

**Introduction to digital media buying**  
Case: H.J. Heinz

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Abstract <p>The purpose of this thesis was to introduce the market of digital media from the procurement prospective. Based on the research, Heinz current digital media activities were analyzed in order to find room for improvements.</p> <p>The analysis was based on a study of the structure and trends, buying methods and quality measurement techniques within the market of digital media. Heinz's current spending on media and its quality evaluation methods were studied. It was seen that Heinz lacked the knowledge of digital media buying that would enable it to develop the required strategies that could lead the company to reach its objectives.</p> <p>Based on the research it was advised for Heinz to invest more in digital media, focusing on mobile advertising and social media. In addition to that Heinz media performance evaluation template has been modified in order to standardize all used digital media terms and assist in further evaluation of digital media performance.</p>		
Keywords/tags  Digital advertisement, online media buying, indirect procurement		
Miscellaneous		

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## **Abbreviations**

FMCG – Fast moving consumer goods

RTB – Real Time Bidding

DSP – Demand Side Platform

SSP – Supply Side Platform

TG M30-40 – Target Group Male 30-40 years old

CPM – Cost per Mille

CPC – Cost per Click

CPA – Cost per Action/Acquisition

CTR – Click through Rate

RON - Run on Network

ROC - Run on Category/Channel

ROS – Run on Site

RTB - Real Time Bidding

CPI – Cost per Impression

CPCcon – Cost per Conversion

CR – Conversion Rate

eCPC- Effective Cost per Click

eCPM – Effective Cost per Mille

CAC- Customer Acquisition Cost

FB – Facebook

CLV – Customer Lifetime Value

AOV – Average Order Value

ALT – Average Customer Lifespan

AGM – Gross Margin

IAB - International Advertising Bureau

PC – Personal Computer

MAU – Monthly Active Users

CAGR – Compound Annual Growth Rate



## Glossary

**Programmatic Trading** - an application of artificial intelligence together with a massive data storage aimed to bid on advertising inventory (ready advertising material e.g. banners, rich media, etc.) in real time and to be shown to a selected viewer. The selection criteria are aligned with ads context and device.

**Paid Search** – a type of advertising where site owners have to pay a fee for their products (web sites) to be shown as the top placement in the results pages of search engines.

**Demand Side Platform (DSP)** - a platform that enables advertisers to buy inventory from multiple advertising sources: information from publishers, ad exchanges and ad networks. Advertisers use DSP to participate in RTB (=Real Time Bidding).

**Supply Side Platform** – a tool that helps publishers to sell out all inventory for the best prices.

**Agency** - a media agency, which buys advertisements from publishers and helps advertisers to plan media buying in an efficient way.

**Agency trade desk** - a centralized management platform that has similar functions to a DSP platform, but it has more management tools. Together with agency trade a desk advertiser can manage budgets, set ad verification parameters, obtain the best price and ascertain that the frequency of showing the ad is sufficient for achieving the goals of the campaign.

**Ad Network** - a network of different publishers aimed at helping marketers to buy an inventory that they need against a certain target group. Ad networks consist of information of publishers and their audiences.

**Ad Exchange** - a platform that simplifies the procedure of bringing together advertisers and the online media advertising inventory from multiple ad networks. Ad ex-change was introduced to solve problems in the online advertising market. Ad ex-changes help advertisers to find the most suitable piece of inventory for the right price by using a real time auctioning system.

**Impression** –the time that an advertisement has been seen by a user. Each time of displaying the advertisement on the web page is counted as one impression.

**Landing page**- a website opened by clicking a hyperlink on another web page. Usually a landing page is the home page of a company/user.

**Unique visit**- happens when any user arrives at the web site, stays there for some time and then leaves. The length of stay is an important factor when measuring the effectiveness of the web site.

**Unique visitor** - a single person who visits a web site. A unique visitor can make several unique visits.

# 1 Introduction

The aim of this thesis was to introduce digital media buying. Media buying is a part of indirect procurement, and the objective of media buying is to ensure the best placement and optimal price for an advertisement. There are two types of media that can be procured: traditional media and digital media. The digital media cover audio, video, image and text formats that exist in machine-readable formats (Caputo , Wolf & Borho 2006.). Currently, indirect buyers are more familiar with the procurement of the traditional media, rather than the digital media. This thesis focused on the digital media buying methods and efficiency evaluation techniques, and it was commissioned by H.J. Heinz. The author had an internship at Heinz Global Indirect Procurement and worked under the supervision of the Global Procurement Category Lead Sales & Marketing.

## 1.1 H.J. Heinz

H.J. Heinz is an American food processing company established in 1869 in Sharpsburg, Pennsylvania. Even though the company is represented by 15 key brands in more than 200 countries around the world, “Heinz Tomato Ketchup” remains to be the most recognized brand of the company on a global scale.

In 2013 H.J. Heinz was acquired by Berkshire Hathaway and 3G Capital for \$23 Billion USD. Since that time, the company has gone through major changes in the internal structure, corporate culture and plans for the future development. To-day H.J. Heinz is aiming to become the best and most profitable food company in the world. The company focuses on strengthening the awareness of all Heinz brands and implementing effective cost saving strategies.

## 1.2 Purpose and goal of the thesis

The goal of this thesis was to explain how digital media market works, what media categories can be bought and how the performance of media can be measured.

Heinz Global Procurement consists of two major parts: a direct procurement department that is in charge of purchases related to the products and an indirect procurement department responsible for the acquisition of goods and services that support the product. After the company was purchased by Berkshire Hathaway and 3G, the Global Procurement was given the assignment to optimize all current purchasing practices and develop cost saving procurement strategies.

Media buying is a strategic category within indirect procurement: it has a high value for the company, and the number of suppliers is rather limited. An analysis of the company's media budget has shown that H.J. Heinz's spending on digital media is lower comparing to other companies in the FMCG (fast moving consumer goods) market. Moreover, the company did not plan to increase its presence in digital media market in 2014 while same year Heinz's competitors were actively investing in digital media e.g. Mondelez International announced a new video-buying strategy, focusing 25% of its media budget on the digital media, where 10% of the ad money is invested in digital video. It became clear that there was either a need to increase the budget for the digital media or find more efficient and creative ways of digital media acquisition.

## 1.3 Research methods

In order to analyze the current digital media buying practices used by Heinz, it is important to study the aspects that describe the digital media market from a prospective point of view. The theoretical study will cover

the structure of the digital media market, the current trends and evaluation techniques of buying quality as well media buying opportunities. Since all the features mentioned above are difficult to quantify, a qualitative research method was used in this thesis.

