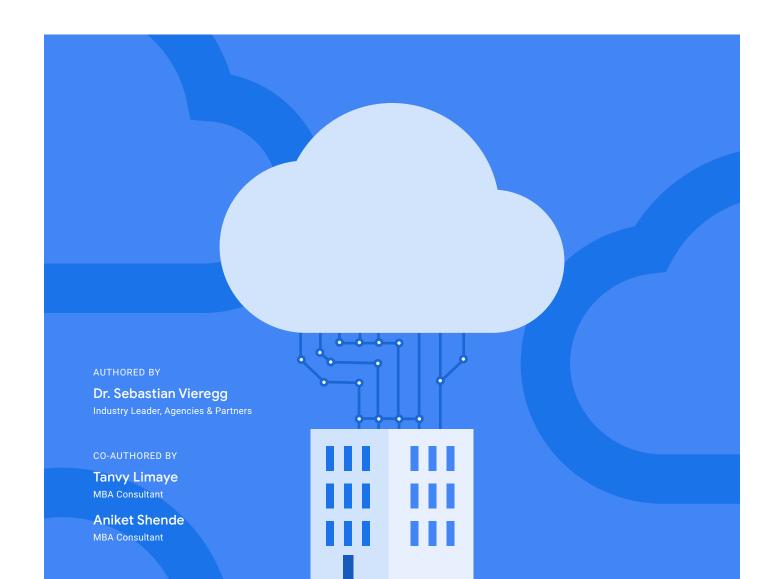




CLOUD FOR AGENCIES

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The Digital Transformation of Marketing and the Agency Ecosystem



Prologue - "Marketing: From Art to Science" ■

Long gone are the days of Don Draper, where a brilliant creative mind would determine the success or failure of a marketing campaign. In the past ten years we have seen a revolution in the world of marketing, which by far surpasses the advent of television seventy years ago.

With the rise of the internet the first big change was the increase in the number of channels where a marketing message could be communicated. The next much more impactful step was the discovery that the digital world made it possible to target customers not only more precisely but also based on completely new criteria such as propensity to buy or interest in a product rather than demographic descriptions. As the digital advertising ecosystem matured together with the rise of cloud computing, not only targeting became more and more sophisticated but also the ability to measure the impact of all the different interactions a consumer has with a brand. This enabled marketeers after decades of "not knowing which 50% of the marketing spend is wasted" to finally optimize the returns on their marketing investments. Now we are slowly entering a phase were even the creative part of a marketing campaign will be more and more automated, with specific messages and design for specific customers.

It will come as no surprise that in this new world the marketing ecosystem is changing fundamentally: technology, data and analytics have taken the center stage and both existing and new players are trying to find their new place under the sun. Advertisers are considering whether they should inhouse their marketing activities,

in order to keep full ownership of their data. Consultancies become "Cagencies" (consulting agencies) which not only advise on but also execute marketing campaigns. Technology players offer cloud solutions which enable cheap and scalable access to data storage and, more importantly, tools for easy data access, -analysis and campaigns. A multitude of Marktech start ups are offering innovative solutions in many dimensions.

Media agencies are in the middle of this storm and are facing a double challenge: not only will they have to upgrade their own skills significantly, they will also have to find their new place in this fast changing ecosystem. More than ever they will have to figure out where their unique key skills lay and how they will have to partner up with other players in order to offer the best possible solutions to their customers.

This paper takes a look at the immediate challenges which the media agencies face and the skills and partnerships they need to build in the short term to capture the opportunities the new marketing age offers. How will the marketing ecosystem evolve in the end? The jury is still out. However one thing is certain: those who do not adapt fast to the new world will join Don Draper sooner than they think.



Prof. Annet ArisSenior Affiliate Professor of Strategy

1. Context



Digital technology has caused a seismic shift for media agencies worldwide. For decades they were able to hold an incumbent position in the advertising industry, based not only on their expertise in media buying and planning, but also on their purchasing power bundled in large networks of operating companies.

With new platforms and technologies, such as programmatic advertising and cloud computing, gaining an increasingly strong foothold in the market, agencies are in a process of overhauling their business models, operational processes and approach to technology. As new players, e.g. tech and strategy consultancies are entering the market, the success of agencies will be defined by their

ability to change and adapt in these areas. They will need to lay the foundation of a cohesive tech infrastructure set up, that will strengthen agencies' position in the industry, their narratives, processes, data uses and outputs.

Agencies will have to increase the focus on a new set of Digital Capabilities and Leadership Skills.¹



Fig.1 — Capabilities of Digital Masters based on: "Leading Digital" by CapGemini Consulting

Cloud computing is a big shift from the traditional way businesses think about IT resources. Simply put, it enables the delivery of computing services – servers, storage, databases, networking, software, analytics, intelligence and more - over the Internet ("the cloud") to offer faster innovation, flexible resources, and economies of scale. Companies typically pay only for cloud services they use, helping to lower operating costs, run infrastructure more efficiently, and scale as business needs change.²

Potential benefits of cloud computing include the elimination of the capital expense of buying hardware and software and setting up and running on-site data centers. With this technology, the need for dedicated IT experts, managing the infrastructure is diminished. Most cloud computing services are provided self service and on demand, so even vast amounts of computing resources can be provisioned in minutes, typically with just a few mouse clicks, giving businesses a lot of flexibility. While on-site data centers typically require a lot of maintenance, i.e. hardware set-up, software patching, and other time-consuming IT management chores, Cloud computing removes the need for many of these tasks.³

The skills, experience, and resources to manage all this data will become scarcer and more specialized, requiring a new, flexible, and scalable IT and data warehousing infrastructure. To this end, the number of servers (virtual and physical) worldwide will grow by a factor of 10 and the amount of information managed directly by enterprise data centers will grow by a factor of 14. Meanwhile, the number of IT professionals in the world will grow by less than a factor of 1.5. In addition, while spending on public and private cloud computing accounts for less than 5% of total IT spending today, IDC estimates that by 2020, nearly 40% of the information in the digital universe will be "touched" by cloud computing — meaning that a byte will be stored or processed in a cloud. Perhaps as much as 15% will be maintained in a cloud.

