the highest CAGR over the 2012-2014 period. Ecommerce with 141.7% and Social Media with 138.8% also showed very high growth rates in 2014. Conversely the total value of M&A transaction in the Digital Content segment decreased by more than 20% in 2014. In absolute value, Software (21.7%), Mobile (17.8%) and Digital Content (17.1%) accounted for more than half of the M&A activity in 2014. (Appendix 8e)

***Impact of Digitization*[7]**

1. *Internet is becoming one of the dominant advertising media format.*
2. *Mobile Internet advertising will have the strongest growth in the coming years.*

[6] Source: Coady Diemar Partners - Digital M&A in Review - Deal Maven - 2013 and 2014
[7] Source: Xerfi global, Gartner and eMarketer

Advertising Spending by Media Format (2013) - TV is by far the major media, concentrating 39% of the advertisement spending with a total of 131.3bn euro spent in 2013 worldwide. Desktop Internet advertising is already the 2nd media with 18% of the spending, slightly higher than newspapers which represent 17% of the spending in 2013. Mobile Internet advertisement spending remains a very small share of the global spending in 2013, representing circa 3%, whereas radio, magazines and Outdoor advertising spending all still represent more than 5%. (Appendix 8f)

Advertising Spending 2016 Forecasts by Media Format - Digital media will benefit from the strongest growth, whereas the advertisement spending in newspapers and magazines should decrease between 2013 and 2016. The spending in mobile Internet should more than double and represent 8.2% of the total spending in 2016 (versus 3% in 2013). If TV should remain the first media in terms of advertisement spending, Internet Desktop will narrow the gap, reaching 20% of the total spending in 2016. (Appendix 8f)

Trends[8] [9] [10]

1. *Developing countries are rapidly growing and represent great opportunities.*
2. *In line with the previous conclusions, mobile is the most promising sector in the near future.*

Regional trends - China, India, Brazil and Singapore entail the largest growth potential, based on institutional, market and innovation environment. Within Europe, Germany and the UK are expected to be the most active regions in terms of digital M&A.

Sectorial trends - The most promising segments are mobile and business intelligence/big data. In terms of M&A, cloud computing and mobile are expected to be the most active segments, in line with the sectorial expectations. (Appendix 8g, h, i, j, k)

2.3.2. Academic Research

Academic research on the evaluation of M&A success revealed the following insights. According to Epstein (2005), achieving success in an M&A deal requires he simultaneous accomplishment in six following factors: Strategic vision and fit, Deal structure, Due Diligence, Pre – M&A planning, Post - M&A integration, External factors (elaborated in

[8] Source: Chakravorti, B., Tunnard, C., & Chaturvedi, R. S. (2014). Digital Planet: Readying for the Rise of the e-Consumer. The Fletcher School.,

[9] Oxford Economics. (2011). Digital Megatrends 2015 - The Role of Technology in the New Normal Market. Oxford.

[10] Pinsent Masons. (2014). Ahead of the curve: the growth of European technology M&A. Mergermarket Group

Appendix 9a). More recent research by Gomes, et al. (2013) focuses on factors that are critical to take into account before the M&A deal, namely: Choice and evaluation of the strategic partner, paying the right price, size mismatches and organization, overall strategy and accumulated experience, courtship period, communication and future compensation policy (elaborated in Appendix 9b, c, d). Finally, research analysed in the technology sector looked at success and failures in technology acquisitions. The research of Graebner, et al. (2010) found that in order to conduct a successful technology M&A transaction, the most important aspects influencing the deal outcome are the acquirer's motivation (e.g. enhance market power, achieve strategic renewal or add a strategically valuable resource) and performance (e.g. selecting the right target that balance and complement existing resources), which can be seen as an equivalent to strategic fit (elaborated in Appendix 9e).
Further academic research used in the report by Weill & Woerner (2013, 2014) are summarized in part 3.2

2.3.3. Expert Interviews

Each of the 5 expert interviews conducted dealt with experts from different fields however with a common expertise in digital companies. The key takeaways from the interviews were as follows:

M&A expert (Markus Müller, PwC) - Markus helped the project team understand the main differences between traditional M&A models and the limitations of applying traditional frameworks to digital deals. Traditional M&A frameworks would prove to be irrelevant for our study. Furthermore, Markus elaborated on the main challenges that deal-makers currently face, when it comes to digital deals, and highlighted the two following points:

1. There is no such a thing as a standard approach to tackle research on digital deals. Thus far, the academic community hasn't been able to establish a single and comprehensive method to analyze even traditional deals. Therefore for digital deals it is even more complicated: there is a lack of knowledge and it's a topic that just few have started doing research on.
2. The research currently conducted by the project team will be very unlikely to come up with a complete framework or methodology, nevertheless the work is indeed pioneer in the field and will be very relevant to guide next researchers on the topic.

Commercial expert (Tim Feld, PwC) - Tim‘s experience helped the project team build a more robust process for data and information collection both from surveys and expert interviews. He proposed a two stage research approach:

1. Stage one consists of developing general interview and survey guidelines, which would help the interviewee understand what the actual situation and overall knowledge of the problem addressed by the project team is. This stage can be scaled to target more people that do not necessarily have to be experts, but can also be familiar with the topic.
2. Stage two consists of a more detailed guideline, which is applied to the survey, to identify and shortlist the main KPI‘s or KSF‘s for the performance of a digital company and what an M&A transaction for one of these companies would entail. For this stage, a very complete guideline should be developed, as the chances to find and interview experts in these specific topics is slight. The idea of this guideline is to allow the project team to extract as much information as possible in a limited amount of time.

Rocket Internet insider (Laura Korcik, Strategy&) - Laura was able to elaborate on the logic behind Rocket Internet‘s expansion strategy, its main drivers, risks and challenges using the example of Zalora. Rocket’s key drivers upon making an investment decision are macro country indicators such as Internet penetration, user growth, smartphone penetration, Internet coverage and purchasing power. Laura, along with Marcel Hoeke, agreed that the quality level of IT in a company is not one of the biggest concerns in the industry, as the base level in which these companies operate is already relatively high and one of the least costly decisions when expanding. Furthermore, Laura highlighted the importance of the people working in the companies and the processes set in place to make them work as intended. One of the biggest concerns for dealmakers is the decision making with regards to the existing staff and the key people, managers and processes.

Entrepreneur (Marcel Hoeke, Strategy&) - Marcel provided the team with insights on reasons for doing deals in the digital sector (e.g. expanding customer base, connections to other companies, customer retention and new product offering). Like, Laura Korcik, Marcel highlighted the importance of the team behind a company and the processes taking place, rather than the IT capabilities, which can be easily fixed for a relatively low cost. Interestingly and contrary to widespread belief, according to Marcel, being the first mover in

a market is not necessarily a reason for success, but rather the robustness of the business model and the scalability in its design. Sometimes it is much better to buy a second player in a market and providing them the necessary resources to scale their business, rather than buying the top company in the market, which has technically the same potential, at a much higher price.

Google insider (Tom Zacharski, Google) - Tom elaborated on the different stages in a customer value generation for a company: from the use of apps for a more exploratory visit, to making the final buying decision from a desktop computer or laptop. These insights stressed the need for further research in the area of apps in order to complement the current research. Tom also highlighted the importance of quality teams in startups and their proportionate value to the overall company, especially if companies are less than 5 years old. Thus, human capital can be considered as one of the few KPIs that is common across various digital business models. Other KPI‘s that should be considered and further investigated include: click-share, monthly uptime, separation between the source of access (mobile apps, mobile browsers, desktop computer). Furthermore, Tom stressed the importance of segmenting the market in more detail according to business models (e.g. E-commerce, Cloud services, Internet messaging, etc.).

2.3.4. Survey Results

Using a list of 150 contact the project team was able to get insights from 22 participants with significant experience in the digital sector. The participants were mainly from the Internet, New Media, IT and Consultancy sector. On average, the participants had been involved in 2 (1.7) M&A deals involving a digital company in the past, 3 (3.4) consulting projects related to digital business models and worked for 2 (2.3) startups with an online based business model. The respondents were asked to evaluate the key success factors related to Market Attractiveness, Digital Competence and Human Capital of an online based business model ranking them from 1 (Least Important) to 7 (Most Important). Finally, the respondents were asked to rank the 3 above mentioned combinations of factors according to their importance. The results for each of the questions asked in the survey are presented in Appendix 10 and key takeaways summarized below.

The most important factors for assessing whether a potential transaction could be a success is a set of quantitative and qualitative indicators evaluating both internal and external aspects of the online business. The respondents ranked the set of KPIs in the following order:

1. Human Capital and all respective qualitative factors play the most important role in assessing the potential success of an acquisition of a digital company. The most important KPIs include Company's values and culture, Innovativeness of management, Innovativeness of team, Management experience and background.
2. Digital Competence is obviously a critical aspect of a company. The top 10 digital metrics are as follows: Customer Satisfaction, User Growth, Conversion Rate, Average Revenue per User, Customer Churn Rate, Cost of Retention, Cost of Acquisition, Registration, Unique visitors, Net Promoter Score.
3. Market Attractiveness can solely be assessed on quantitative indicators. However it is not as relevant as the management team and the digital competence. Most important KPIs include Market growth, Internet/mobile penetration and Scalability of the business.

2.3.5. Case Study Results

The case study analysis identified two dominant business model types present in the selected deals: Ecosystem Driver and Modular Producer. Moreover, the analysis shows that there have been common reasons for both success and failure, which potential decision-makers should learn from. Using the frameworks developed throughout the project the team identified 11 deals that could be considered successful and 9 deals that were deemed failures.

The common reasons for the deals being **successful** included:

1. **Clear strategic fit**: the target or acquirer business being either ecosystem driver or modular producer; ecosystem drivers have a higher chance of success (75% of ecosystem deals have been successful thus justifying Hypothesis Nr.1).
2. **Low integration:** operating the target business on a standalone basis and simply financing growth (e.g. Seloger Deal).
3. **Geographic expansion:** buying a target with a similar business model, but operating in a different market (e.g. Streeteasy deal).
4. **Market share:** buying the number 1 or 2 player in the specific segment: achieving a critical size as soon as possible is crucial (e.g. Car&Boat Media deal).

The common reasons for the deals being **failures** included:

1. **Pushing for profitability:** focusing on monetization too early in order to justify investment – often resulted in lower user growth due to conflict with user experience (e.g. Tumblr deal).
2. **Overestimation of synergies**: operational synergies are limited for digital businesses and business models relying on advertising usually also have limited synergy potential.
3. **Loss of human capital:** founders/management leaving has been a common factor of failed deals (e.g. Tumblr deal).
4. **Selecting the wrong vertical:** digital landscape changes fast and business models have to adapt (e.g. coupon industry).

The above mentioned reasons for success and failure allowed the project team to draw some conclusions in 3 key areas of M&A that are specific to digital deals.