## 1.4 Research Constraints

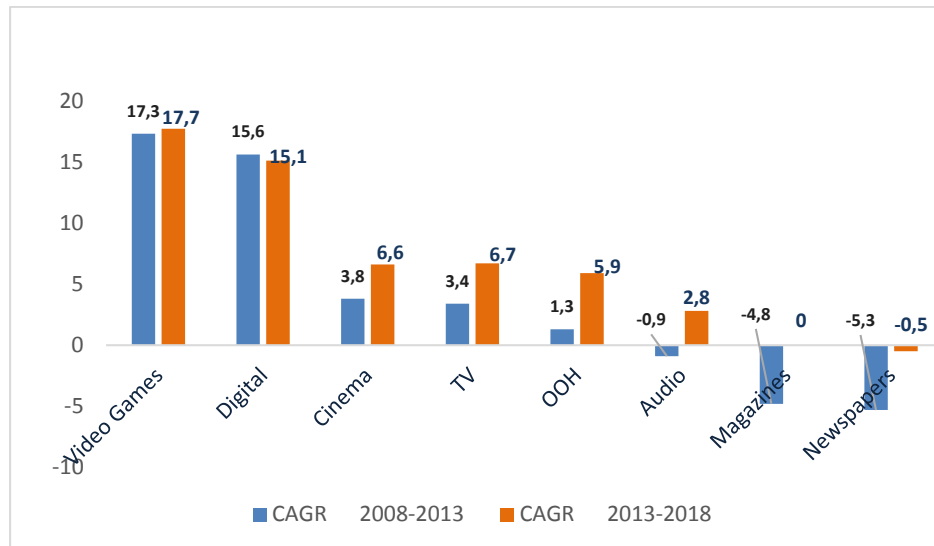
From the procurement prospective digital media are still in their infant stage. There is no professional literature available for indirect buyers who specialize in the acquisition of digital media. More than that, the digital advertising market is undergoing constant changes and developments. This makes it difficult to find reliable information about ad price forecasts and optimum budget shares per digital media type.

# 2 Digital media market

## 2.1 Market trends

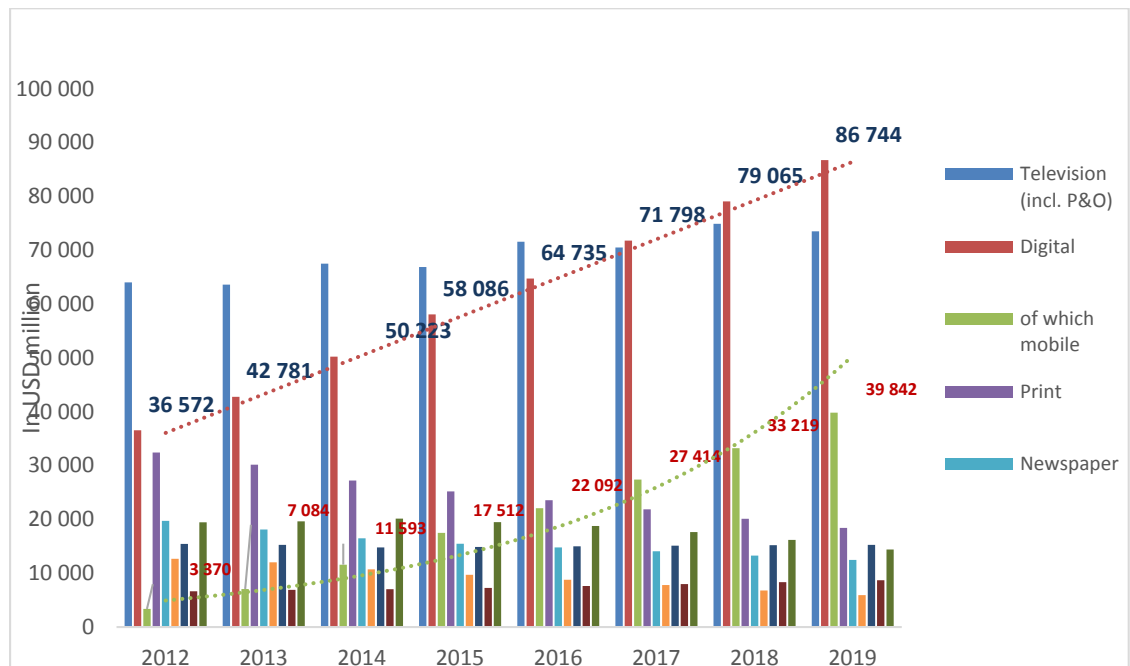
Today the media market is facing numerous rapid changes due to the rise of consumer demands, constant development of technologies and introduction of new de-vices. It is clear that spending and revenues in digital media advertising are growing faster when comparing to the traditional media categories. By 2014 video games and digital advertising had the biggest CAGRs (compound annual growth rate) of 17.3% and 15.6% respec-

tively. According to the values of the CAGR forecast, by 2018 the same media categories will lead by exceeding 17.7 % for video games advertising and 15.1 % for digital advertising (Figure 1).



**Figure 1** CAGR by media type, McKinsey & Company, Global Media Report 2014

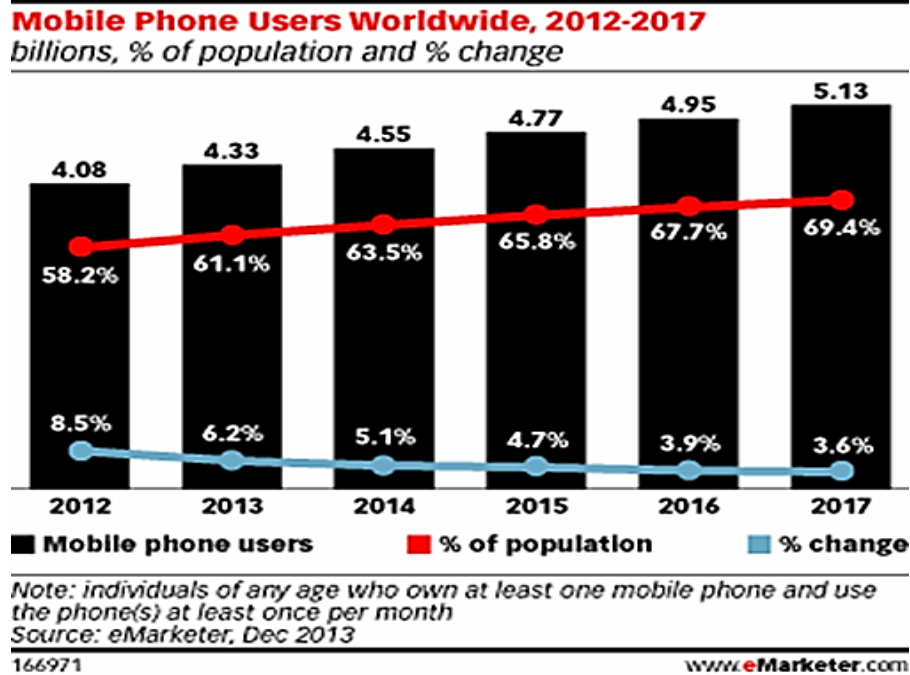
Another trend is the increasing growth of the digital media revenue: US media owners' digital advertising revenue will double from 36.5 million USD in 2012 to 86.7 million USD in 2019. Another important trend will be the fast rise of mobile advertising as a part of digital advertising: from less than 4 million USD in 2012 to almost 40 million USD in 2019. TV is forecasted to have a hardly noticeable increase in revenue over the years from 64 million USD in 2012 to 73.5 million USD in 2019. Other traditional media categories are predicted to decrease their revenues over the years (Figure 2).