This paper will zoom in on a very specific business function that will be affected by this new technology and focus on a distinct industry: The effect of Cloud on Marketing and the implications for agencies in this space.

2. Ambition, goal, and methodology of this paper



While many advertisers have begun to engage with Cloud providers to develop new tech around Marketing Analytics, there has been little attention to the implications for the German agency and partner ecosystem.

This paper aims at the development of a perspective how cloud computing and specifically Cloud for Marketing with Google (GCP) affects agencies in Germany along their value chain. The INSEAD Business School and the Google agency team (see participants below) conducted an in-depth literature-based research on the topic of cloud computing for Marketing and interviewed experts in the field, e.g. senior executives from Google's Agencies and Partners sectors, as well as Google's Cloud for Marketing Specialist.

To discuss the topic of cloud computing with agencies specifically, to identify common themes on risks and benefits of the technology, and discuss the research-related questions below (see 2.2.), the team held interviews with agency CEOs, CDOs, Digital Directors, and data experts from OMG, Annalect, Trakken, Artefact, Essence, eProfessional, and Syzygy. It also received written feedback from GroupM.The goal is furthermore to test the following hypotheses:



2.1 Hypotheses

- Cloud computing in the context of MarketingTech will have a profound impact on the advertising ecosystem, and create new competition for existing players.
- Cloud Computing will have an impact on the value chain of traditional agencies and allow for more differentiation and new business opportunities.
- Agencies that cannot keep up with the momentum will risk losing market share.
- Agencies need to start building structures, skill levels and commercials around the new opportunities that arise from Cloud Computing.

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2.2 Research-related questions for this paper

- How will the value chain of agencies be affected by cloud computing and specifically Cloud for Marketing?
- What are the benefits and the risks for agencies, as cloud computing is gaining momentum?
- How can agencies use the new technology to be more efficient?
- How can cloud computing create unique selling points (USPs), new business models and differentiating products in the marketplace?
- Which skills, processes and tools and workflow will need to be introduced, and how does this affect the existing agency workforce?
- What are use cases (short vs. long term) that agencies should focus on / develop to use cloud computing to its fullest potential?
- · What is the vision of agency CEOs in this context?
- How can agencies get started with cloud computing, what data and data structure is needed to build a successful business around cloud computing?

3. Cloud for Marketing



Internet users have more touchpoints with business and advertisers than ever before. They visit websites, use apps, visit physical stores, call customer service lines, join loyalty programs, watch YouTube channels, and Facebook pages, subscribe to email lists, and more.

They also see ads: search, social, video, TV, radio, print, and out-of-home. These interactions with brands and products produce a wealth of information about new and existing customers and what they expect from businesses. Data and information about these interactions with advertisers are collected in systems, which are not designed to be connected - or the connection is so difficult, manual, slow and expensive that opportunities that arise from smart marketing analytics is not leveraged to its fullest potential.

As Edelman and Banfi from McKinsey & Company put it:

"Without the ability to understand their customers, companies will find it difficult to be where their customers are. Part of the reason that companies are having trouble understanding their customers is that customer behavior itself is complex. [...] If there were 10 Commandments for marketing, #1 would be: Know thy customer. While it's one of the most fundamental principles in business, companies are still having trouble adhering to it."

In the context of Marketing, Cloud Technology allows for specific applications, use cases and opportunities for data activation. From a data analysis perspective, we differentiate between structured and unstructured data. Unstructured data (or unstructured information) is information that either does not have a pre-defined data model or is not organized in a pre-defined manner. Unstructured data consists of files, documentation, email, engineering drawings, project plans, product manuals, Web pages, etc., and is created on a variety of systems using a variety of formats (paper, .doc, .ppt, .pdf, etc.). Unfortunately, unstructured data is not stored with any type of metadata structure, and consequently there is no standard facility to aid in searches, queries or analysis. Not surprisingly, unstructured data comprises the vast majority of data found in an organization, some estimates run as high as 80%.6 Quantifying the lost opportunities that result from data silos and fragmentation is a difficult task. Yet there is evidence that it may be massive. Up to 78 per cent of organisations have little or no understanding of what is going on across their unstructured data and file shares.7

As marketers, and when you're dealing with media data day in, day out, it's only natural that unstructured data is the first data type that comes to mind. However there are plenty of other sources that can be labeled as structured data and that can power decision-making and improve customer centricity. This includes:

- Media data & user-level data: Digital advertising, search data, display data
- Site data: User behaviour on your web properties
- · Sales data: Online sales and offline sales as well
- Marketing data: Marketing insights, leads data, and social data
- Enterprise data: Any data that helps shape our understanding of a business and its processes, profitability

As Edelmann/Banfi describe, 45% of companies admit they have limited to no understanding on how their customers interact with them digitally and only 6% understand customer needs extremely well.8 Cloud solutions help address this issue. This should always include the adherence to the highest security and privacy standards. Cloud solutions should also allow for an openness of the system without lock-ins and the ability to connect and process data regardless of the source and the amount. With a cloud solution advertisers and their agencies would be able to bring data under one roof so that they can better analyze and activate it. Therewith it would break down data silos and make smart data analysis available for marketing.

In a perfect world marketers would know:

- · How do consumers feel about my brand?
- When and where do consumers interact with my brand?
- What role does marketing play vs other factors in driving my business results?
- What marketing should I do next (and what will the results be)?