1. **Integration** - The degree of integration can have a large impact on the future prospects of the target company. While it naturally depends on the specific situation, not integrating the target company has yielded better results on average. For ecosystem drivers, it makes sense to have a higher degree of integration. For other strategies, the most successful acquirer mainly supported the targets financially and the target continued to operate on a stand-alone basis.
2. **Involvement** - After the acquisition, the acquirer management often has the urge to implement changes in the target company. The founders usually know their company inside out and the acquirer management should always include them in the decision process. In some cases, the management left soon after the acquisition, which has always been a bad sign. Since Human Capital is one of the key success factors, this should be avoided by all means.
3. **Synergies** - Operational synergies are generally not as important for digital deals, because there is limited potential for cost savings due to the nature of digital business models. Instead, the target should focus on creating synergies for the users. If the target can enhance the user experience by adding the services of the acquirer, the deal will most likely be successful.

2.3.6. Final Recommendations

The final recommendations were delivered in the form of a guidance framework (as seen in Appendix 11). Nevertheless, taking into account the limitations (discussed in part 2.4) the

hypotheses developed prior to the case study analysis were rather problematic to test. Both H1 and H2 were developed complement each other in the analysis and on a standalone basis would not be able to prove the success of a digital deal. For completion of the guidance framework, the companies need to be analyzed in further detail in order to understand their strategic rationale for acquisition. Furthermore, data availability is essential in analyzing the KPIs in order to test H2. Nevertheless, the guidance approach was discussed throughout the expert interviews and as an approach how to look at digital deals received acceptance, taking into account the limitations.

2.4. Concerns and Limitations

Previous Research - The initial limitation is obviously the lack of previous research on digital and technology M&As that the project could be based on. As determined during the expert interviews, traditional methods of evaluating M&A success does not apply to digital deals.

Data Availability – This is a crucial limitation to the evaluation of each particular business and case study. As determined throughout the research, financial aspects of a digital company are not the most crucial factors in determining the quality of the business. Hence, traditional databases like Thomson ONE are not able to provide the necessary metrics for a thorough business analysis. Furthermore, databases like Alexa Internet provide data only for the previous 3 historic years and deals only with web traffic data (as opposed to internal company data). This automatically reduces the amount of deals that can be analyzed and disables any possibility of performing a longer term statistical analysis on KPI performance and their actual relevance and significance. A database like comScore would be desirable in a project of this scope (providing online and company specific metrics). Nevertheless, the budget dedicated from PwC did not allow for the purchase of comScore.

Sample Size – As already mentioned, the smaller sample size did not allow the project team to find enough deals that fit the predefined definition and at the same time could be segmented into different business models for a comparative study in order to incorporate the feedback from the Google expert.

Exclusion of Apps – By excluding Apps and other business models from the analysis, a major part of the current deal base is excluded from the analysis. The decision to exclude Apps was made due to the lack of available data for the analysis of the key KPIs. Databases that provide App specific metrics exist (e.g. App Annie), however the purchase of this database was also beyond the provided budget of PwC.

Industry Insights and Expert Surveys – In order to draw more precise conclusions additional expert interviews would be desirable. A larger sample of experts would not only provide more insightful information, but also provide a larger base for industry survey responders. During the project survey respondents did not only give advice, but also expressed interest in the project (e.g. from Google and several startups) and its outcome. This means that there might be gaps in the general industry oversight and knowledge and there is significant room for potential future research in a wider scale.

3. REFLECTION ON LEARNING

3.1. Previous Knowledge

In the scope of this project, some previous knowledge provided to be useful from the topics covered in the courses of E-Commerce[11] and Corporate Strategy[12].

The E-Commerce course replicated the creation of an e-commerce company and covered major aspects of its value chain. The course provided a practical and entrepreneurial tools and knowledge to build a successful e-commerce operation either as a stand-alone operation or as part of a larger corporation. The key practical aspects applied from this course included making a high level viability assessment of online business models, as seen in (Rappa, 2010), understanding the key components of the e-commerce value chain and how they relate to each other and developing and understanding key performance indicators for online businesses.

The Corporate Strategy course, with the combination of theoretical concepts and real business world examples, gave an introduction to the most important management issues faced by the CEOs of corporations and provided a set of concepts and tools to deal with the most relevant strategic and organizational issues at the corporate level. Particular theoretical aspects that gave inspiration on how to look at digital companies came from an article by Michael E. Porter (1987) that was analyzed during the Corporate Strategy class. Porter (1987) describes four concepts that rest on different mechanisms by which a corporation creates shareholder value; Portfolio Management, Restructuring, Transferring Skills and Sharing Activities. The Portfolio Management Concept is based on diversification through acquisition across industries and sectors. Shareholder value is created first, by identifying

[11] Course by Prof. David Bernardo, Term 1 2013/2014 at Nova SBE
[12] Course by Prof. António Bernardo, Term 1 2013/2014 at Nova SBE

attractive acquisition targets, second, by providing capital and management skills and finally by providing high-quality review and coaching (Porter M. E., 1987). The Restructuring concept describes companies that are undeveloped, distressed or in industries on the verge of significant change. The acquirer or parent intervenes, frequently by changing the management team, shifting strategy or infusing new technology (Porter M. E., 1987). The Transferring Skills concept applies to knowledge sharing in separate business units that occurs due to similarities in buyers and/or distribution channels. And finally, the Sharing Activities concept is based on sharing activities like distribution and sales force in the value chains among business units. The ability to share activities is a potential basis for corporate strategy, since sharing often enhances competitive advantage by lowering costs or raising differentiation (Porter M. E., 1987). These concepts did give a background insight on how companies (and also digital companies) approach strategy and the creation of their competitive advantage.

The combination of knowledge from both courses enhanced the understanding of the fundamentals of corporate strategy in general and the changing business model landscape that occurs due to the increasing use of internet, thereby contributing to the eventual development of the Ecosystem Framework and KPI Analysis used in the digital business model case studies.

3.2. New Knowledge

From a personal perspective new knowledge was acquired both on a practical and a theoretical level. From a practical standpoint, the project allowed for creativity in certain areas of research and analysis. For example, the lack of previous research on the topic of digital M&A analysis allowed the project team to develop its own framework for the KPI analysis. As mentioned before, inspiration for this framework was taken from the research of Porter (1987) and background research in the field of e-commerce. An example of the framework can be found in Appendix 12.

From a theoretical standpoint, the most valuable insights were gained through analyzing contemporary research on digital business models from Weill & Woerner (2013, 2014) at MIT CISR. Particularly the research on business ecosystems provided to be insightful and useful for the scope of this project. A business ecosystem can be thought of as a coordinated network of enterprises, devices, and consumers that creates value (Weill & Woerner, 2013). The activities of a business ecosystem include transactions and other exchanges enabled by

digital connections (Weill & Woerner, 2013). Including a greater number of participants creates a vibrant ecosystem that can increase innovation and consumer choice through increased diversity, allowing participants to draw from a broader range of experiences. Weill & Woerner (2013) argue that companies that operate in an ecosystem-type environment (e.g., more networked, with more information and feedback loops) have been outperforming more traditionally managed firms which generally model themselves on mechanical systems (e.g., linear value chains). Furthermore, companies fostering an ecosystem environment show market returns of 3% on average above the FTSE World Index, the MSCI World Index and the S&P Global 100 in over the 1995 – 2014 (Bragdon, 2015). Nevertheless, majority of companies today don't operate in an ecosystem, but rather control or participate in a more linear value chain as described by Michael Porter (1985) (Weill & Woerner, 2013). However, this is changing, as increased digitalization of business is enabling consumers and companies to seek out the benefits of ecosystems. Ecosystems typically include two types of players: Drivers (set the rules) and Participants (adopt and help improve those rules). The rules are supported by collaboration practices and contracts, which specify participants, process for setting prices, IP and data ownership, payments, security, etc. (Weill & Woerner, 2013). Thus, Weill & Woerner (2013) argue that organizational leaders have to make two choices, creating four distinct business models with associated capabilities and relationships and all four business models are viable today, each with distinct opportunities and challenges. This research was also used to develop one of the hypothesis of the project and the framework adapted to analyze the case studies. The complete research and details can be found in Appendix 13.

3.3. Personal Experience

As a group (Team CVs found in Appendix 14) I believe we represented a diverse group with different experiences, skill sets and competencies. Having several nationalities in one group is always beneficial for the development of cultural awareness skills that are essential in today's economy and working environment. From the positive aspects, we performed well as a team by planning and executing to the upmost. Furthermore, we strived not only to produce a deliverable, but also to learn as much as possible about this rather new and exciting industry and to act and deliver as true professionals. This led to our team winning the Business Project Mid-Term Competition at the University of Cologne. Nevertheless, aspects that would have needed improvement would be the delegation of tasks within the team. A failure to

successfully delegate the appropriate tasks to the person that is most capable of executing it can have a ripple effect and lead to delays and miscommunication. In our case, as a group we failed to delegate a key task (point of contact to the Client) to the most capable person in the group. This eventually led to miscommunication and loss of credibility (e.g. no responses to client emails, typos in the communication emails). This of course has to do with different quality standards and the sense of responsibility that are obtained through years of education and work experience. Hence leaving this simple, but key task to the most inexperienced team member was considered a mistake. As this was also a learning experience, decision within the group was made to have more frequent feedback loops (through weekly internal calls) and a "second set of eyes" policy that eliminated the possibility of miscommunication and loss of credibility.

From an individual perspective, I was very excited about the project and its topic, since it is of great interest to me. Furthermore, it was very insightful to work with a company like PwC and to learn and experience what typical projects and research is done on an everyday basis. During the project and the group work, it was very useful not only to learn about new interesting topics and developments, but also develop individual skills. The key takeaway, from my perspective, is that managing the microclimate within the group is just as essential as producing quality output, and in fact, they go hand in hand. I can surely say that this experience has emphasized the importance and improved my communication and people management skills in general. Thus, I think that it is not only important to constantly develop professionally by developing new skills and knowledge, but also to work on emotional intelligence in order to understand and relate to people around you, in order to stimulate effective and productive human interaction.

3.4. Benefit of Hindsight

Looking back at the project there are some aspects that could have improved and maximized the potential of the project.

Project Scope- The project's broad definition and scope of the project had both positive and negative aspects to it. On the positive side, the vague scope enabled the group to venture and explore the topic more freely. Nevertheless, the main drawback to this approach is that initial definition of the scope takes time that could be otherwise used to perform a more in-depth analysis in certain aspects (e.g. analyze more case studies and business models, refine the frameworks for analysis).

Expert Interviews – Knowing what we know now, key insights and guidance were gained from the expert interviews. Particularly for projects where the topic has not been widely researched, it could be useful to perform these interviews at an early phase in the project development as opposed to during its middle.