**Figure 2** US Media Owners' Advertising Revenues, by media category (2012-2019), based on Magna Global Advertising forecast 2014

Digital media market has several raising starts that support its growth and development. Mobile advertising is considered to be one of the drivers of digital media market success. Noday consumers are more likely to use portable devices such as phones and tablets in their daily activities, especially since these devices became extra powerful and technologically advances. Apart from that, there are other reasons mobile advertising is expected to grow quickly: increasing numbers of mobile users, growing shipments of smartphones and other portable devices, increasing time users spend on mobile.

The number of mobile users is forecasted to raise steadily from 4.55 billion in 2014 to 5.13 billion in 2017. At the same time, global smartphone audience is estimated to grow from 1.75 billion in 2014 to 2.5 billion in 2017 (Figure 3). Most of mobile owners use their devices to browse the Internet: 2.23 billion people worldwide went online in 2014. The number will grow up to 2.97 billion in 2017 (Figure 4).



**Figure 3** Mobile Phone Users Worldwide 2012-2017, EMarketer Roundup: Global Media Trends, 2014

**Mobile Phone Internet Users and Penetration Worldwide, 2012-2017**

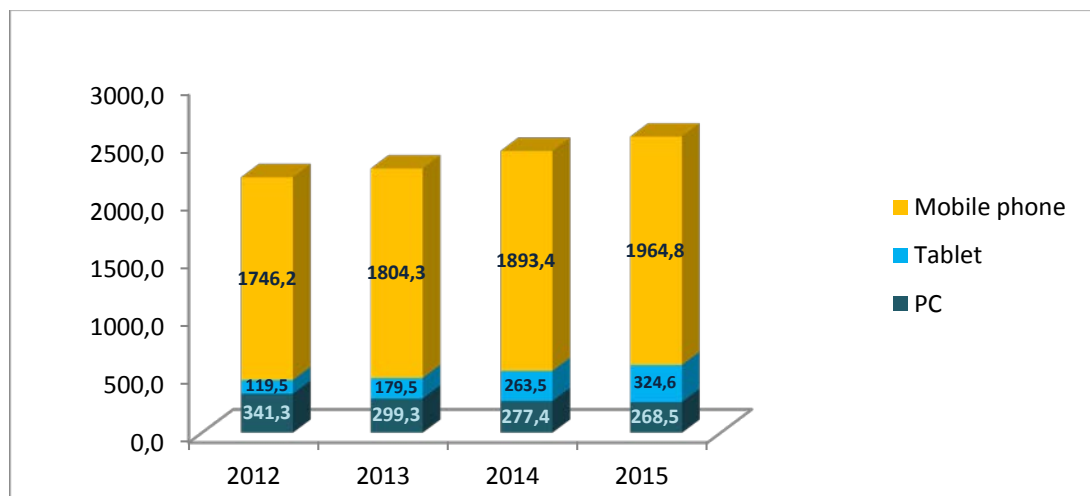
	2012	2013	2014	2015	2016	2017
<b>Mobile phone internet users (billions)</b>	<b>1.58</b>	<b>1.91</b>	<b>2.23</b>	<b>2.50</b>	<b>2.75</b>	<b>2.97</b>
—% change	37.4%	20.7%	16.5%	12.2%	10.0%	8.0%
—% of mobile users	38.8%	44.1%	48.9%	52.4%	55.5%	57.8%
—% of internet users	66.8%	73.4%	79.1%	83.6%	87.3%	90.1%
—% of population	22.6%	27.0%	31.1%	34.5%	37.5%	40.1%

Note: mobile phone users of any age who access the internet from a mobile browser or an installed application at least once per month; use of SMS/MMS is not considered mobile internet access  
Source: eMarketer, Dec 2013  
166972    www.eMarketer.com

**Figure 4** Mobile Phone Internet Users and Penetration Worldwide, 2012-2017, EMarketer Roundup: Global Media Trends, 2014



Global shipment of PCs (personal computers), mobile phones, tablets and other gadgets is forecasted to achieve 2.5 billion by the end of 2014. Shipment of mobile phones remains to dominate: 1.9 billion devices by the end of 2014. Tables has shown a quick growth from 119 million in 2012 to 324 million by the end of 2014. Shipments of PCs are forecasted to 268 million (Figure 5).