However, as described in a 2018 Harvard Business Review article: "The biggest gaps in real-time customer analytics capabilities are in the areas of accessing cus-

tomer data, performing analytics on those data, and taking action based on the resulting insights."9 Many CMOs understand that it is important to drive more value for their business from data, and multiple publications have identified data-driven marketing as the key to competitive differentiation and getting ahead in the marketplace. A Forrester study in 2017 helps understand just how much: Richard Joyce, Senior Analyst at Forrester, notes that increasing data accessibility by 10% drives a surge of more than \$65M additional net income for Fortune 1000 companies. Joyce warns, however, that nearly 2/3 of employees don't trust company data. If data is inaccessible, of low quality, or incomplete, business analysts won't put their trust in it when it comes to decision making. In addition, businesses run the risk of incorrect or misleading results.¹⁰

One of the most common themes are CMOs' desire to better understand their customers, as they have a huge concern that they are not using all of the data they could, and that time to insight is too slow. However, there also companies that have addressed these challenges, in order a) to better understand their customers, and b) democratise these insights across their organisation. As in most cases the key challenges¹¹ to doing this are:

- · Data sitting in silos
- · Lack of technical resources
- · Inability to share insights across teams

Should agencies not be able to be the mediator and enabler to fill these gaps and be enabler of big data activation for advertisers? Market figures suggest that there are business opportunities for third parties able to master data for advertisers. While there are few if any reliable figures to be found on the total addressable market for Cloud for Marketing in Germany, International Data Corp. (IDC) expects worldwide revenue for big data and business analytics (BDA) solutions to reach \$260 billion in 2022, with an annual growth rate (CAGR) of 11.9%. It values the current market at \$166 billion, up 11.7% over 2017.12 The 2018 CMO Survey states, that companies currently spend 5.8% of their marketing budgets on marketing analytics. Companies expect to spend 17.3% of marketing budgets on analytics in the next three years.13



3.1 From Automation to the full potential of AI for Marketing

The spectrum of possible cloud-based applications in Marketing for advertisers and agencies is broad. In order to gain more efficiency in data handling and to develop the ability to work with large sets of data, agencies in particular are aiming at higher degrees of automation and speed in their processes. Storing, retrieving, matching and visualising large datasets can be time consuming and expensive without the right hardware and infrastructure. Google's BigQuery is an example of an enterprise data warehouse that solves this problem by handling SQL queries very quickly. By combining it with data visualisation products like Tableau or Google Data Studio, businesses can quickly analyze huge amounts of data and answer complex questions through an easy-to-use graphical interface for fast, interactive analysis. It facilitates the automated analysis of billions of lines in seconds without server-side administration or programming. In addition, Google's ad platforms allows for the analysis of data across ad

accounts and customer databases, to then use sophisticated machine learning to target, run and optimize ad campaigns. This includes automated bidding strategies, based on conversion value or target return on ad spend or the creation and distribution of dynamic creatives. These kind of cloud-based solutions empower agencies to create dashboards in minutes, share reports and insights online with their customers automatically with minimal manual work, once the necessary processes have been established.

The full potential of AI in cloud-based applications is yet to be released. Traditional agencies and new entrants will seek to strengthen their footprint in this area and develop new use cases and business opportunities, around natural language processing, predictive analytics, simulation and dynamic content creation.



3.1.1 Setting up a Cloud for Marketing project

Advertisers should be able to manage data lifecycle seamlessly, avoiding the need to cobble together different products. In order to get the most out of Cloud for Marketing solutions, it is important to regard the implementation of such data-driven project as a step by step process:

- 1. The necessary data sources have to be identified, and data needs to be prepared for handling.
- 2. Skills, tools and workflows need to formalised and new capabilities need to be acquired. Also, it is import-

ant to ensure an automated platform governance to ensure seamless execution.

3. Advertisers and their agency partner respectively can now focus on data and activation use cases. The most common use cases will be described below in section 1.3. 4. Only then, any party should start to focus truly innovative cases to leverage the full potential of Cloud and Al. This will typically require a sophisticated approach of unstructured data handling and expertise.

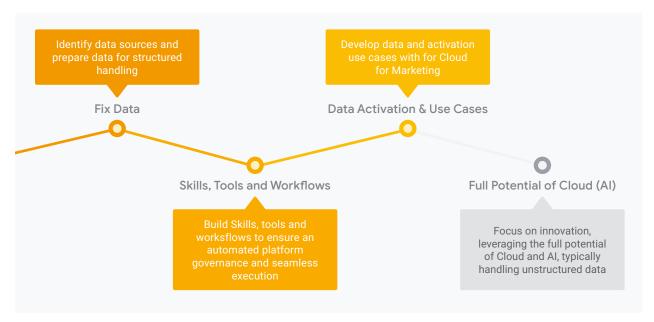
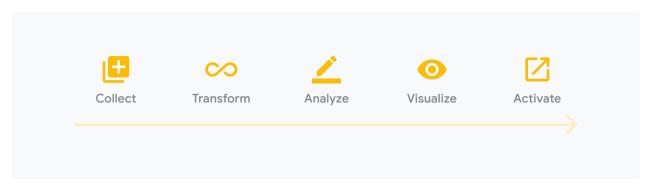


Fig 3.1 – The process of Cloud for Marketing sophistication

Google defines "Cloud for Marketing" as "The use of Google Cloud Platform products to make marketing through Google Adtech better & faster." As such it describes a MarketingTech fueled solution for Marketing Analytics.