4. CONCLUSION

This project aimed at creating a guidance framework for decision makers that intend to participate in digital M&As. In order to achieve this the project team performed industry and academic research, and conducted expert interviews and surveys. A thorough industry analysis revealed the major trends in digital M&As in the recent years, changing business model patterns and the huge growth potential for the future. Nevertheless this was met with a rather incomplete academic review since research on the subject of digital and online business models and M&As is rather scarce due to the industry being relatively new. Recent studies, however, revealed that the growth of internet penetration and increasing frequency to conduct business online (digitization) worldwide is increasingly posing a threat to traditional business models and that the majority of company executives acknowledge this. The increasing awareness of digitization will result in traditional companies exploring the possibilities to operate their business online. Thus the options for the company future are either to develop the online business organically or engage in M&As. Due to the fast paced nature of the industry, M&A is by far the quickest solution. Nevertheless the lack of a standardized company evaluation mechanism renders the perception of a digital company's value drivers and key performance indicators rather vague. The expert interviews and surveys revealed some commonly regarded key success factors that drive the value of a digital company, nevertheless they also stressed the variability of the success factor importance according to the digital company's business model. With this information in mind the project team created a guidance framework that evaluates the deal success based on the overall company strategy and the key success factors of the digital company. Due to lack of information availability and the obvious time constraints, the framework serves as a skeleton for further research and analysis. In order to fully complete the guidance framework, extensive and industry wide survey has to be conducted and future research focused on creating a robust analysis per online business model segment and the key success factors within these segments.

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6. APPENDIX

Appendix 1

Differences between Digital Deals and Traditional Deals

The specifics of digitals deals prevents the use of tradition M&A frameworks to assess their success.

	Digital deals	*Traditional deals*
Target companies specifics	▪ Young ▪ Underfunded ▪ **No positive cash flows in the near future**	▪ *Usually established companies*
Assets	▪ **Few physical assets** ▪ Few employees	▪ *Depends on the industry*
Future prospects	▪ **High level of uncertainty** ▪ Unproven and uncharted business models and sectors	▪ *More predictable development of revenues* ▪ *Established industries and business models*
Main rationale	▪ **Technology** ▪ Employees ▪ **Network**	▪ *Increasing market power* ▪ *Overcoming barriers of entry* ▪ *Physical synergies* ▪ *Etc.*

Source:Rossi (2013).

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Appendix 2 (a)

Expert Interviewee Profile

M&A Expert – 1st Interviewee

Markus Müller	*Relevant Information*
 **Manager M&A** *Frankfurt Am Main* *PwC* **Executive summary** *Manager in M&A at PwC since 2014 with additional 6 years of experience in M&A and Venture capital.* **Relevant expertise** *M&A, Venture Capital* **Education** *WU – Vienna University of Business and Economics. Msc. in Business Administration*	• Having **experience in Mergers and Acquisitions and Venture capital**, Markus has a great knowledge of how the Startup market works. Being familiar with what we defined as "Digital deals", he could help us define the first and most important steps in our research. • Being vice-president in Doertenbach & Co. for several years Markus gathered most of is experience, advising a **great number of deals concerning Internet companies.** • As this was the **first expert interviewed by the team**, the questions prepared aimed to generate an overview of the industry and its players from the perspective of a deal-maker.

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Appendix 2 (b)

Expert Interviewee Profile

Commercial expert – 2nd Interviewee

Tim Feld

Principal TMT & Travel
Frankfurt Am Main

Strategy Group PwC

Executive summary
Principal TMT & Travel in PwC's strategy division
Relevant expertise
More than 12 years transactions and strategy advisory experience in TMT.
Education
• Stanford University
Telecommunications, International Investments, International Economics
• University of Paderborn
Management and Industrial Engineering

Relevant Information

- Tim has a particular **focus on cable and telecom operators, digital media, cyber security and (online) travel**, which is strongly related to the topics the CEMS team is interested in, therefore making Tim a very valuable interviewee.
- Extensive experience **in developing digital business models for media companies**, mapping out organic and inorganic growth strategies (e.g. cyber security) for corporates and turning around companies in distress
- Proven track **record of supporting corporate and private equity** clients with commercial due diligence services from small-cap to blue chip companies.
- Tim has **experience in market research and information collection**, the CEMS team expects Tim not only to provide valuable insights on the task itself but also feedback and **guidance on the methodology** that the team has proposed and is following.

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Appendix 2 (c)

Expert Interviewee Profile

RocketInternet expert – 3rd Interviewee

Laura Korcik

Senior Consultant
Berlin

Strategy&

Executive summary
•Strategy development, post-merger integration, operations optimization and process improvement with focus on Consumer & Retail and Telco.
Relevant expertise
•Industry expertise in Consumer & Retail, especially e-commerce; Telecommunications, Media & Technology; Engineered Products
Education
•M.Sc. Strategic Management, Rotterdam School of Management

Relevant Information

- Laura has a strong **expertise in Consumer & Retail, especially e-commerce**; Telecommunications, Media & Technology and Engineered Products. She is currently working in strategy development for luxury goods, an industry that has slowed down in the last years, proposing ready-to-implement strategies and process improvements.
- Additionally, Laura has **worked in optimization projects in e-commerce** companies in South-East Asia, getting deep into the "digital industry". Thus, she offers a high potential of providing very valuable input to our research, as she has worked with one of the biggest players among Internet companies.

Project: *Operations Optimization, e-commerce*
- Leading e-commerce company in South-East Asia with underperforming operations
- Baseline operations process landscape and governance/ reporting structures to identify improvement potentials
- Developed sustainable operations processes and designed rigorous reporting structures
- Implemented improved processes across South East Asian organization

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Appendix 2 (d)

Expert Interviewee Profile

Startups expert– 4th Interviewee

Marcel Hoeke

Senior Consultant
Zurich

Strategy&

Executive summary
•Cross industry generalist with startup and strategy consulting experience

Relevant expertise
•Virtual reality and augmented reality
•Venture capital
•Joint ventures and alliances

Education
•MA in Strategy & International Management from University of St. Gallen (HSG)

Relevant Information

- Marcel's **experience in startups** provides the CEMS team with very valuable insights from the side of what would normally be the target company. This helps the team to better understand the underlying performance indicators and the main engines that make a target more attractive to investors.
- His experience varies from **projects in ridesharing services to Virtual Reality applications**, hence a very interesting range of business models and potential success factors.

Virtual Reality Application Dev.

Situation
- Startup wanting to tap into the augmented and/or virtual reality market with dedicated applications based on third-party hardware

Actions
- Conducted market analysis and reviewed hardware and software offerings, including different VR glasses providers and different sensors

Results
- Startup develops two dedicated VR apps for consumer and b2b markets

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Appendix 2 (e)

Expert Interviewee Profile

Google expert– 5th Interviewee

Tom Zacharski

Business Analyst
Singapore

Google

Executive summary
- Tom is a professional in the tech industry, expert on the Internet landscape.

Relevant expertise
- Long experience in the Google analytics team in Ireland, Canada & Singapore.
- Past experience as a consultant in PwC

Education
- Master's in International Management - CEMS
- MA, Business Management - Warsaw School of Economics

Relevant Information

- Tom has a **special interest in entrepreneurship** working for **Google and several startups and projects** all over the world. His insights in the industry would consider a detailed overview from the perspective from both a target and an acquirer.
- Having worked and/or studied in eight different countries **he understands the challenges facing global businesses**, the differences between regions and even some underlying similarities between the deals' different regions.
- He is currently employed in **Google's Asia Pacific HQ in Singapore** where he is responsible for **analyzing the company's relationships with media agencies and for building internal tools**. This provides the CEMS team with very valuable insights from within one of the major players in the digital industry worldwide.

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Appendix 3 (a)

Survey (1)

1

Key success factors of Digital Companies

As part of a research project at the University of Cologne, we are currently conducting research on Digital Companies. We understand that you are familiar with the topic, hence we would very much appreciate your input on our analysis.

Definition: Digital Company - A company with an online based business model, with the main asset being its website and/or app.

Project description: Identification of the key success factors of companies with online based business models.

Objective: Development of a guidance/framework to help prospective acquirers assess the potential of a company with an online based business model.

* Required

Your Background

1. **1. What is your professional background?** *
   Mark only one oval.
   - Finance / accounting
   - Marketing
   - Strategy / Management
   - Human resources
   - Logistics
   - IT
2. **2. What is your position and function in your company? (Optional)**
3. **3. Could you please state the name of the company you currently work for? (Optional)**

2

4. **4. In the past 10 years, have you been involved in any takeover or acquisition?** *
   If so, how many?
   Mark only one oval.
   - 10+
   - 6 - 9
   - 3 - 5
   - 1 - 2
   - 0
5. **4.1. If 1 and more, in which industry (-ies)?**
6. **5. In the past 10 years, have you been involved in any projects (e.g. consulting) related to companies with online based business models?** *
   If so, how many?
   Mark only one oval.
   - 10+
   - 6 - 9
   - 3 - 5
   - 1 - 2
   - 0
7. **5.1. If 1 and more, in which industry (-ies)?**
8. **6. In the past 10 years, have you been working in a start-up with an online based business model?** *
   If so, how many years?
   Mark only one oval.
   - 10+
   - 6 - 9
   - 3 - 5
   - 1 - 2
   - 0
9. **6.1 If 1 and more, in which industry (-ies)?**

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Appendix 3 (b)

Survey (2)

3

Key success factors

10. **MARKET ATTRACTIVENESS: In evaluating an online based business model, how relevant are each of the following factors in assessing the market attractiveness?** *
    Where 1 is LEAST IMPORTANT and 7 is VERY IMPORTANT.
    Mark only one oval per row.

	N/A	1 Least Important	2	3	4	5	6	7 Most Important
Market growth								
Internet penetration (Overall internet access and mobile population)								
Digital penetration of the specific segment the company is in (e.g. food delivery, e-commerce)								
Market share in customers (Users) of the company/target								
Market share in revenues of the company/target								
Industry competitiveness								
First mover advantage (edge that a company gains by entering a particular market before any competitors)								
Barriers of entry								
Network effect: winner takes it all								

11. **MA: Are there any other measures that you would consider relevant?** *
    Please Specify

4

12. **DIGITAL COMPETENCE: What importance would you put on each of the following metrics in assessing the performance of an online based business model?** *
    Where 1 is LEAST IMPORTANT and 7 is VERY IMPORTANT.
    Mark only one oval per row.

	N/A	1 Least Important	2	3	4	5	6	7 Most Important
Page/Post Views								
Unique Visitors								
User Growth								
Keyword Ranking								
Click-through Rate								
Non-Branded Traffic								
Shares/Mentions/Likes/+1s/Pins								
Followers								
Comments								
Inbound Links								
Bounce Rate								
Average Pages Per Visit								
Average Time on Site								
Registrations								
Newsletter Subscriptions								
Conversion Rate								

13. **DIGITAL COMPETENCE 2: What importance would you put on each of the following metrics in assessing the performance of an online based business model?** *
    Where 1 is LEAST IMPORTANT and 7 is VERY IMPORTANT.
    Mark only one oval per row.