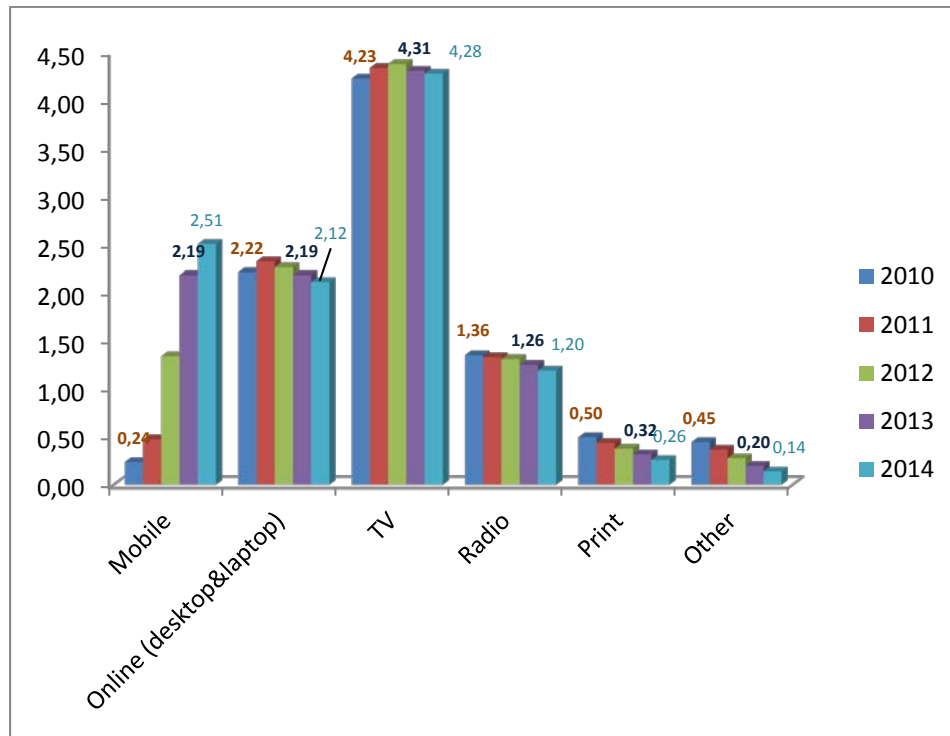


**Figure 5** Worldwide Device Shipments by Segment (Thousands of units), Gartner, 2014

The mobile market landscape is rapidly changing: today the smartphone market share is increasing. Over 1.3 billion smartphones are estimated to be sold by the end of 2014, resulting to a 26.3% increase from the nearly 1 billion items bought in 2013. The growth will continue, by the year 2018 global smartphone shipment is predicted to exceed 1.9 billion items.

Another important factor causing the change in digital media market development is consumer time spent. Today people are likely to spend more time on their portable devices, especially on their phones. In 2010 the average user was spending 24 min per day on their phone and 2 hours 22 min on their PC (desktop and laptop). In 2013 US adults spent equal

amount of time on their PCs and mobiles. In 2014 the time spent on mobile raised up to 2 hours 51 min, while PC time dropped to 2 hours 12 min (Figure 6).

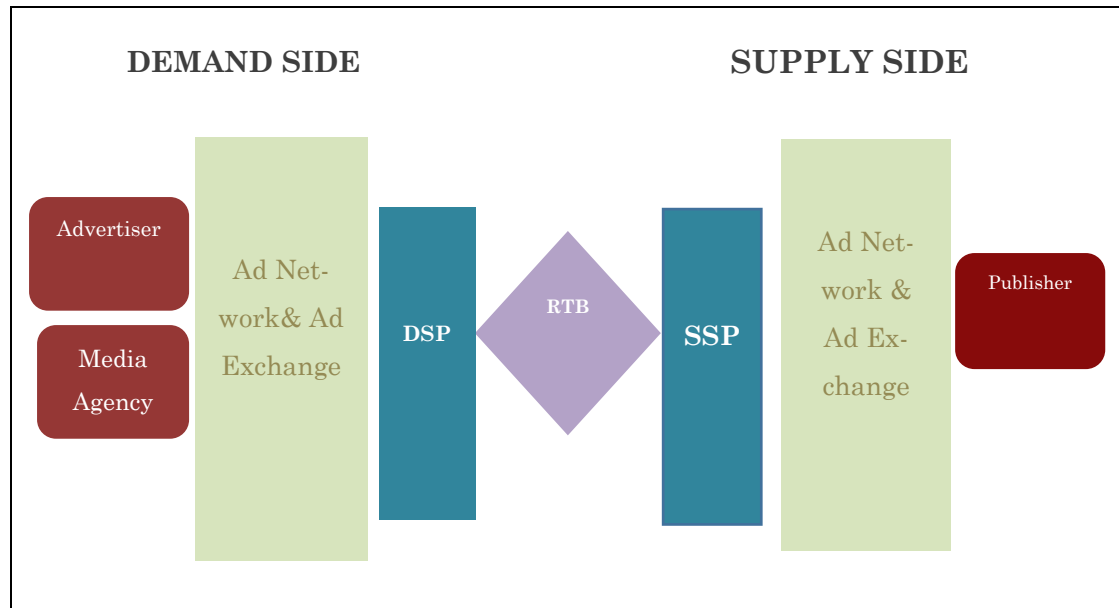


**Figure 6** Time Spend per Day with Major Media by US Adults 2010-2014, EMarketer, 2014

In addition to the increase of time spent, mobile users tend to check their phones more frequently. The average mobile user checks their phone approximately 150 times per day. Mostly users check messages (23 times/day) and voice calls (22 times/day). Mobile users check time on their devices 18 times per day. Music and gaming are checked 13 and 12 times per day respectively (Mekeer, 2013. 52).

## 2.2 Market structure

Digital advertising market can be divided into two main groups: Demand and Supply. A schematic structure of digital media market is shown in Figure 7.



**Figure 7** Digital Media Market: Main Players

The demand side consists of parties willing to place their advertisements on the Internet. These parties are usually advertisers and media agencies. Advertisers' aim is to raise awareness of the brand and increase sales. Often advertisers are the brand owners like Heinz, Nike, Mitsubishi, etc. Even though advertisers can buy media, they have an option to use media agencies to assist with research on media trends, consumer behavior and price negotiations. Media agencies take the responsibilities of choosing publishers, digital media buying methods and media types that will fit marketing campaigns of the brand owner.

In most cases, the advertiser decides where ads should be placed and the view count to achieve the planned level of brand awareness. Then the agency searches for the best publishers to meet the requirements of the advertiser. Traditional way of finding the right publishers is to connect to the network; negotiate buying types (CPM, CPA), prices, budgets and time frames. Another way of placing ads involves using ad exchanges. Ad exchanges enable advertisers to get better targeting possibilities and potential cost savings.

Today main media agencies have their own DSP aimed to help advertisers to get more information about the audience, plan media placement effectively and monitor performance results. Using agencies with their own trade desks may be beneficial for the advertiser because of the better targeting due to a more detailed research and campaign analysis. Moreover, since the trade desk is a part of agency's holding, there is more clarity on transactions. Cost of the trade desk is built on labor fees, technologies and data analysis fees.

Supply side consists of parties willing to sell their media inventory, these are publishers and SSPs. Publisher is any media owner who has an inventory (place on the web page) to be sold. To guarantee no inventory remains, publishers use SSP. When user enters the web page with a certain ad slot (inventory to be sold) the browser generates an ad code. Based on the ad code SSP creates a tag that pulls all available information from the browser and sends it to the ad exchange. That is when advertisers get information about the user (through the DSP).