Google's Cloud for Marketing solution is designed to let businesses collect data from popular sources, apply models to their datasets, and activate insights back into their campaigns, email platforms, CRM platforms, and more. Thereby it is supposed to enable advertisers at every stage:

- · collecting data with ease
- · transforming it with clean-up tools
- · running analyses in seconds without server setup
- · visualizing it with dashboards
- activating insights to drive better results



 $\textbf{Fig 3.2} \ - \textbf{Google's Cloud vision, a solution to manage the whole data journey}$



3.2 Use cases of Cloud for Marketing

Advertisers and their agency partners will generally start to work with and attempt to activate structured data, since the size of the data and the collection is smaller, and more specific. Google has identified three ways, where Cloud for Marketing can help agencies and their clients to create value from structured data, mostly but not exclusively with the use of site analytics, CRM, sales and in

some cases media POS, data as well as online reviews and social/customer interaction for sentiment analysis:

- 1. Understanding the Customer Journey
- 2. Predicting Marketing Outcomes
- 3. Personalizing the customer experience



3.2.1 Understanding the Customer Journey

Understanding the customer journey is all about being able to empower more people working at the company and/or the agency to analyze more data faster. Many marketers try to "skip ahead" to a single view of the customer, but there is tremendous value to be gained simply by making data more accessible and disectable. Google describes currently at least three specific use cases developed around this objective:

- 1. Trendspotting: a tool to help a marketer get more access to customer data and spot meaningful trends in purchase behavior to inform decision-making.
- 2. Self Service Analytics: mainly based on a dashboard for marketers to share internally and externally instead of sharing PDFs or presentations, also referred to as a customer portal, merchant portal, or a data exchange. It is meant to be used for insight aggregation projects directed at improving decision-making by sharing data.
- 3. Customer Segmentation: a rule-based segmentation, which build lists of customers based on predefined attributes that can be synced into marketing platforms. Also referred to as DMP (data management platform) capabilities, 1st party data, audience creation, targeting.

3.2.2 Predicting Marketing Outcomes

The second theme centers around the desire to predict marketing and customer outcomes. Marketers want a better view of future outcomes, in order to make better decisions about their products, Campaigns, and Marketing investments. This is often based on the ability to integrate sales and marketing data as well as 1st party data from websites. There are two dominant use cases to predict marketing outcomes:

- 1. Lifetime Value Prediction: building lists of customers based on predicted customer lifetime value that can be synced into marketing platforms.
- 2. Purchase Prediction: making predictions about purchase propensity for different groups of customers that can be synced into marketing platforms. Also: Lead-scoring, propensity modeling, conversion prediction.



3.3.3 Personalizing the customer experience.

The third cluster of use cases is based on the desire to personalize customer experiences in as-close-to-real-time as possible. Personalization requires us to segment customers faster than we can manually generate rules. However, very often advertisers do not have a personalization strategy, as it is difficult to identify, prioritize, and reach out to groups of consumers they might be missing or neglecting. Google currently puts forth three specific use cases to solve the challenge for personalizing the customer experience:

- 1. Sentiment Monitoring: analyzing customer service interactions for content and sentiment in order to adjust marketing messages based on experience.
- 2. Data-Driven Segmentation: using a clustering algorithm to segment customers based on behavior, rather than predetermined attributes.
- 3. Personalization Engine: using segmentation and predictions to influence what a customer sees on the site or app.

4. Key Findings by the INSEAD Strategy Team



4.1 MarTech and Cloud as disruptor

Due to digital disruption, media buying has become commoditized. At the same time, advertisers are more interested in direct contact with customers, prolonged multi-touchpoint customer engagement, move to edge/ mobile computing, focus on conversion ratios, ROI, etc., and many new data channels have become available like geolocations, eye-tracking, etc. Thus, Agencies are under relentless pressure from these technology and market forces to change their business models. The new marketing ecosystem would be a direct, iterative, 24×7, omnichannel and multi-dimensional (online-offline integration) relationship between all key stakeholders. Since it is still evolving, many new entrants and startups have emerged trying to create value by engaging in different combinations of traditional functions like activation, technology management and consulting, particularly in the MarTech space. For all these reasons, MarTech firms have outperformed global stock indices and show healthy multiples. Thus, market considers them to have strong growth potential and this in turn attracts new capital and investment in this area.

According to Scott Brinker (VP Platform ecosystem at Hubspot), many of these startups are still figuring out their business models. Consolidation is expected in the next 1-2 years and some of these firms will either close or will be acquired. This will be accelerated if a recession occurs. However, even after consolidation, the final number of companies will be higher than previous peaks

due to the ubiquity of analytics and Cloud.¹⁴ Due to the diversity of software and platforms, the integration of data over different systems and from different companies will be a big challenge.

Traditionally, advertisers and agencies either selected the best software bundle or the best stand-alone software for their needs. In the future, they might be part of multi-sided platforms. Traditionally they either chose a software or a service. But in the future, they might be opting for a hybrid model, e.g. a consultancy coming with its own platform. Traditionally they could either build a modification inhouse or buy it externally. Now they could do both, with a custom modification over a common core software.

Echoing these changes, the business models of agencies and consultancies have evolved, too. Earlier marketing agencies focused on traditional areas like planning and activation, while tech-consulting firms provided either strategy or tech implementation services. But recently, tech consultancies are increasingly investing in marketing companies. They are starting units like Programmatic Consulting, Media Strategy and Activation and Ad Tech Implementation. Agencies on the other hand have acquired many digital specialists, with a focus on performance, programmatic, and data analytics, ot they are setting up dedicated units for Consulting and Technology.

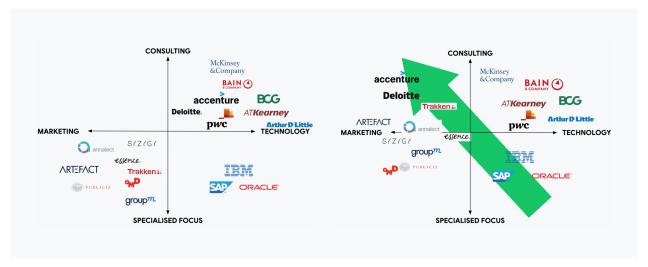


Fig 4.1 – Consulting companies (top right in left matrix) and agencies (bottom left in left matrix) are both moving to a combination of consulting and marketing-based business model (top left quadrant of right matrix)

Thus, imagine a 2×2 matrix. The Y-Axis represents the core business model of company from focused on either marketing or tech to a generalist in consulting. The X-Axis would represent the domain from marketing on the left to Technology on the right. All are moving to top left quadrant in such a matrix as above.