	N/A	1 Least Important	2	3	4	5	6	7 Most Important
Traffic Source								
Average Reveue per User (ARPU)								
Number of Followers								
Pages per Visit								
Frequency of Visit								
Customer Churn Rate (Lost Followers)								
Net Promoter Score								
Customer Satisfaction								
Marketing Costs								
Cost of Acquisition								
Cost of Retention per Customer								
Channel Accesibility								
Compatibility with different OS								

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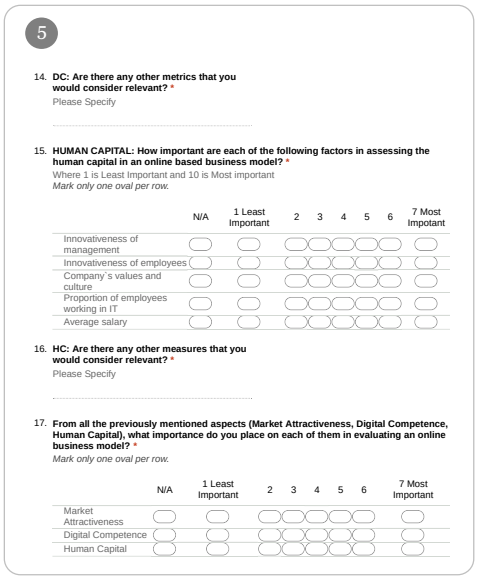
Appendix 3 (c)

Survey (3)



5

14. **DC: Are there any other metrics that you would consider relevant?** *
Please Specify

15. **HUMAN CAPITAL: How important are each of the following factors in assessing the human capital in an online based business model?** *
Where 1 is Least Important and 10 is Most important
Mark only one oval per row.

	N/A	1 Least Important	2	3	4	5	6	7 Most Impotant
Innovativeness of management								
Innovativeness of employees								
Company's values and culture								
Proportion of employees working in IT								
Average salary								

16. **HC: Are there any other measures that you would consider relevant?** *
Please Specify

17. **From all the previously mentioned aspects (Market Attractiveness, Digital Competence, Human Capital), what importance do you place on each of them in evaluating an online business model?** *
Mark only one oval per row.

	N/A	1 Least Important	2	3	4	5	6	7 Most Important
Market Attractiveness								
Digital Competence								
Human Capital								

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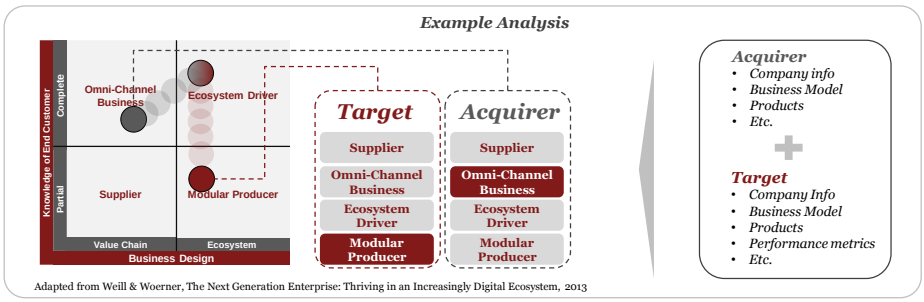
Appendix 4

Hypothesis of the Project

Part 1 – Strategic Fit with the Acquirer Company

Hypothesis Nr. 1 – Companies that acquire targets with online based business models tend to do so in order to create an ecosystem-like environment and increase its knowledge of its end consumer.

- *We will attempt to argue that due to increased digitization companies worldwide are changing or supplementing their business models through acquisitions of targets that operate in the digital space*
- *The targets not only add potential revenue to the whole entity, but also strategically make sense, thereby positioning the acquirer in a position that is better suited for adjusting to digitization.*
- *The framework is adapted from the research of Weill & Woerner (2013) from MIT Center for Information Systems Research*



Adapted from Weill & Woerner, The Next Generation Enterprise: Thriving in an Increasingly Digital Ecosystem, 2013

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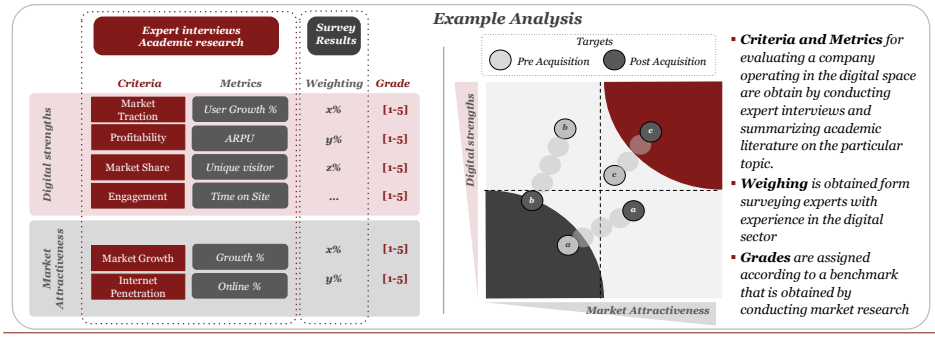
Appendix 5

Hypothesis of the Project

Part 2 – Evaluation of the Online Business Model of the Target

Hypothesis Nr. 2 – The success of the target companies that operate within the digital space can be determined by evaluating the market attractiveness and the digital competence of the business.

- *In this simplified model we argue that the two axis are the main drivers behind growth and profitability of companies operating in the digital space*
- *"Success" is defined by the business's improvement along the "Digital strengths" and "Market attractiveness" axis*
- *"Failure" is seen as the businesses inability to improve its position along the axis or even a decrease from it's previous position*



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Appendix 6

Case Studies: Overview

	Target	Region	Digital Vertical	Bidder	Region	Date	Value ($m)
1	Open Table	USA	Food	Priceline.com	USA	Jun 14	2.600
2	Scout24	Germany	Real Estate	Hellman & Friedman LLC	USA	Nov 13	2.000
3	Kayak	USA	Travel + Cars	Priceline.com	USA	Nov 12	1.800
4	Tumblr	USA	Social Network	Yahoo! Inc.	USA	May 13	1.100
5	Tudou Holdings Ltd	China	Video	Youku Inc	China	Aug 12	990
6	Twitch	USA	Online gaming	Amazon Inc	USA	Aug 14	970
7	Seloger.com	France	Real Estate	Axel Springer SE	Germany	Feb 14	637
8	trivago	Germany	Travel	Expedia Inc	USA	Jan-13	629
9	Apartments.com	USA	Real Estate	CoStar Group Inc	USA	Mar 14	585
10	Wotif	Australia	Travel	Expedia Inc	USA	Jul 14	400
11	Viator Inc	USA	Travel	TripAdvisor LLC	USA	Jul 14	200
12	Stayz Group	Australia	Travel	HomeAway Inc	USA	Dec 13	198
13	Auto.ru	Russia	Cars	Yandex	Russia	Jun 14	175
14	evenbase	UK	Recruiting	Stepstone	Germany	May 14	115
15	Car&Boat Media	France	Cars	Axel Springer SE	Germany	Jun 14	100
16	Allocine	France	Cinema	Fimalac	France	Jul 13	88
17	Streeteasy	USA	Real Estate	Zillow	USA	Aug 13	50
18	Qype	Germany	Social Network	Yelp Inc	USA	Oct 12	50
19	Weg.de	Germany	Travel	ProSiebenSat.1	Germany	Dec 13	41
20	Kununu	Austria	Career Network	Xing AG	Germany	Aug 13	12

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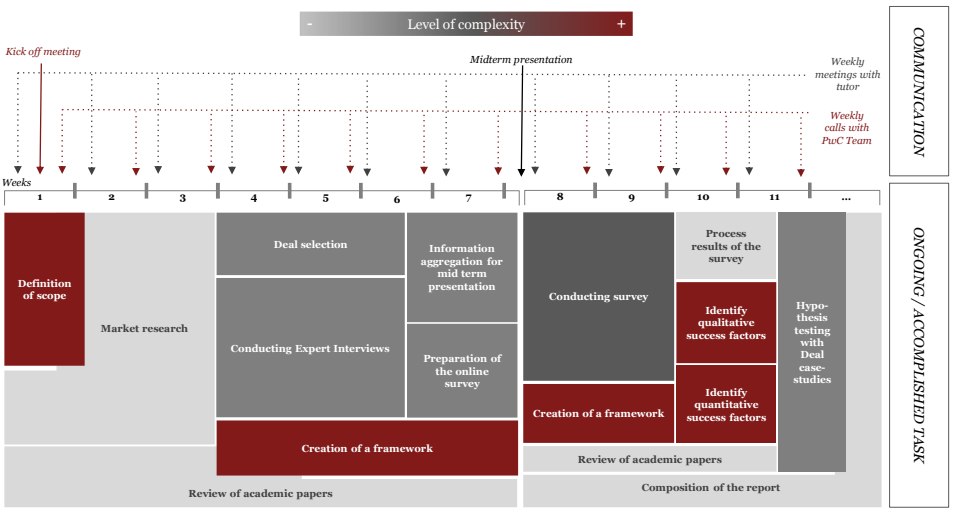
Appendix 7

Work Plan



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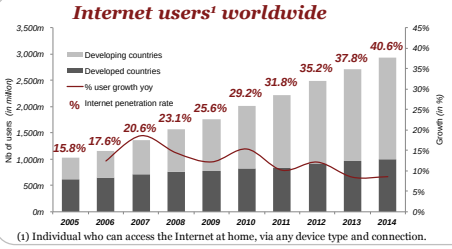
Appendix 8 (a)

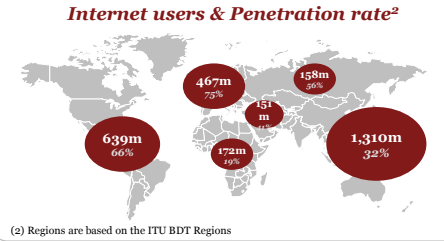
Worldwide Internet market

In 2014, there was 2.9bn Internet users worldwide, with an Internet penetration rate of 40.4%.



(1) Individual who can access the Internet at home, via any device type and connection.

- *The **compound annual growth rate** over the 2005 to 2014 period is **12.6%** (developed: 5.3% and developing: 18.9%).*
- *In **2014**, there was **2.9bn** Internet users **worldwide**, with an **Internet penetration rate of 40.4%**.*
- *The **growth** is mostly driven by **developing countries** where the number of user have **more than tripled** over the period (circa. 1.9bn users in 2014)*
- *The **Internet penetration rate** remains very contrasted between developed and developing countries, with **78% against 32%** in 2014.*



(2) Regions are based on the ITU BDT Regions

- *The **Asia & Pacific region** represents by far the largest region in term of users with more than **1.3bn**.*
- *However **America and Europe** show the highest level of **internet penetration rate.***
- *The lower penetration rates in **developing countries** explains the much **higher growth rates** of users (e.g. 2005-2014 CAGR in Asia & Pacific of 16%).*
- ***Africa** stands out with only **19% of internet penetration**, but the regions benefits from the highest growth rate, with a **2005-2014 CAGR of 29.6%**.*

Source: PWC Global Entertainment and Media Outlook 2015-2019,ITU (http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx)

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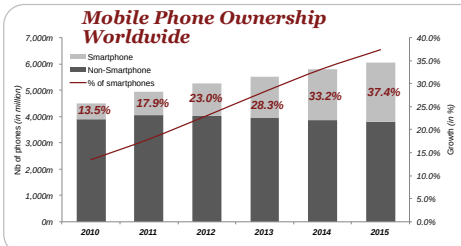
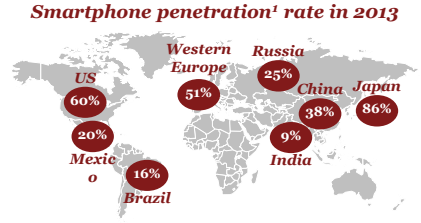
Appendix 8 (b)

Worldwide smartphone market

Smartphone ownership is quickly increasing, while non-smartphones are actually decreasing.