For example, Heinz wants 1million bottles of barbecue sauce to be sold in Europe during the summer season. Marketing department has created a campaign targeting 30 to 40 year old men who usually have barbecue in the summer. Heinz media agency estimates 10 million TG M30-40 should

see advertisement of Heinz barbecue sauce during the summer to guarantee Heinz will sell 1 M bottles of the sauce. In this example Heinz is the brand owner and advertiser, Google is the publisher (it has its own media inventory as well as its partners' media inventory), Tweeter and BBC are publishers within Google network.

The World Cup takes place this summer. Several sport web sites have online translations of all games. Heinz media agency reviews the campaign and suggests to place ads on Google network, football related web pages since TG M30-40 visit these pages regularly. Attention should be paid to mobile advertising because it is not a holiday season yet and many TG M30-40 will watch games from their portable devices. Goggle places Heinz ads on BBC sports webpages.

Placing ads on sport websites alone is not enough for Heinz's to reach its target. But the idea of placing ads on football related websites has proven to perform well. Media agency decides to add Heinz ads to Google search on Twitter tags. As a result every time user is looking for "football championship" tweets, he will see Heinz ad saying "Football. Friends. Barbecue .Heinz".

What's really happening is that every time somebody goes on BBC news to check the results of the match, SSP of BBC sends the signal to ad exchange. The signal contains the number of ad slots available on BBC web page. Heinz's agency's DSP receives the tag that contains information concerning the user (TG M 30-40, location, any other information). Heinz decides how much it is willing to pay for this user (audience) and places a bid. As a result the user (TG M 30-40) will see Heinz BBQ sauce advertisement.

## 2.3 Media buying types

Digital inventory can be classified into three main categories: premium, secondary premium and wholesale (remnant). Premium inventory is more visible to the consumer due to it having a fixed location on a premium spot (e.g. top right corner of a publisher's web page). It is purchased for an agreed time; the price is usually higher comparing to second premium and remnant inventory categories.

Secondary premium inventory also has a high chance to be noticed by consumers, however the location on where the ad is placed is unknown. Secondary premium inventory is acquired by advertisers via premium ad exchanges. Premium ad exchange finds the best piece of inventory for the ad within the publisher's network.

Remnant inventory is the web space left after premium and secondary premium categories have been sold out. This inventory has the lowest chances to be seen by consumer but the price for the wholesale inventory low. Remnant inventory is bought by using RTB (real time bidding) system. Unlike premium buying, CPC (cost-per-click) buying method is used for remnant inventory acquisition to ensure advertisers pay only when the ad is seen by consumer.

There are two common ways of buying digital media inventory: paying premium or using programmatic ad buying. Premium buying is a traditional way of purchasing of media inventory: it costs higher compared to the programmatic ad buying. Premium buying method has several benefits including a high accuracy of ad placement, guaranteed delivery and content integration. Programmatic buying is a new way media procurement that has various target options and possibilities to reduce the cost of media. RTB is an online auction that happens within few seconds while the web page is loading.

Google AdWords is an online platform developed by Google. Placing ads with Google AdWords means the ad will appear on one of Google network

web pages. It covers Google and partner sites. Google Network is distributed in two groups: Search and Display Networks. Search network covers all Google search results pages including other Google pages like Google maps, Google shopping, Images, etc. Ads are matched to the search results that appear after the user has placed keywords. Display network includes Google web sites like YouTube, Gmail, Blogger and numerous partner web pages and mobile apps.

Google uses a formula called Ad Rank to estimate ad positions based on CPC (cost per click) bid and Quality Score. Quality Score is the number calculated based on several criteria. It is applied to make sure that the user gets only good quality and relevant ads. Quality score is calculated every time somebody places keywords that activates the ad based on the following parameters:

**“Your ad's expected CTR:** This is based in part on your ad's historical clicks and impressions (excluding factors such as ad position, extensions, and other formats that may have affected the visibility of an ad that someone previously clicked)

**Your display URL's past CTR:** The historical clicks and impressions your display URL has received

**The quality of your landing page:** How relevant, transparent, and easy-to-navigate your page is

**Your ad/search relevance:** How relevant your ad text is to what a person searches for

**Geographic performance:** How successful your account has been in the regions you're targeting

Your targeted devices: How well your ads have been performing on different types of devices, like desktops/laptops, mobile devices, and tablets”

(Check and understand Quality Score - AdWords Help, 2014).

Quality Score is the formula that shows how relative the ad is for the keywords. In other words, the better experience users will get after they have been navigated to the landing page of the company, the higher the Quality Score.

After all parameters mentioned above are analyzed, Ad Rank calculates a number from 0 to 10 and rank ads where 10 are the highest. Ad Rank is calculated as a product of CPC and Quality score.

For example, a user searches for chocolate sprinkles on Google. This user has navigated the Web before, Google knows the user is 30 year old female with 2 kids, she is located in The Netherlands, etc. Google shows different sites and pictures in the search results as well as ads on the right hand side. Figure 8 shows what the search engine display looks like for this user, sponsored advertisements are marked in red.

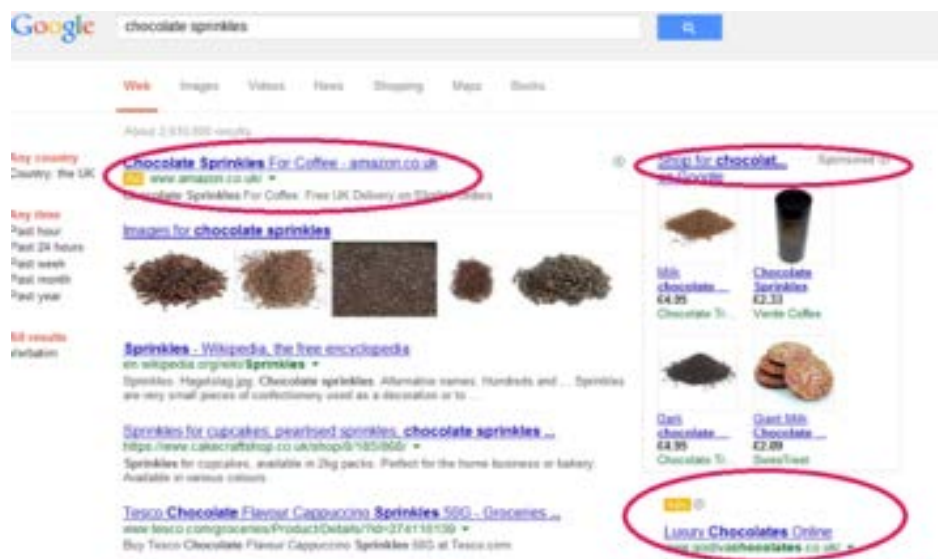


Figure 8 Google Search Sponsored Ads "Chocolate Sprinkles", 2014



When the user clicks on the search button, advertisers get information about the user's age, gender, location, income, etc. This user is in a target group for many brands like De Ruijter, Venz (both Heinz domestic Brands), Albert Hein chocolate sprinkles, Ferrara and Amazon.com (online retailer). When advertisers get user's information they start to bid. Table 1 shows biddings for each advertiser, Quality Scores calculate by Google and their Ad Ranks.