Thus, in future, firms can retain competitive advantage through¹⁵

- Creating and owning unique content or IP for algorithms/ platforms
- Developing deep expertise applying specific products/ processes

- Being able to create customized combinations of products and processes for specific advertiser needs
- Taking ownership of an increasingly complex marketing and tech landscape, which advertisers are not willing an/or able to handle

Business models of agencies are beginning to align more and more around these focus areas in addition to the more traditional media activation and distribution. Below you can find a simple perspective on the Omnicom Media Group, building structures around the evolving business models. How this may look in an org structure, will be covered in section 4.2.

Consulting Unit

Create custom multi-dimensional, multi-functional and cross-geography solutions, e.g. Annalect



Media & Client Management

Client / Account & Media Activation / Distribution Expertise, e.g. OMD

Technical Knowledge & Specialised Platform Expertise

Google Analytics and GMP e.g. Trakken

Fig 4.2 – Three core focus areas of future agencies

As the process of building new business models and respective structures may involve a lengthier process, big firms might be at a disadvantage, as changing direction of an organization will cause significant friction and internal politics. Smaller agencies with a pure focus on digital can pull ahead if they quickly adapt to trends. On the other hand, big firms may leverage scale to get more benefits from Cloud and other MarTech platforms and solutions across multiple accounts. They may also have more resources as well as as a larger set of various types of clients to generate income from new opportunities.

As companies focus on these areas, the trend for Inhousing could play a big role in shaping the future marketing ecosystem. Advertisers are increasingly building inhouse capabilities around digital marketing to control costs, accelerate process and impact, get proximity to

customers, track ROI, align incentives, get trust/ transparency. While the agency executives interviewed have differentiated views on Inhousing, everyone agreed that there will still be need for expertise and products from Agencies and Consultancies.

The matrix below summarizes the future landscape based on how advertisers maximize ROI from Inhousing and how agile the Agencies are in adapting to above market changes. Currently, we are in the green square with market in flux. If Agencies change their models quickly and it is difficult for advertisers to develop any of the above focus areas inhouse, agencies will dominate the landscape. On the other hand, if agencies do not focus on above areas and advertisers can develop their own skills, Inhousing will dominate. If both agencies and advertisers are agile, new hybrid models will emerge. ¹⁶



Fig 4.2.1 - Inhousing might dominate if agencies are not agile and/or lose focus on core areas

It is yet to be seen what the organization of a future marketing agency would look like, especially in relation to cloud computing. According to Puranam and Vanneste¹⁷ organizations can interact in different ways based on governance costs of those interactions (ease of measuring value, ease of transfer of services, etc) and scope of synergies (alignment of interests and goals). Based

on the interviews conducted, agencies have various different definitions and perceptions of Cloud and its promise, which could lead to different business models. It is important for Agencies to understand these changes and develop a comprehensive vision, so they can take a long term strategic approach rather than a tactical approach changing direction with each new project.



4.2. Operational Excellence and Readiness for Success of Agencies

The following section presents the findings with regards to operational excellence and readiness for success of cloud activation. The team interviewed a focus group of agencies covering smaller specialized agencies, traditional large agencies as well as new spin-off arms of large agencies. Based on discussions with agencies, transformation in the following 5 areas is identified as essential to successful cloud activation in agencies.



4.2.1 Vision and Leadership

It comes forth from the interviews with agencies that all of them understand the importance of cloud and allied technology and the value it brings. However, agencies approach the subject in different ways. While some agencies were observed to have a clearly defined cloud vision others took a more 'learn as you go' approach. Consider the below examples:

- · Artefact had the highest degree of planning but wasn't using any cloud based products yet;
- · Essence and Syzygy had a more task/goal based vision and seemed to incorporate cloud in accomplishing these goals. The agencies that incorporated it faster (possibly without pre-defining a 'cloud vision') have done more work with cloud in terms of actual marketing use cases for their customers.
- Melanie Pieper, CTO of Axel Springer's digital agency eProfessional stated that >50% of future revenues in her operations should be driven by consulting fees. In her vision the integration and deployment of cloudbased marketing use cases are a driving force behind this ambition.

Overall, no clear correlation was observed between the degree of a crystallization of a vision for cloud and the extent of sophistication of present cloud capabilities. When speaking about the challenges that agencies face, Marc Nabinger, the Director, Agency for Google explained:

"One of the key challenges is that they will need (to race against) time to shift from the old model (buying inventory) to the new model (technology based marketing and/or consulting model) and actually generate income from that. Its like conducting an open heart surgery to create the new heart while the torso is already open."

Thus, the most important factor likely to determine the cloud sophistication of agencies will be 'agility' - here defined as the ability to react to and on board new products and technology and adapt to the changing needs of the clients.



4.2.2 Partner Engagement

Overall, decentralization of power was observed, i.e. that cooperation between multiple partners was required to completely unlock the benefits for clients of agencies. As Marco Schierhorn, Managing Partner Marketing Technology at Omnicom, described: When Annalect implemented the online-offline cross-device use case for a client with many restaurant franchises, they had to source different pieces of data from different parties (CRM data, restaurant data, mobile location data & data from media touchpoints) to establish a holistic look at the customer journey. Compare this with traditional advertising where the agency would have delivered ads and measured results in terms of CTR, Conversions etc requiring only its

own data (probably using some 3rd party data tool) and the increasing need for multi-party cooperation is clearly visible. In addition to ad agencies, companies that supplied data and storage, online-offline data integrators, analytics and SaaS providers, DSP and SSP companies have gained prominence in the cloud era.