- *The **compound annual growth rate** of the ownership over the 2010 to 2015 period is **30.2% for smartphones** versus **-0.4% for non-smartphones.***
- *In **2014**, the **smartphone** sales accounted for **two thirds of the mobile phone sales** worldwide, with than **1.2bn** sales.*
- *The **share of smartphones** of total phone ownership has **tripled** over the last 5 years.*
- ***Smartphone ownership** is expected **to overtake** non-smartphone ownership by **2018**.*



- *On the **contrary to internet penetration**, the gap between developed and developing countries is not as striking.*
- ***Japan** is clearly ahead, with a rate of **86%**.*
- ***US and Western Europe** have similar penetration rates with room to grow.*
- ***India** entails a huge growth potential, reflected by forecasts for the future years: **25% in 2015** and up to **72% in 2017**.*

(1) Proportion of smartphones over total mobile phone sales volumes

Source: PWC Global Entertainment and Media Outlook 2015-2019, Xerfi global, Gartner and eMarketer

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Appendix 8 (c)

Market players

There are four types of players trying to benefit from digitization and trying to shape the digital landscape.

Traditional Media Companies

- *Strategic acquisitions*
- *Need to become digital because traditional business models are struggling*
- *Try to leverage synergies from their traditional media presence*

***Examples**: Axel Springer, ProSiebenSat.1, RTL, Holtzbrinck*

Big Internet Players

- *Strategic acquisitions*
- *Present in many different Internet segments*
- *Leverage their dominant online presence and internal capabilities to expand into new segments*

***Examples:** Google, Facebook, Rocket Internet*

Digital Landscape

- *Financial acquisitions*
- *Mainly invest in the digital sector because of promising returns instead of a specific strategic focus always have the exit in mind*

***Examples:** 3i, General Atlantic, Founders Fund*

Private Equity / Venture Capital

- *Targets in acquisitions*
- *Generally narrow focus on one segment small, young companies with limited resources*

***Examples:** Gokixx, Soundcloud, Spotify*

Startups

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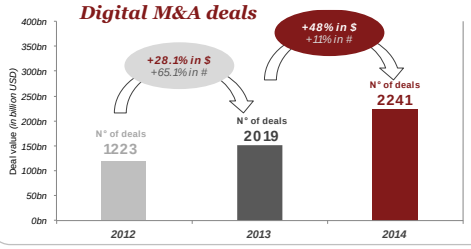
Appendix 8 (d)

Digital M&A review

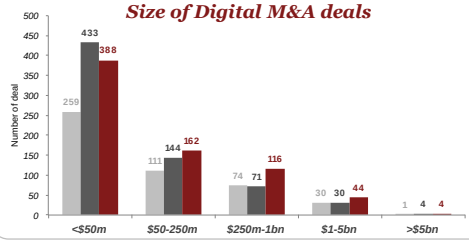
Digital Media, Information & Technology increased 48% in 2014 compared to the full year 2013.

Digital M&A deals



- ***In 2014,*** *M&A activity in digital media, information & technology reached* ***$225bn.***
- *M&A activity in digital media, information & technology increased by* ***48% in 2014*** *compared to the full year 2013.*
- *In terms of* ***number of deals****, the growth rate was about* ***11% from 2013 to 2014****, against more than* ***65% in 2013****.*
- *In fact the* ***average transaction value*** *in digital media, information & technology was a bit less than $75m in 2013, whereas it reached* ***circa $100m in 2014.***

Size of Digital M&A deals



- *There is a* ***clear trend*** *over the period, since deals size increases over the period.*
- *Indeed the* ***number of deals under $50m decreased*** *by more than 10% from 2013 to 2014.*
- ***All other subcategory*** *have a* ***higher*** *or the* ***same*** *number of deals over the period, especially the* ***$1 to 5 billion category*** *which* ***increased by more than 60%*** *from 2013 to 2014.*

Source: Coady Diemar Partners - Digital M&A in Review - Deal Maven - 2013 and 2014

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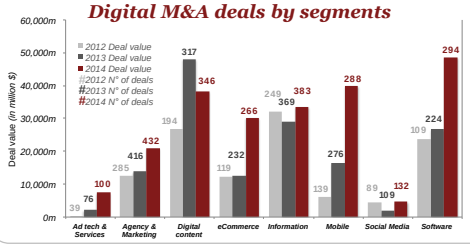
Appendix 8 (e)

Digital M&A review

M&A activity in Ad tech & service and Mobile has grown the fastest over the last two years, with a respective CAGR of circa 380% and 157% .

Digital M&A deals by segments



- ***Ad tech & service*** *with 379.4%,* ***Mobile*** *with 157.3% had by far the* ***highest CAGR over the 2012-2014*** *period.*
- ***eCommerce*** *with 141.7% and* ***Social Media*** *with 138.8% also showed very high growth rates in 2014.*
- *Conversely the total value of M&A transaction in the* ***Digital Content*** *segment* ***decreased by more than 20% in 2014.***
- *In absolute value,* ***Software*** *(21.7%),* ***Mobile*** *(17.8%) and* ***Digital Content*** *(17.1%) accounted for* ***more than half*** *of the* ***M&A activity in 2014****.*

Top 10 Digital M&A deals in 2014

	Acquirer	Target		
1	Facebook, Inc.	WhatsApp Inc.	$19.7bn	Mobile
2	SAP SE	Concur Technologies, Inc.	$7.7bn	Software
3	Shanghai Media & Entertainment Group, Inc.	Shanghai Oriental Pearl (Group) Co.	$5.8bn	Digital Content
4	Scientific Games Corporation	Bally Technologies, Inc.	$5.1bn	Software
5	Oracle Corporation	MICROS Systems, Inc.	$4.6bn	Software
6	CVC Capital Partners; Leonard Green & Partners	Advantage Sales & Marketing LLC	$4.2bn	Marketing Tech & Services
7	Vista Equity Partners	TIBCO Software Inc.	$4.2bn	Software
8	Ontario Teachers' Pension Plan	Riverbed Technology, Inc.	$3.5bn	Software
9	Publicis Groupe SA	Sapient Corp.	$3.4bn	Agency & Analytics
10	FleetCor Technologies, Inc.	Comdata Network	$3.4bn	eCommerce

Source: Coady Diemar Partners - Digital M&A in Review - Deal Maven - 2013 and 2014

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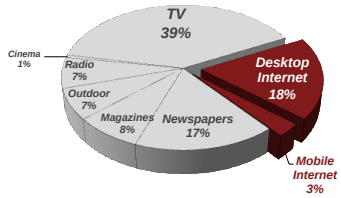
Appendix 8 (f)

Worldwide digital advertisement market

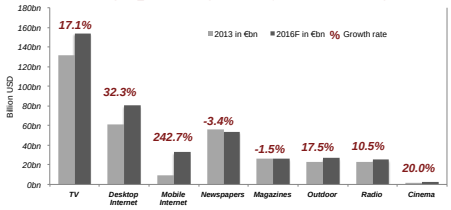
In 2013, the digital media channels represented 21% of the overall advertisement spending.

2013 advertising spending by media format



- ***TV*** *is by far the* ***major media****, concentrating* ***39%*** *of the advertisement spending with a total of 131.3bn euro spent in 2013 worldwide.*
- ***Desktop Internet advertising*** *is already the* ***2nd media*** *with* ***18% of the spending****, slightly higher than newspapers which represent 17% of the spending in 2013.*
- ***Mobile Internet advertisement*** *spending remains a very* ***small share*** *of the global spending in 2013, representing circa* ***3%****, whereas radio, magazines and Outdoor advertising spending all still represent more than 5%.*

Advertising spending 2016 forecasts by media



- *Digital media will benefit from the strongest growth, whereas the advertisement spending in newspapers and magazines should decrease between 2013 and 2016.*
- *The spending in* ***mobile Internet*** *should* ***more than double*** *and represent* ***8.2% of the total spending in 2016*** *(versus 3% in 2013).*
- *If* ***TV should remain the first media*** *in terms of advertisement spending,* ***Internet Desktop*** *will narrow the gap, reaching* ***20% of the total spending in 2016****.*

Source: Xerfi global, Gartner and eMarketer

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Appendix 8 (g)

Regional Trends: The Digital Evolution Index (1/3)

Digital Planet: Readying for the Rise of the e-Consumer (2014), B. Chakravorti, C. Tunnard, Ravi S. Chaturvedi

"The Digital Evolution Index": Combination of a 4 factors

Supply conditions
- *Access Infrastructure*
- *Transaction Infrastructure*
- *Fulfillment Infrastructure*

+

Demand conditions
- *Consumer Profile*
- *Financial Savviness*
- *Internet & Social Media Savviness*

+

Institutional Environment
- *Government Effectiveness*
- *Government & Business Environment*
- *Government & Digital Ecosystem*

+

Innovation and Change
- *Access infrastructure*
- *Transaction infrastructure*
- *Fulfillment Infrastructure*

1 Identification of a hierarchy between regions
➔ *Ranking based on the Index*

2 Identification of region's potential/regional trends
➔ *Change in the Index between 2008 and 2013*

Source: Chakravorti, B., Tunnard, C., & Chaturvedi, R. S. (2014). Digital Planet: Readying for the Rise of the e-Consumer . The Fletcher School.

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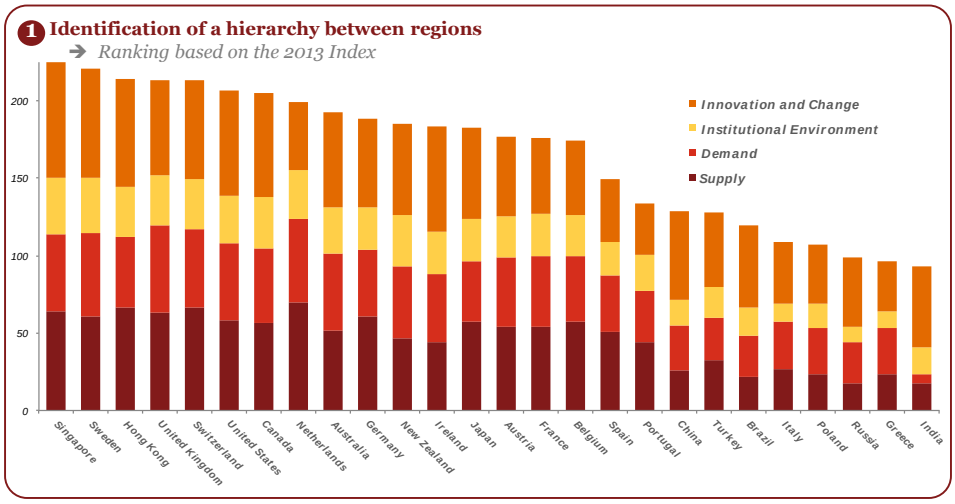
Appendix 8 (h)

Regional Trends: The Digital Evolution Index (2/3)

Digital Planet: Readying for the Rise of the e-Consumer (2014), B. Chakravorti, C. Tunnard, Ravi S. Chaturvedi



Source: Chakravorti, B., Tunnard, C., & Chaturvedi, R. S. (2014). Digital Planet: Readying for the Rise of the e-Consumer . The Fletcher School.