**Table 1** Bidding CPCs, Quality Score and Ad Rank "Chocolate Sprinkles"

Advertiser	Bid in EUR (CPC)	Quality Score	Ad Rank
De Ruijter	0.7	9	6.3
Albert Hein	0.75	7	5.25
Amazon	0.7	8	5.6
Venz	0.65	7	4.55
Ferrara	0.78	5	3.9

De Ruijter is one of Heinz brands in The Netherlands that specializes on chocolate sprinkles. Since the ad and the landing page are relevant for the key words, De Ruijter gets a high quality score. Even though the company did not place the highest bid, it will get the best ad slot. Amazon is a well-known worldwide online retailer with a rich online history, which affects the quality score no matter how low was the bid of Amazon.

Google uses second price auction model to distribute ad placements between advertisers: each ad has a bid (max CPC)  $b_i$  and a quality score  $q_i$ . All ads are ranked in decreasing order depending on the Ad Rank ( $r_i$

$=b_i \cdot q_i$ ), where  $b$  stands for the bid and  $q$  stands for Quality Score number. The actual CPC that the advertiser will pay Google is the Ad Rank number from the second best-ranked advertiser divided by the Quality score of the leading advertiser ( $p_i = b_{(i+1)} / q_i$ ). If all ads have the exact same quality score, everyone pays the second price and the advertiser with the lowest Ad Rank pays the maximum bid.

Advertiser with the best bid and a high quality score number gets the best position, which is normally on the top of the search results. It means Amazon will pay a product of Heinz's CPC and Heinz Quality Score divided by Amazon's Quality Score. The bidder with the lowest Ad Rank pays the highest CPC. Table 2 shows results of the bidding and actual CPC paid by advertisers.

**Table 2** Bidding results "Chocolate sprinkles"\*

Advertiser	Bid in EUR (CPC)	Quality Score	Ad Rank	Actual CPC paid
De Ruijter	0.7	9	6.3	0.622
Amazon	0.7	8	5.6	0.656
Albert Hein	0.75	7	5.25	0.650
Venz	0.65	7	4.55	0.557
Ferrara	0.78	5	3.9	0.700

\*All numbers in the example above were illustrative and do not correspond with the real figures.

## 2.4 Buying Methods

Depending on the preferred location of the ad, different media buying methods can be chosen: RON, ROC, ROS, CPM, CPC, CAP and CPI. RON (Run on Network) enable advertisers to post ads on websites within one network without the right to choose a specific web site. Mail Ru is an internet company that became a major player in RuNet (Russian speaking Internet sector). There are many web sites within Mail Ru group, every time an advertiser places ads within the network using RON method, ads can appear on any of the network websites. RON buying method is considered to be the cheapest way of placing digital media.

ROC (Run on Category or Run on channel) enables advertisers to post online advertisements on a selected category of websites within a publisher's network. For example, Heinz can select "Food" category within the Mail Ru network. Heinz ad will appear on food related web sites. When using the ROC strategy, advertiser cannot choose on which sites ads will appear. In some cases the ad will be placed on the web site with a negative attitude to food e.g. "Food that kills you" web page.

Applying different buying methods allows advertisers to optimize media budget and monitor ad performance. CPM (cost per mille) method is based on paying for thousands of views. In online advertising, the view is called an impression. CPM is considered to be the most efficient media buying method for purchasing of premium media, inventory from well-recognized publishers and media aimed to increase brand awareness. The idea behind CPC (Cost per Click) is that advertiser pays to publish only if the user clicked on the advertisement. CPC is commonly used for remnant inventory acquisition: it guarantees that the advertiser will not spend money unless there is an engagement with the user. The cost can either be a flat

rate agreed between parties or calculated during RTB. CPA (Cost per Acquisition) is similar to CPC: the advertiser pays only for a definite user's action, it can be a purchase, filled in online form, etc. CPI (Cost per Impression) model applies when the advertiser has to pay whenever an ad appears on the agreed web site.

## 2.4 Performance Measurement Metrics

### 2.4.1 CTR Click Through Rate

$$CTR = \text{Total number of clicks} \div \text{Total number of impressions}$$

CTR (Click Through Rate) is a ratio between total numbers of clicks and total number of impressions. CTR indicates how many users were attracted by the ad. From media buying point of view CTR is the element that has the biggest impact on the cost of media. As mentioned above, Google uses CTR to calculate Quality Score that influence ad location and ad price. There is no standard value of a good CTR, most of the ads on Google Ad Word have CTR of 2%. Everything above 2% is considered to be a good CTR.

### 2.4.2 CR Conversion Rate

$$CR = \text{Total number of conversions} \div \text{Total number of clicks}$$

Conversion is an action made by user, it can be a download, purchase, "like", etc. Conversion rate is the percentage of users who have made the action. Conversion rate number varies depending on numerous factors such as media types, media metrics, industry, etc. Professional services and media publishing are the industries with the highest CR of 10%, manufacturing and packaged goods have 5% of CR, retail and non-profit businesses have the lowest CR of 3% and 2% respectively (Drell, 2013).

### 2.4.3 COCon Cost per Conversion

$$CPCon = \text{Total cost} \div \text{Total number of conversion}$$

Cost per conversion indicates the effectiveness of ad performance by showing the relation between money paid for an ad and number of user who made the desired action (click, “like”, purchase, etc.). CPC on indicates the cost of the actual customer during the campaign.

#### 2.4.4 ECPM & eCPC

$eCPC = \text{Revenue} \div \text{Total number of clicks}$

$eCPM = \text{Revenue} \div \text{Total number of impressions}$

Effective Cost per Mille (eCPM) is the advertising revenue generated per 1000 impressions. ECPM is used to monitor how well the users respond to the ads. Ideally, the higher is eCPM, the more money advertiser earns. ECPM should be used together with other metrics: if eCPM is the only technique used for ad performance measurement, it would lead to misunderstandings that can result to serious consequences. For example, Heinz earned 300 EUR for 1000 views with publisher A and 2500 EUR for 10000 views with publisher B. ECPM (A) is 3 EUR and eCPM (B) is 2.5 EUR. Based on eCPCs only Heinz is earning more with publisher A, which is false. Effective Cost per Click (eCPC) is the advertising revenue earned per each click. Effective campaigns have higher eCPC comparing to CPC.