Talking specifically about cloud service providers, Google Cloud Platform (GCP) was observed to be the partner of choice in most cases where agencies chose a single central partner. However, flexibility by means of pushing the cloud service provider decision lower down the value chain (using a provider of the client's choice) is an emerging trend.



4.2.3 Processes and Organizational Structures

Traditionally data and analytics units at agencies were not client facing. However, with the penetration of cloud and allied technology, these experts are often required to become client facing and construct creative solutions working directly with advertisers. Two new types of organizational structures were seen to evolve to accommodate this change;

· Multi-arm structure: In this structure, the parent agency has multiple arms. Typically there are front agency/agencies and an advanced technology subsidiary (data science, cloud computing, AI). The front agencies continues to engage with the client on

traditional aspects of the advertising business. The advanced technology subsidiary provides consulting services to the front agency for internal needs and directly engages with clients for the more advanced technology enabled marketing needs.

· Pizza-pie structure: In this structure the agency has several departments such as marketing, data science, cloud etc. An interdisciplinary client facing team is created picking experts from each department. The interdisciplinary team is like the pizza with each piece being an expert from each department. It is this team of experts that engages with the client.

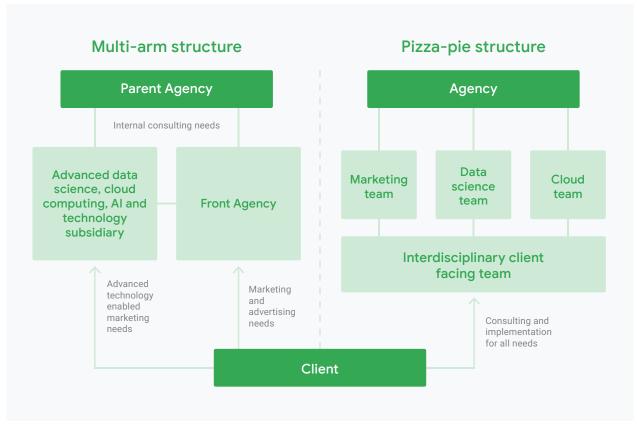


Fig 4.3 - Different structure types to bring Cloud for Marketing to clients

Thus, expertise can reside in separate companies, separate departments or the same team. For instance, within the Omnicom Media Group (OMG), these skills reside primarily in different companies with OMD focussed on media & activation and development of client accounts, Annalect focused on customized consulting and data activation and Trakken, a DataScience and Technology specialist, focused on the entire Google Marketing Platform as well as Google Cloud, Google Analytics, and Optimization. In Artefact, there are separate departments in the same company called Activation, Technology and Consulting, which focus in these areas. In the case of of Essence Digital these disciplines are integrated in the

same unit with one team of skilled experts, together as per project need for maximum agility. As Robert Jacobi of Essence describes it:

"We use GCloud and Big Query as the basis for media forecasting and reporting, with both probabilistic and deterministic models to improve media purchasing and control with granular data. What seems new today, will quickly become a requirement. Therefore it is central for us to offer these competences to our customers in hybrid teams already today."



4.2.4 Training and Human Capital

Through the interviews a knowledge and talent gap was observed as an industry-wide challenge. The most commonly quoted capabilities in need to develop cloud applications and infrastructure were data and computer language skills, specifically Python and SQL. But also more general data management and analytical consultancy skills were identified as much needed competencies. Agencies are using a multi-pronged approach to address this gap.

Mandatory Training: Agencies provide current employees with certifications and formal training wherever possible to keep them abreast with new developments and products. By making adequate high-quality training resources available, cloud service providers could differentiate themselves and become the partner of choice.

Leveraging Motivation: Agencies use well-spirited competition and intrinsic motivation to boost the knowledge acquisition process of employees. Web learning resources allow easy access and the need to be updated encourages employees to utilize these resources. Further, internal events such as hackathons are used to further encourage employees and leverage their internal motivation.

Talent Acquisition: There is an unprecedented need for data scientists and technocrats in the advertising industry. However, for fresh talent in engineering and data science, advertising is not necessarily the industry of choice. Agencies are trying to generate awareness within this talent pool about the opportunities for growth in order to attract this talent.



4.2.5 Monitoring and Evaluation

In lieu of the changing ecosystem, new means of evaluation must be adopted both for the business as well as its employees. In the past, KPIs were isolated at ad campaign level. However, with the agencies influencing the client's entire value chain, their performance must be measured in terms of the value they add to the client's value chain or in other words, their contribution to im-

proving the client's ROI. Furthermore, for agencies to survive in this dynamic and turbulent era, employee incentives need to align with what's most important for agencies- agility and adaptability. Employee goals and targets must be aligned to encourage learning and adopt new technology rather than being purely revenue/profit centric to ensure long-term survival.



4.3 Cloud for marketing adoption / Barriers and Impact

Cloud and allied technologies unlock a plethora of possibilities. However, adoption is a gradual process that requires effort and resources. Based on a conversation with Omnicom COO Peter Kuhlmann, businesses are still in the process of understanding their own capabilities and don't have concrete expectations regarding marketing investment. Talking about utilization of marketing cloud investments throughout marketing organizations he said: "In not too few cases it's like they have bought 5 airplanes, but they don't have pilots. They don't know if they want to be a local carrier, transatlantic carrier or just a cargo carrier."

Looking at the clients or advertisers, different industry verticals will adopt Cloud at a different pace. Most companies which are digitally mature and highly competitive will be eager to adopt new Tech. Those which have high resistance, be it for reasons like GDPR (e.g. Healthcare and Telecommunications) or due to an unwillingness to change will fall behind in MarTech adoption. Most agency executives predicted those verticals to be most favorable of Cloud technologies where various touch points allow for a higher density of data, hence an opportunity to make media activation decisions based on CRM, sales and onsite data, especially the Retail industry standing out.