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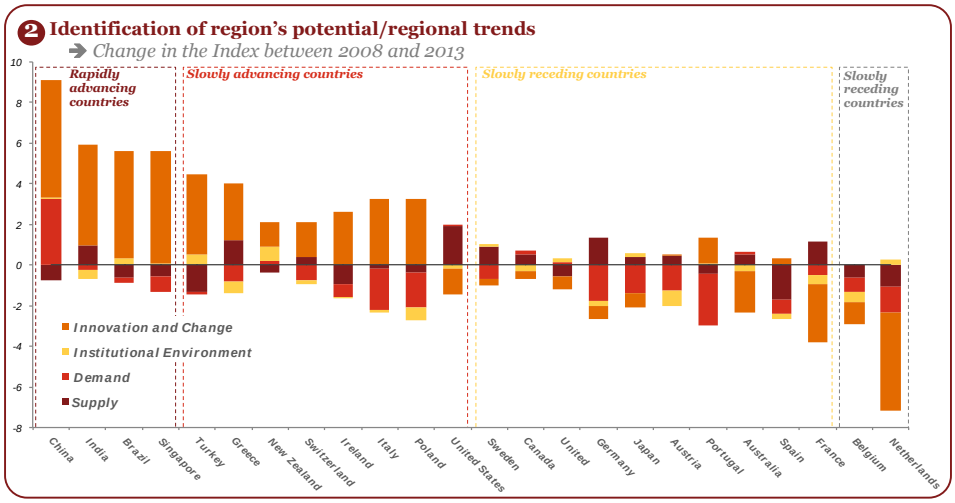
Appendix 8 (i)

Regional Trends: The Digital Evolution Index (3/3)

Digital Planet: Readying for the Rise of the e-Consumer (2014), B. Chakravorti, C. Tunnard, Ravi S. Chaturvedi



Source: Chakravorti, B., Tunnard, C., & Chaturvedi, R. S. (2014). Digital Planet: Readying for the Rise of the e-Consumer . The Fletcher School.

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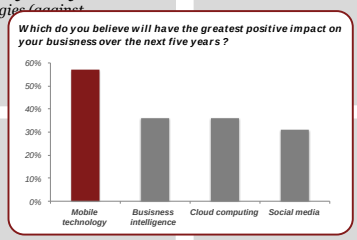
Appendix 8 (j)

The major Digital Trends in the middle term

Digital Megatrends 2015 - The Role of Technology in the New Normal Market (2011), Oxford Economics

Importance of the Mobile Technology

- ***Mobile technology*** *is considered by respondents from "both the developed and emerging world consistently rated it as a* ***game changer****"*
- ***Mobile technology*** *should be the main* ***focus of investment*** *concerning new technologies (Cognizant Social media, cloud computing, Business intelligence, collaborative technology, telepresence technology)*



Cloud computing is reaching maturity

- ***Cloud computing*** *is changing dramatically decreasing cost of operating IT-systems. The* ***flexibility*** *offered by cloud solutions has change the service offering accessible for* ***small players****.*
- *According to a survey conducted by the Oxford Economics, more than 50% of business executive asked think "****application of 'cloud'*** *computing improves our* ***competitive position****".*

- *The use and analysis of the data companies gather is becoming an overwhelming challenge.*
- ***Business intelligence*** *is a major asset to better* ***understand*** *your customers and your business.*
- ***Decision-making*** *will be profoundly* ***disrupted*** *based on the capacity to to* ***retrieve, synthesize and analyze live data****.*

Tailored Business-Intelligence

- *The impact of* ***social media*** *differs from an industry to another. The* ***technology and the consumer goods industries*** *underwent the fastest disruptions.*
- *Conversely, the manufacturing and financial sectors were not impacted to the same extent.*
- ***Social media*** *is changing the* ***relation between businesses and customers****.*

Social Media, a communication standard

Source: Oxford Economics. (2011). Digital Megatrends 2015 - The Role of Technology in the New Normal Market. Oxford.

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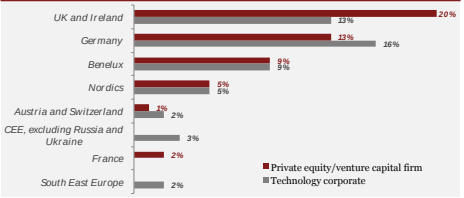
Appendix 8 (k)

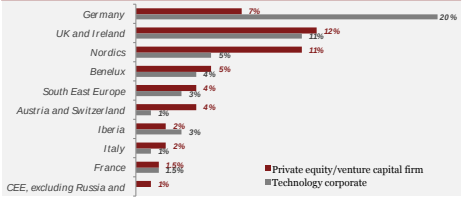
The major Digital M&A Trends in Europe

Ahead of the curve: the growth of European technology M&A (2014), Pinsent Masons and Mergermarket Group.

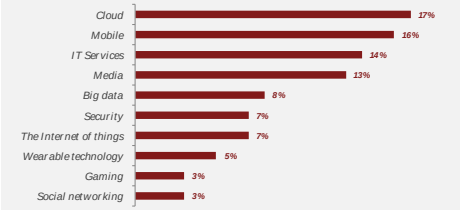
1 *Most active regions for Digital Targets[1]*



2 *Most active regions for Digital Bidders[2]*



3 Most active sectors in term of M&A



The following graphs are the result of a survey conducted by Pinsent Masons and Mergermarket Group in 2014.

1. *In terms of target, the UK, Ireland and Germany are expected to be the most dynamic regions. Conversely France is clearly lagging behind*
2. *Again in terms of bidder UK, Ireland and Germany are ahead, Germany behind particularly active.*
3. *In line with the trends identified in the previous slide, Cloud, and Mobile are expected to drive M&A activity.*

(1) Based on the response to the following question: "Of the following European countries/regions, which do you think will be the most active region in terms of technology targets?"
(2) Based on the response to the following question: "And which do you think will be the most active in terms of technology bidders?"
Source: Pinsent Masons. (2014). Ahead of the curve: the growth of European technology M&A. Mergermarket Group.

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Appendix 9 (a)

Determinants and evaluation of M&A success

Achieving success in M&A requires the simultaneous accomplishment in six factors

1 *Strategic vision and fit:*
- *Rational needs to be centered on the creation of a long-term competitive advantage*
- *Increase scale, geo-graphic scope, know-how, and cross-industry extensions*
- *Management to analyse the strategic visions and compatibility*

2 *Deal structure:*
- *Two crucial factors:*
  - ***Price premium***
  - ***Financing type***
- *Price paid and financing type must be appropriate and beneficial*
- *Stock over- and under- valuation must be considered*

3 *Due Diligence:*
- *Management needs to ensure that strategic vision can successfully be implemented and companies integrated*
- *Includes:*
  - *Formal financial review*
  - *Organizational fit*
  - *Cultural fit*
  - *Human capital fit*

4 *Pre – M&A planning:*
- *Period leading to M&A announcement to formulate integration process and make key decisions*
- *Creation of clarity in roles and responsibilities*
- *Decisions need to be coordinated, communicated and completed rapidly*

5 *Post- M&A integration:*
- *Clear integration process and definition of new organizational structure*
- *Planning and execution in terms of speed and implementation is key*
- *Retention of crucial human capital and customer management are crucial*

6 *External factors:*
- *Distinguish between external factors that damage the long-term M&A value and the short-term perceptions*
- *Anticipation and prevention of external factors that adversely affect the success of a M&A in the long-term*

Source: Epstein (2015).

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Appendix 9 (b)

Critical success factors through the M&A process

A pluralistic and holistic explanatory framework that reflects the multidisciplinary nature of M&A is needed to evaluate M&A success factors

Premerger Critical Success Factors

1. Choice and evaluation on the strategic partner
2. Pay the right price
3. Size mismatches and organisation
4. Overall strategy and accumulated experience on M&A
5. Courtship
6. Communication before the merger
7. Future compensation policy

M&A Success

Postmerger Critical Success Factors

1. Integration strategy
2. Post acquisition leadership
3. Speed of implementation
4. Postmerger integration team and disregard of day-to-day business activity
5. Communication during implementation
6. Managing corporate and national cultural differences

As the literature has already extensively discussed the **post-M&A success factors**, this study focuses only on premerger success indicators.

Source: Gomes et al (2013).

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Appendix 9 (c)

Premerger Critical Success Factors

The literature identifies success factors that are attributable to the premerger phase

Premerger Critical Success Factors (I/II)

1. Choice and evaluation on the strategic partner:
- Choose a strategic partner in terms of strength and weaknesses, future investment requirements, quality of the target company management team, and implementation barriers (cultural fit and HR implications)
- Assessment through due diligence
- Strategical (resource similarity and complementarity, combined relational capabilities and partner-specific knowledge) and organisational (cultural differences) fit are crucial for the success

2. Pay the right price:
- Many studies indicate that paying a price that is too high is a major cause for failure
- Evaluation is difficult for cross-border acquisitions due to a high information asymmetry
- European acquirers pay a higher premium (43%) than US companies (14%) in technology-based merger activity involving US firms
- Friendly deals using stock often perform better than those using cash; for hostile acquisitions it is the other way around

3. Size mismatches and organisation:
- Relative organisational size is important for choosing the right partner (otherwise: underperformance)
- Factor is questionable due to contrary findings

Source: Gomes et al (2013).

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Appendix 9 (d)

Premerger Critical Success Factors

The literature identifies success factors that are attributable to the premerger phase

Premerger Critical Success Factors (II/II)

4. Overall strategy and accumulated experience:
- Better performance in M&A if company has an overall strategy and experience of M&A
- Consistent strategy for growth and learning from continuous and accumulated experience of acquisition activity are highly valuable (acquisition capabilities, familiarity, standardized routines and skills)
- Indirect learning from M&A of peers and external consultants

5. Courtship period:
- Time period during which companies can get to know each other before deciding on a potential M&A (joint-venture, active shareholder with board representation, etc.)
- Improve mutual knowledge and understanding, reduce information asymmetry and build trust and confidence
- Without courtship, the evaluation of the target is difficult and can lead to difficulties post M&A

6. Communication before the M&A:
- Information vacuum leads to uncertainty and the creation of rumors which can have harmful effects due to loss of confidence or fear (in stakeholders)
- Expectation management and fair and accurate communication are crucial for M&A success

7. Future compensation policy:
- Compensation structures (incentives) can create a clash between individual motivations and organisational objectives and thus need to foster individual attitudes and motivation levels

Source: Gomes et al (2013).

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Appendix 9 (e)

Success and Failure in Technology Acquisitions

The acquirer has a clear motivation for a M&A and knows how to find the most suitable target

In order to conduct a successful technology M&A transaction, research finds that the most important aspects are the acquirer's motivation and performance which can be seen as an equivalent to the strategic fit

Acquirer motivation	Add strategically valuable resources	Rapidly obtain products and technologies
		Harness innovative power of smaller, younger firms
		Access tacit, socially complex knowledge
	Enhance market power	Expand market footprint to new geographic regions or customer groups
		Eliminate current and potential rivals
	Achieve strategic renewal (disruptive change)	Provide opportunities for resource reconfiguration and recombination of technologies
		Unfreeze "mental maps" and enable adaptation
Acquirer performance	Picking the right target	Balance similar and complementary resources
		Avoid targets with larger knowledge base relative to acquirer

Source: Graebner et al (2010).