#### 2.4.5 Customer Acquisition Cost (CAC) & Customer Lifetime Value (CLV)

$CAC = \text{Total cost} \div \text{Total number of customers}$

$CLV = (T \times AOV) \times AGM \times ALT$

*\*T – average monthly transactions; AOV – Average Order Value; ALT- Customer Lifespan (in months); AGM- Average Gross Margin*

Customer Acquisition Cost (CAC) often confused with CPC. The difference is that CPC shows how much money a company is willing to pay for users

to click on the ad. CAC shows how much company is willing to pay for the customer. CAC is the ratio between all media costs related to customer acquisition (research, specials offers exchanged to user's data) and the number of customers within certain time period. Time is an important factor while investing in the customer, CLV (Customer Lifetime Value) is the factor that reflects customer's behavior over the time. CLV includes money that customer is willing to spend for advertiser's items or services, the frequency of customer's purchases and the lifespan of the customer. CAC number should never get bigger than CLV in order to keep the campaign profitable.

#### 2.4.6 Average Revenue per User ARPU

$$ARPU = \text{Total revenue} \div \text{Total number of users}$$

Average Revenue per User shows the profitability of each user that has been reached by the advertiser. ARPU is calculated as the total revenue divided by the number of active users.

#### 2.4.7 Churn Rate

Subscriber Churn is a percentage of subscribers the advertiser loses every month (other time period). Churn rate indicated the number of users that have lost their interest in the brand. Churn rate is considered acceptable if the value is 5-7 % annually and 0.7% monthly (Rogers, 2014).

### 2.5 Online media types

#### 2.5.1 Web Banner

The concept of web banners originates from traditional media-printed banners. The goal is to attract consumer by placing an eye-catching image with a simple text. Web banners contain a hyperlink that leads the user to a landing page (normally home web page). There are three main types of

web banners: floating ads, pop-ups & pop-unders and expanding ads.

Floating ads move on the screen above the content. User may click on the ad to navigate to the landing page. Pop-up banners appear on the top of the screen while pop-unders open a new window behind the current web page; they cannot be seen before the current window is closed. Expanding ads change their dimensions upon certain conditions, usually it is the time user spends on web page. Expanding ad disappears when the user clicks on it.

### 2.5.2 Text Ad

Text ads are similar to traditional printed advertisements, however the format is limited: the ad should contain a headline, a display URL that leads to the home page and a description (two lines). Text ads are considered a strong power in creating awareness of the brand

### 2.5.3 Streaming Video

There are three types of video ads that are mostly used: pre-roll, mid-roll and post-roll. Pre-roll is a promotion video that plays before the video that user has selected. Mid-roll and post-roll plays during the video or after.

### 2.5.4 Email Ad

Email ad is an email sent to customers' email address either as a plain text or piece of content on a regular basis. Email advertising is different from SPAM (Self Propelled Advertising Material): SPAM sent to anonymous email address while email ads sent after the user has agreed to receive updates from the advertiser.

### 2.5.5 Social Media Advertising

Social media advertising is considered to be one of the most powerful drivers of online advertising. Buying ads on social networks is similar to inventory acquisition from other networks. The benefit of buying from social media networks is the advanced targeting. Social network users are more

willing to share data: companies like Facebook are aware of the user's interests, travelling destinations, preferences in movies, clothing, food, etc.

Currently Facebook is the biggest social online service with more than 1.2 billion active users. Before placing ads on Facebook, media buyers should be clear on their campaign objectives because they determine media buying methods. There are two media buying strategies offered by FB (Facebook): CPM and CPC (or CPA). CPM can be an effective media buying method either if the advertiser pays premium or there is a certainty the ad will be placed in a privileged spot and noticed by users. Advertisers who aim to reduce their media costs on Facebook tend to choose CPC media buying method. By choosing CPC advertiser insures the user has seen the ad. There are two major cons of CPC Facebook advertisement: CPC costs more than CPM and advertiser cannot control the spot of the ad. Pros of CPA is a possibility of precise audience targeting.

When creating a campaign on Facebook, several types of ads should be experimented to analyze an organic engagement. Facebook has three main types of advertisements: mobile newsfeed ad, desktop news feed and right column ad (Figures 9-11).



**Figure 9** Mobile Newsfeed Ad, Facebook





**Figure 10** Desktop Newsfeed Ad, Facebook



**Figure 11** Right Column Ad, Facebook

For spend optimization FB advises to analyze objectives of the campaign and then choose the right type of the ad. There is an analytical tool that enables marketers and media buyers to analyze ad performance. After ads have been monitored, FB recommends advertisers to promote the most effective ads.

For example, Heinz has decided to promote its new tomato ketchup on Facebook. A bottle of the new ketchup costs 5 EUR where 2 EUR from each

sold bottle are spent on marketing. Heinz has chosen to use CPC method to promote it on FB. CPC bid is 0.5 EUR \*.

10 users clicked on Heinz ad and 7 went to Heinz landing page (home page) ready to acquire the product, only 4 made the purchase. As a result Heinz has earned 15 EUR (20 EUR from sales minus 0.5 EUR\*10 clicks for marketing spend). Media buying budget was planned to be 8 EUR (2 EUR for 4 bottles sold), while real marketing spend was 5 EUR: Heinz spent 3 EUR less than planned (Table 3).

**Table 3** Heinz FB example

Price per bottle €	5.00
Marketing spend allowed (€ per each bottle sold)	2.00
CPC bid €	0.50
N of clicks	10
Lead rate	70%
Conversion rate	40%
Marketing budget total €	8.00
Marketing spend total €	5.00

In the example above pre-conversion rate was 70% which considered to be high. It shows that 0.5 EUR CPC was an optimal price for this campaign: 70 % of users were attracted and convinced to purchase the item. Conversion rate was only 40 % which is rather low, it indicates the negative experience consumers had while visiting the landing page. In order to increase CR, landing page should be modified.

\*All numbers in the example above were illustrative and do not correspond with the real prices.

### 2.5.6 Game advertising

There are four in-game advertising types that depend on the depth of “diving into the game”. First ad type is called “around game environment”: usually pre-roll or post-roll, banner ads that go together with the game. For example, it can be a banner that pops up while the user is playing. In game environmental ads are the next level of game advertisement where ads appear within the game, but users cannot interact with these ads. It can be Heinz OOH banner on the stadium inside the online football game. Immersive ads involve interaction with user. For example, in a car racing game, the user can choose between branded cars. Advergaming are the games designed around the brand and aimed to promote it. There can be an online paintball game, where players have to squeeze a bottle of Heinz tomato ketchup instead of using a paintball gun to tag their opponents.