4.3.1 Ease and barriers of Implementation

Ease of implementation has three fundamental barriers which are explained below;

- 1. Data procurement and activation: Collection and integration of data from various sources is time consuming and introduces complexities around having multiple people involved. Having access to data has been named the number one determining factor for the successful implementation of a Cloud for Marketing project. Timo Aden of Trakken mentioned the coordination of stakeholders in the process of data attainment, especially across business units (e.g. Marketing and IT) as the main obstacle for a successful cloud for marketing project. Further, when data comes from different sources it often lacks dimensional integrity. As a result, multi-party data integration complicates implementation. According to Ksenia Nekrasova from Google, clients who sell digitally are more likely to be able to adopt use cases quickly vs clients that must integrate offline data. She also points out that industries dealing with sensitive data such as health related data or government data are likely to face more stringent regulations compared to e-commerce or retail which makes procurement and activation harder.
- 2. Advanced modelling capabilities: Complex machine learning techniques and artificial intelligence can be used to derive deep insights out of data. However, this requires greater computational resources and expertise which is often not easy to find and has limited availability. As a result, need for advanced modelling capabilities makes the implementation of use cases harder. In reality, advanced modelling capabilities will be particularly necessary when "unstructured data" is in use, rather than structured data.

3. Deep data history: Historical data is not always available in the right form and shape. If specific structured data is required, there may be a time lapse before when sufficient becomes available to enable predictive use. Ksenia Nekrasova from Google also points out that industries with longer sales cycles are slower in adopting some of the cloud based marketing use cases. This may be explained by the fact that such industries (automotive for example) are characterized by a time lag of several years between subsequent purchases resulting in availability of only limited historical data. As a result, use cases requiring deep data history are harder to immediately implement.

In contrast, Timo Aden of Trakken named the following three industries as most likely to adopt to and benefit from Cloud for Marketing: Automotive, Retail (especially non online pure player but with offline store), and Insurance / Finance. Hence, it can be assumed that individual players in the market may have found industry specific solutions around Cloud tech which will expedite its onboarding for specific clients in a given industry, and obviously, existing business relationships will be used to upsell Cloud for Marketing as part of existing and prospective consulting projects.

In order to describe the ease of implementation, a simple scoring system was designed. For the presence of each of the above barriers, one index point was added and a score between 0 to 3 called the 'complexity index' was calculated for every use case. The table below presents the various use cases along with their complexity index:

| Use Case | Data Procurement and Activation | Advanced Modelling Capabilities | Deep Data History | Complexity Index |
|---------------------------------|---------------------------------------|---------------------------------------|----------------------|---------------------|
| Trendspotting | 0 | 0 | 1 | 1 |
| Self-service Analytics | 0 | 0 | 1 | 1 |
| Customer Segmentation | 1 | 0 | 1 | 2 |
| Lifetime Value Prediction | 1 | 0 | 1 | 2 |
| Purchase Prediction | 1 | 0 | 1 | 2 |
| Sentiment Modeling | 1 | 1 | 1 | 3 |
| Personalization | 1 | 1 | 1 | 3 |
| Online - Offline Integration | 1 | 0 | 0 | 1 |

Fig. 4.4 – Scoring Model for ease and barriers of implementation



4.3.2 Client Impact

Client impact, here, has been defined as impact on the bottom-line of the agencies' clients. An impact score is assigned to the use cases according to the criteria defined below. Lower scores have been assigned to use cases that only provide information that too pertaining to isolated parts of the business. The highest scores are assigned to use cases directly impacting revenues/profits and improving business predictability.

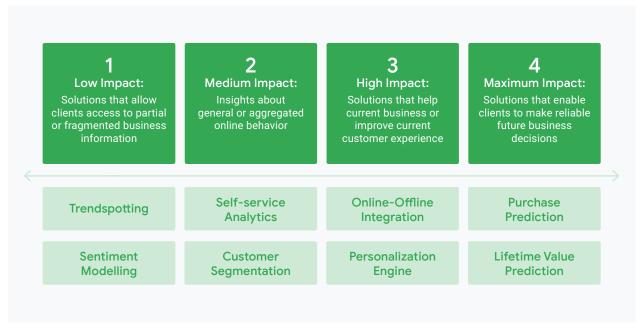


Fig 4.5 – Scoring Model for client impact



4.3.3 Implementation-Impact Graph

A graph is plotted with impact on the X-axis and complexity on the Y-axis to assess the use cases. It is predicted and recommended that use cases with a low complexity index (easier to implement) and high impact score are likely to be most appealing to the agency-client eco-

system. The emergence of online-offline-integration as a popular use case in agency interviews supports the accuracy of the framework employed to assess the use cases.



Fig 4.6 - Implementation-Impact Graph

In addition to the impact on the bottom line of the business, the adoption of use cases will likely also depend on a more subjective criterion - the area where the client believes they have most potential to overcome their weaknesses. When asked about the most valuable use cases for clients Peter Kuhlmann of OMG thinks it not possible to pick one over the other, but prioritization depends on the evolution of the business.

"If you understand the consumer, audience building delivers really important insights. If you've created an audience, it's definitely important to understand what's the right creative, the right context and platform. Then you should measure what is the impact on your business and indicative KPIs and last you should visualize all these

to bring these insights to the entire set of stakeholders in marketing, so everyone has a consistent view"

, he explains. Thus, if a business believes that they lack a thorough understanding of the audience, they may choose to engage on use cases in this area most with the help of its agency partner.

This model makes no claim of being validated and applicable or even of being accurate for the entire industry. It offers, however, an invitation to think about the roll-out of Cloud for Marketing projects more conceptually and heuristically, in order to derive one's own prioritisation model and consequently successful go-to-market strategies.