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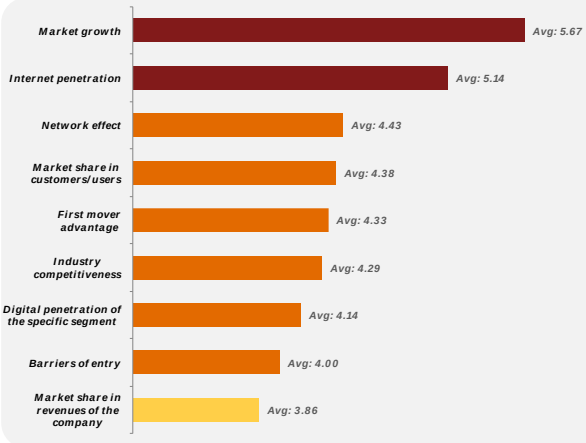
Appendix 10 (a)

Survey Quantitative Results

Respondents considered market growth and Internet penetration rate the most important metrics for the assessment of market attractiveness.

In evaluating an online based business model, how relevant are each of the following factors in assessing the market attractiveness?



Market growth and Internet penetration rate
Obviously these two metrics play a critical role in assessing the market attractiveness. Market growth will directly drive the company's growth/potential and Internet penetration rate is a indicator of market infrastructure and development.

Network effect and first mover advantage
These two qualitative indicators were considered important, and are very relevant in the digital industry.

Market share in revenue
Very interestingly respondents have deemed market share in revenue not as crucial. Market share in number of customers/users is considered more relevant.

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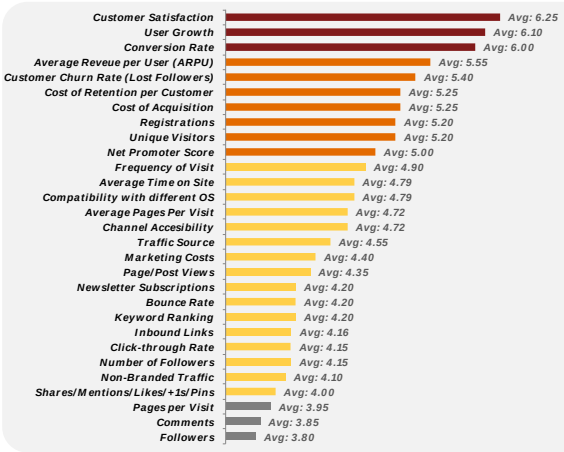
Appendix 10 (b)

Survey Quantitative Results

Respondents considered customer satisfaction, user growth and conversion rate the most important metrics for the assessment of the performance of an online based business model.

What importance would you put on each of the following metrics in assessing the performance of an online based business model?



Non-financial metrics
In line with the market attractiveness, respondents attached more importance to non-financial metrics, such as customer satisfaction or user growth, before conversion rate or ARPU.

Unique visitor: a too simplistic metric
Unique visitor is only ranked 9th, whereas more complex metrics based on unique visitors are deemed more relevant: user growth, conversion rate, ARPU, Churn rate.

Page views: a secondary metric
Page/post views, bounce rate, click-through rate, page per visit have very poor rankings compared to metrics such as average time on site. This may reflect the core importance of user related metrics.

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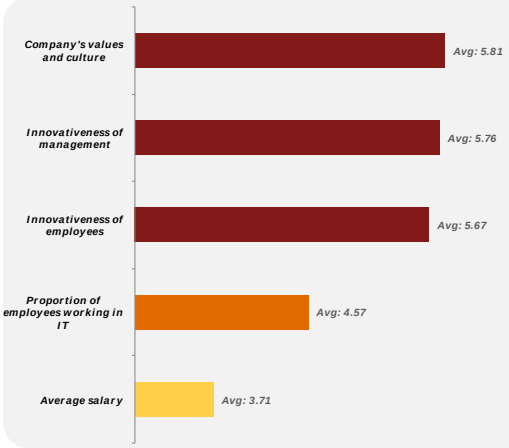
Appendix 10 (c)

Survey Quantitative Results

Respondents considered values of a company and its innovativeness the most important combination of factors.

How important are each of the following factors in assessing the human capital in an online based business model?



Importance of culture
The respondents have clearly considered culture and values as a core factor of success. More specifically achieving a innovative culture is considered to be critical to succeed in the digital sector.

IT related competencies
In line with the outcomes of the interviews, the core IT competencies is not the most relevant success factor, but rather the human capital across all departments of the company. Hiring competent IT employee is relatively easy in the middle term.

Financial factors as secondary
Again, financial incentives, such as average salary are ranked far below. It reflects a different focus in the case of the digital sector based on rather non financial indicators (see qualitative results of the survey).

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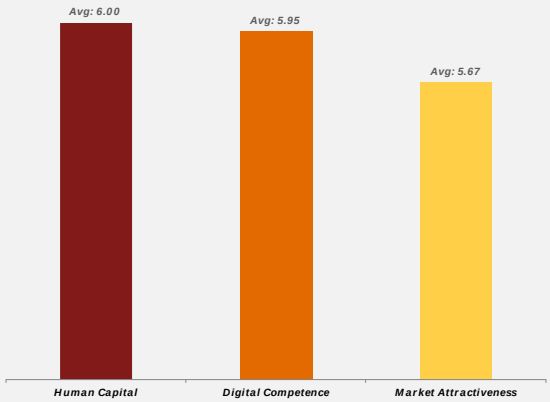
Appendix 10 (d)

Survey Quantitative Results

Respondents considered Human capital the most important combination of factors, followed by digital competence.

From all the previously mentioned aspects (Market Attractiveness, Digital Competence, Human Capital), what importance do you place on each of them in evaluating an online business model?



Internal competencies are critical
The respondents highlighted the importance of internal factors, before external factors. Human capital and digital competencies are considered more important than the market attractiveness.

Human capital, the key to success
As underlined further in the qualitative results of the survey, the human capital factors are considered the critical success factors. However, they remain very difficult to measure, especially using public information.

Digital competencies
If the importance of digital performance indicator is very contrasted from one metric to another, the overall digital competence is obviously critical. However as reviewed in the previous slides, financial based indicators are secondary.

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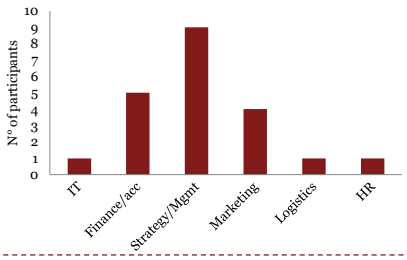
Appendix 10 (e)

Survey Qualitative Results

Participants with great digital experience gave additional insights that can help in further investigations.



22 participants from the Internet/New Media, IT and Consultancy sector:

- Average number of takeover or acquisitions being involved: **1.7**
- Average number of projects (consulting) related to online based business models: **3.4**
- Average number of start-ups with an online based business model having worked for: **2.3**

Market attractiveness: 15 answers

- > 50% say that **scalability** plays a major role
- 27% claim that the **team** operating in the market is most important
- 13% say that the potential **profitability/ margin** in the marget is key

"Usually it is the team that matters, even unattractive markets can be changed."

Digital competence: 9 answers

- 33% say that the **Customer Lifetime Value** is most relevant
- 44% claim that **generalisation** of this aspect is not possibloe in the digital sphere

"The weight of each metric depends a lot on the industry/product and on the company itself"

Human capital: 13 answers

- 38% say that the management's experience and background is the key
- 15% claim that the innovativeness of the team is most relevant
- 23% think that the corporate culture (vision, fit) is relevant because ist strives the motivation

"It all comes down to having a team of hard working, motivated and responsible professionals "

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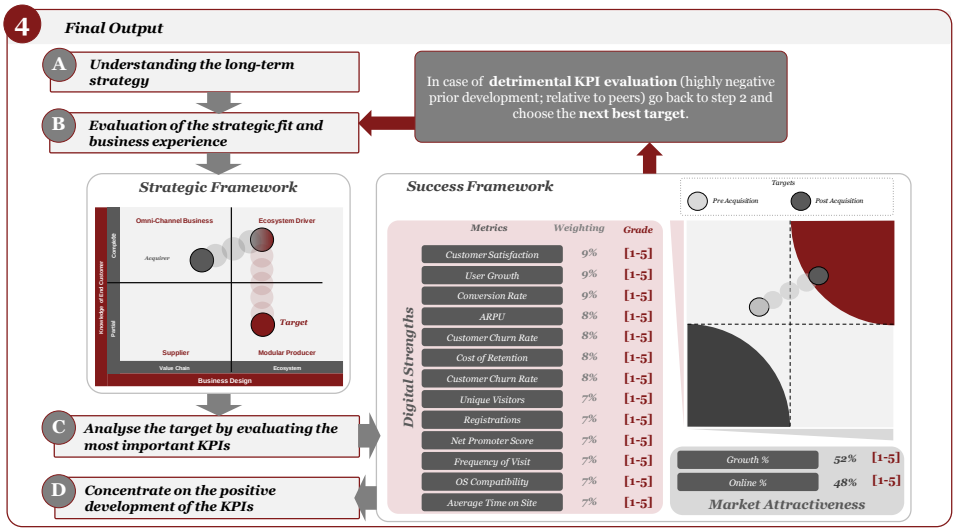
Appendix 11

Final Recommendation– Decision Roadmap

In order to increase the probability of success, decision-makers planning on acquiring digital companies should strictly follow the iterative guidance below.



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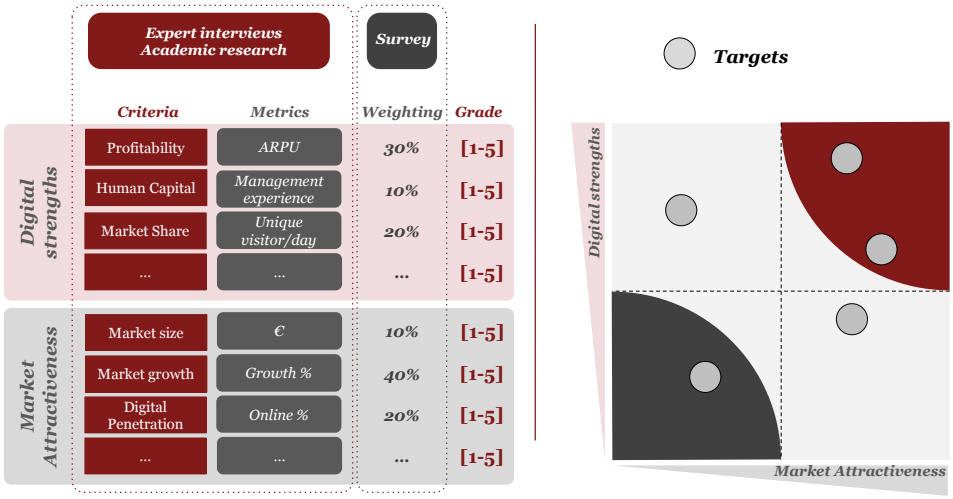
Appendix 12

KPI Analysis Framework



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Appendix 13 (a)

Digitization: Threat or Opportunity? [1]

Increasing digitization globally can present opportunities for companies through leveraging a strong customer relationship and increasing cross-selling opportunities.