5. Conclusions



The analysis by the INSEAD & Google research team generates a clearer picture of the effect of Cloud for Marketing on the agency ecosystem in Germany.

Based on literature research and expert interviews, the initial hypotheses could be validated. However, it is evident that the various players in the market are at different stages of technical maturity and there are several views, strategies and organizational structures envisioned, tested, and already developed.

Nearly all interview partners agreed, that Cloud computing will have a profound impact on the advertising ecosystem, and create new competition for existing players. Specifically new entrants in the field with a high degree of digital expertise in data analysis and data activation will make the agency and partner landscape more diverse and shake up the industry. At the same time, incumbent agencies will invest more in these capabilities, either by upskilling existing staff, hiring new professionals or by acquiring specialised companies in the market. This paper focuses on the existing players in the market. However, in the interviews there was a widely shared understanding that consultancies, e.g. Accenture, BCG, McKinsey, Deloitte, etc., will begin to invest heavily in this field to expand their scope to encompass marketing analytics and marketing strategy consulting. These are areas where agencies are still the dominant force, but how much longer? Agencies which have started to automate processes, master digital data and develop technical services have an edge compared to others. But the pressure to change and to exhibit more agility will grow over time.

While most agency executives agree that Cloud Computing will have an impact on the value chain of traditional agencies and future business opportunities, there is no common definition of either time frame, process or structure. Traditional media agencies are used to a remuneration based on a media fee, provisions or on trading media inventory. Selling technical implementation and marketing analytics projects per daily rate or based specific project KPIs entails an expanded value chain, a different kind of business model and different kind of workforce. The technical disruption caused by MarTech and specifically Cloud for Marketing will fuel an ecosystem of more transparent data-driven business models, impacting the bottom-line of agencies. Some players have already started their own consulting units (e.g. Analect) and/or acquired such expertise. Some other agencies such as Trakken (or Jellyfish and S4 Capital - not interviewed for this paper), have built their business model on marketing consulting with data analytics from the get go. These new types of agency models are likely to gain additional market share. At the same time, it remains to be seen if clients put the trust in traditional agencies to be able to step up to this new role of agnostic consultancy. Given their heritage of tradingand media-fee-oriented business models and often the perceived lack of technical consultancy know-how, this remains a challenge for agencies which they will have to face and tackle over time.

So, what is there to do? Assuming, agility is a main success factor and technical expertise the basis for building new business in a cloud-based Marketing world, the following steps are to be taken.

1. Invest heavily in people with a Growth Mindset:18

While this may appear an obvious principle, often cited and in many cases already adhered to, it remains the primary task. Besides the technical expertise (outlined in section 4.2.4) provisioned either by hiring talent or via specialised training, change and transformation in an agile environment require a growth mindset and a constant strive for learning and development. With fixed mindsets transformation will not be possible, as it leads to a perseverance of the status quo, which arguably produced decades of economic success for agencies. Digital Leadership includes the willingness to improve, to try new things, to test and learn from failures.

- 2. Automate everything! In order to free up resources and better service clients, everything that can be automated, should be automated. This includes not only operational tasks, such as billing and reporting processes but also aspects of the core work, such as media buying, planning and optimization, mostly enabled via programmatic marketing tech. It also encompassed the governance and monitoring of these tasks via dashboarding and other managerial tools. More and more, the development and dynamic optimization of creatives (DCO) will be cloud-enabled and driven by AI, too.
- 3. Start testing and exploring now. The technical infrastructure to get started with Cloud for Marketing is available to agencies today. Advertisers are savvier than ever to collect and connect data and they are beginning to understand the opportunities arising from it. Now is the time to develop and test Cloud for Marketing use cases. Some examples are listed above, but agencies should and will develop their own applications over time.
- 4. Invest in an Analytics unit and build a business with Cloud for Marketing. Whether labeled Data Analytics, Smart Analytics or Business Analytics, agencies will need a high level of competence and expert knowledge, bundled in a specialist unit. It should have the technical ability to connect data points at scale as well as the intellectual acumen to generate practical insights and improve business outcomes for clients.

This business entity should have the leeway to explore new business models and new consulting approaches with different use cases to expand the value chain. Selling project work based on technical implementation and marketing analytics will require senior consultants, which advertisers are willing to pay for. No longer the amount of media, but the cognitive ability and seniority of agency consultants will be the determining factor for economic growth and new business. As such, agencies will need fewer but higher educated and more expensive professionals. As described above, some agencies have started to buy into this concept; for consultancies this is already a major focus.

In many cases, Chief Strategy Officers (CSOs), Chief Transformation Officers (CTOs) or Chief Innovation Officers (CIOs) are hired to explore new business opportunities with clients. Too often, these senior executives have little freedom to think long-term in areas other than the core agency business. Developing a more strategic business vision aside from existing revenue streams will be vital for success and should not be considered a side project. Starting a data-driven business unit now should be regarded as a strategic investment in a client-facing profit center. While margins and earnings may not yield the same results as the current business, it will be the cornerstone of the digitally transformed agency.

Players in an industry with proven business models and decades of economic success are often afraid to invest in disruptive and transformational innovation and rather try to innovate incrementally. A famous quote by Larry Page at Google is:

"Most companies decay slowly over time because they tend to do approximately what they did before, with a few minor changes... But incremental improvement is guaranteed to be obsolete over time."

We cannot prove but assume that agencies which cannot keep up with the momentum will lose market share. It is therefore imperative to start building structures, skill levels and commercials around the new opportunities that arise from Cloud Computing in Marketing. If agencies remain agile to the changing environment and the disrupted marketing ecosystem, they will remain and gain market share. Otherwise, they risk losing control of data-driven media activation to inhousing by increasingly tech-savvy clients and to new market entrants in the agency ecosystem.

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