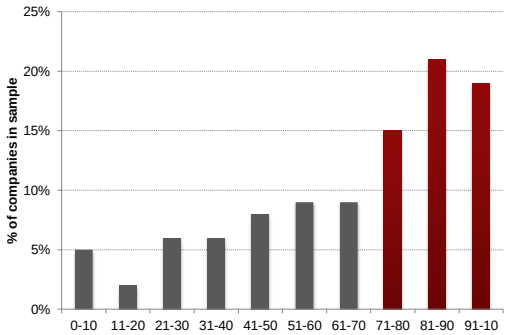
Impact of Digitization on an Enterprise

Weill & Woerner (2014) asked several company executives to evaluate their business on the following aspects

To what extent is the product or service (Score: 0-7):*

1. *Electronically specifiable and searchable?*
2. *Ordered digitally?*
3. *Delivered digitally?*
4. *Already or able to be augmented with valuable information?*
5. *Threatened by enterprises in other industries that have relationships with your customers and that can offer competing products or services, potentially disrupting your business?*
6. *At risk of being replaced with an alternative digital offering (e.g. books, classroom education, medical diagnosis, 3D printing)?*
7. *Going to be delivered digitally in five years?*

**Add and double (out of approx. 100)*



Source: MIT CISR (N=105, mostly from large companies)

About 55% of respondents said their companies had a score of 70% or above(the "red zone"). In the red zone , an enterprise faces significant impact from digitization.

[1] Weill & Woerner, Digitization: Threat or Opportunity?, 2014

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Appendix 13 (b)

The Next Generation Enterprise[1] *(1/3)*

The current business landscape is changing; businesses have the opportunity to move from value chains to ecosystems.

What is a Business Ecosystem?[1]

A business ecosystem can be thought of as a coordinated network of enterprises, devices ,and consumers that creates value. The activities of a business ecosystem include transactions and other exchanges enabled by digital connections.

Ecosystems typically include two types of players:

- ***Drivers*** *– set the rules*
- ***Participants*** *- adopt and help improve those rules*

The rules are supported by collaboration practices and contracts, which specify participants, process for setting prices, IP and data ownership, payments, security, etc.

Including a greater number of participants creates a vibrant ecosystem that can ***increase innovation*** *and* ***consumer choice*** *through* ***increased diversity****, allowing participants to draw from a broader range of experiences.*

It is argued that companies that operate in an ecosystem-type environment (e.g., more networked, with more information and feedback loops) have been outperforming more traditionally managed firms which generally model themselves on mechanical systems (e.g., linear value chains).

Firms in an ecosystem show market returns of ***3%*** *on average above the FTSE World Index, the MSCI World Index and the S&P Global 100 in over the 1995 - 2014.*[2]

Options for the Next Generation Enterprise[1]

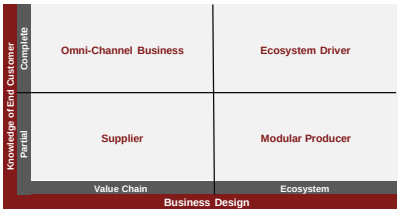
Most companies today don't operate in an ecosystem, but rather control or participate in a more linear value chain as described by Michael Porter (1980).

However, this is changing, as increased digitalization of business is enabling consumers and companies to seek out the benefits of ecosystems.

Organizational leaders have to make two choices, creating four distinct business models with associated capabilities and relationships.

- *The* ***horizontal axis*** *is the business design, with the value chain and the ecosystem as the two clearest options on a continuum.*
- *The* ***vertical axis*** *is the depth of knowledge of your end consumer.*

All four business models are viable today, each with distinct opportunities and challenges.



[1] Weill & Woerner, The Next Generation Enterprise: Thriving in an Increasingly Digital Ecosystem, 2013
[2] Bragdon, 2015

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Appendix 13 (c)

The Next Generation Enterprise[1] *(2/3)*

Options for the next generation enterprise.

	Description	Characteristics	Company Examples
Supplier	*Suppliers have at best a partial knowledge of their end consumer and typically operate in the value chain of another, more powerful company* *With increasing digitization, suppliers could lose power and be forced to continually reduce prices, perhaps resulting in industry consolidation.*	*Companies that sell insurance via independent agents, electronic goods like TVs via retailers, mutual funds via brokers are generally suppliers*	***P&G -** a prime supplier in many other firms' value chains - feels this potential loss of power.* *Action taken: A campaign to learn more about and connect directly with its over 4 B consumers using branding, social media, and data-based approaches*
Omni-Channel Business	*Omni-channel businesses provide customers access to their products across multiple channels, including physical and digital channels, giving customers greater choice and experience.*	*Utilise big data analytics, social media, mobile apps, and measures of customer experience like Net Promoter Score (NPS) as means for increasing their understanding of the end consumer*	***Tesco** & **Walmart** control an integrated value chain and claim to "own" the customer relationship. The challenge for these companies is to increase knowledge of the end consumer and his/ her goals, and thereby reducing customer churn.*
Ecosystem Driver	*Ecosystem drivers provide and open platform with interfaces that allow partners to integrate into the platform and increase value creation . They ensure a great customer experience and offer many plug and play third-party products and services.*	*Extracts rents from users of their ecosystem – both consumer and plug and play participants. Relies on brand strength to build reputation and usage.*	***Amazon** & **eBay**. Offer choice and information in the purchase decision, enables faster innovation. Creates consumer value via a market with different vendors offering similar products. Sales data and customer reviews provides useful information to improve products and services..*
Modular Producer	*Modular producers provide plug and play products or services that can adapt to any number of ecosystems*	*Company survival requires it to be one of the best producers in the narrow definition of their modular activity (e.g. ,payments). In digital ecosystems it's usually easy to switch from one modular producer to another*	***Pay Pal** is a typical modular producer. To stay competitive products and services require constant innovation to ensure they're among the best options available.*

[1] Weill & Woerner, The Next Generation Enterprise: Thriving in an Increasingly Digital Ecosystem, 2013

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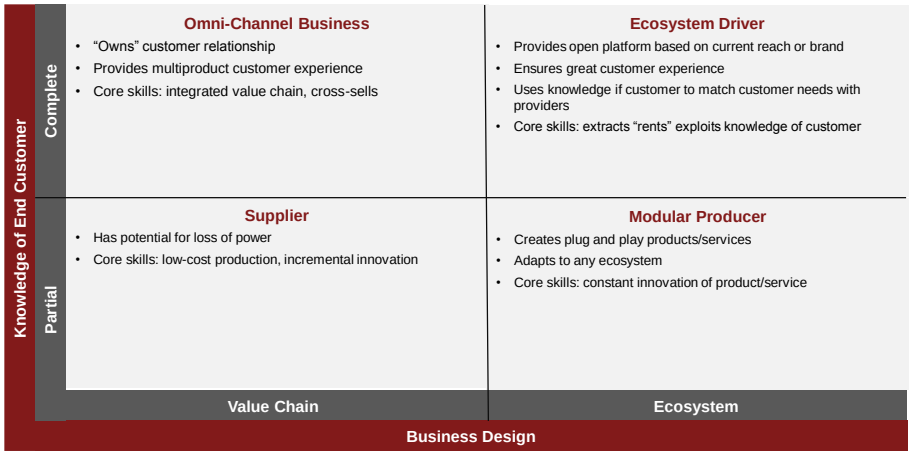
Appendix 13 (d)

The Next Generation Enterprise[1] *(3/3)*

The greater the impact of digitization on a company's business, the more urgent the case for buying strategic options for the future.



[1] Weill & Woerner, The Next Generation Enterprise: Thriving in an Increasingly Digital Ecosystem, 2013

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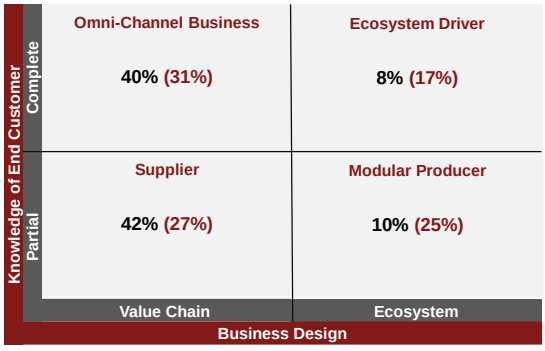
Appendix 13 (e)

Expectations on the Business Model Options

Senior executives of companies expect their businesses to shift towards more ecosystem-like enterprise in the next 5 years.

Percent of Companies by Their Dominant Business Model



- Today
- (in 5 years)

Source: MIT CISR – Gartner Ecosystem Survey, N=93

According to a survey conducted by MIT CISR companies were asked to identify their dominant business model as described before.

- ***40% of the companies identified their dominant model as Omni-Channel***
- ***8% as Ecosystem Driver***
- ***42% as Supplier***
- ***10% as Modular Producer***

When asked how this would change in 5 years, the answers looked radically different. Senior executives expect their companies to move up and to the right on the 2x2.

[1] Weill & Woerner, Digitization: Threat or Opportunity?, 2014

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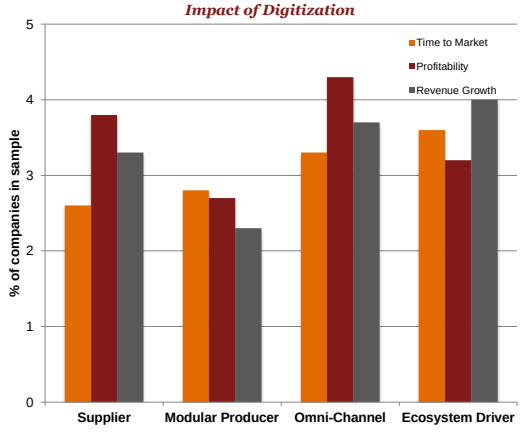
Appendix 13 (f)

Relative Performance of Business Models

Company executives were asked to estimate their relative performance according to the business model they possess.

Impact of Digitization



Score greater than 3 indicates self-reported advantage over competitors

Source: MIT CISR – Gartner Ecosystem Survey, N=93, responses are on a 1 (Low) to 5 (High) scale.

Time to Market

According to the executive responses Ecosystem Drivers typically perform well with regards to product or service time to market. The worst performer in this criteria is a typical Supplier.

Profitability

In terms of profitability Omni-Channels are a clear leader closely followed by Suppliers.

Revenue Growth

Ecosystem Drivers typically have the highest revenue growth. Omni-Channels are a close follower. Weill & Woerner argue that majority of companies first collect and consolidate insights about their customers thereby moving up to become an Omni-Channel and then move along the Business Design axis towards an Ecosystem.

[1] Weill & Woerner, Digitization: Threat or Opportunity?, 2014

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Appendix 14

CEMS Team

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Experience with several start-ups

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