### 2.5.7 Mobile advertising

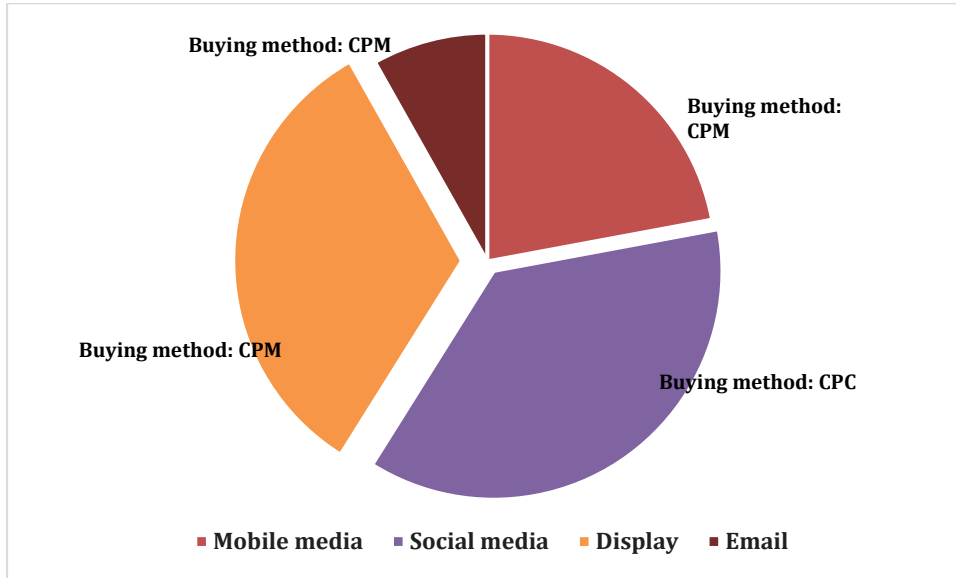
Mobile advertising is a rapidly growing market that gives advertisers possibilities to directly connect with the users. There are several forms of mobile advertising including mobile display, video, audio, branded apps and location based ads. Mobile display ads are similar to PC display ads: banners, text ads and rich media that may appear either before or in between the mobile page while loading. Mobile video may be either streamed or downloaded. There are few forms of mobile video ads: pre-roll, mid-roll, post-roll. Audio ads can run either before or after voice messages, voice mails and other audio media. The biggest share of mobile audio ads goes to mobile audio apps like Spotify. Moreover, mobile audio ad can be installed in software of the device.

## 3 Case study: Heinz

### 3.1 Current procurement state

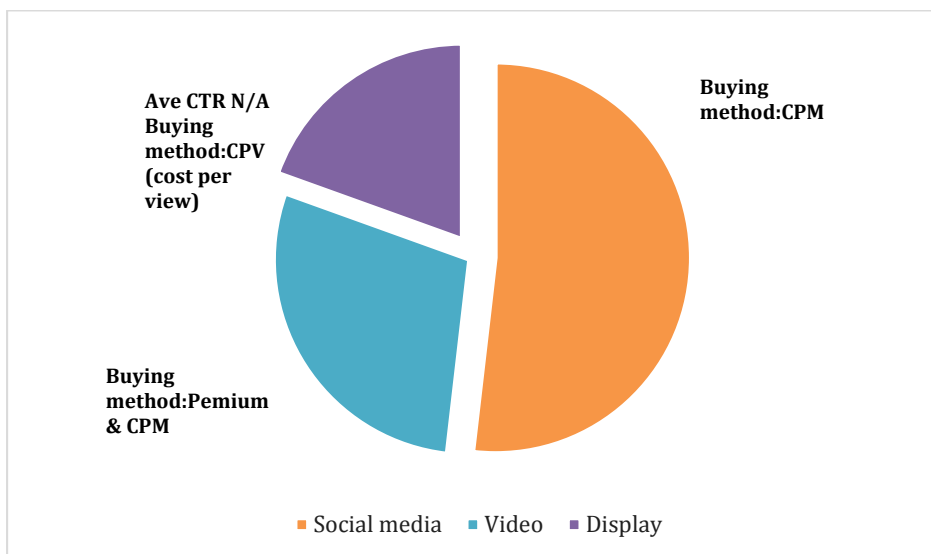
The procurement of Heinz has been assigned with developing and implementing cost saving strategies. The current cost reduction approaches used by Heinz global procurement included review of supplier performance together with the reduction of supplier base, focusing on development of supplier relationship management. In addition to this Heinz procurement applied a contract management method aimed to increase payment terms to free up cash. Moreover, Heinz global procurement has set up an E-sourcing team that has the responsibilities for running online auctions.

Russia and United Kingdom are in the top10 list of the countries in which Heinz spends a large sum of money on media. The analysis of their media buying activities is aimed to introduce the challenges Heinz faces today. According to the research on Heinz current media buying state United Kingdom spends major part of its digital budget on social media, most of the ads are bought on Facebook newsfeed. Even though the main buying method is CPC, a big part of Facebook ads are bought as premium. An optimal CTR for the Facebook newsfeed ads varies from 2, 03% to 2, 09 %. Heinz CTR on Facebook is below optimal, which means major share of money invested in digital media do not perform well even though a big part of this money is paid as premium. Display ads have second big share of the digital media budget share in UK with CTR slightly below the market value and ROS, CPM as the main media buying method (Figure 12).



**Figure 12** Digital Media Share Heinz UK, 2014

In Russia nearly half of the digital media budget goes to social media where half of the inventory belongs to Mail Ru network, with a focus on social network “Odnoklassniki” and social network “Vkontakte”. Video advertisement follows social media spends share of Russian digital media budget, two third of all videos are placed on YouTube (Figure 13).



**Figure 13** Digital Media Share Heinz Russia, 2014

After all the procurement activities within Marketing and Sales category were analyzed on a global scale, it has been decided to run a global pitch aimed to choose one global partner in media buying and planning. During the pitch it was discovered that the share of media budget for digital media was relatively low. An average spent for digital media within FMCG market varies from 15 % to 25%. By the end of 2013 Heinz digital media spent was lower the market value with no future plans of increasing the share of digital media budget. Same year Heinz competitors were actively developing their digital media strategies, investing in online advertising: Unilever now spends 20% of its media budget in digital platforms, Mondelez International has signed the deal with Google and spent the fifths part of its media budget on digital. In addition to this, Flora invests 10 million British pounds in mobile advertising and P&G is planning to spend 70-75% of its digital budget focusing on programmatic buying.

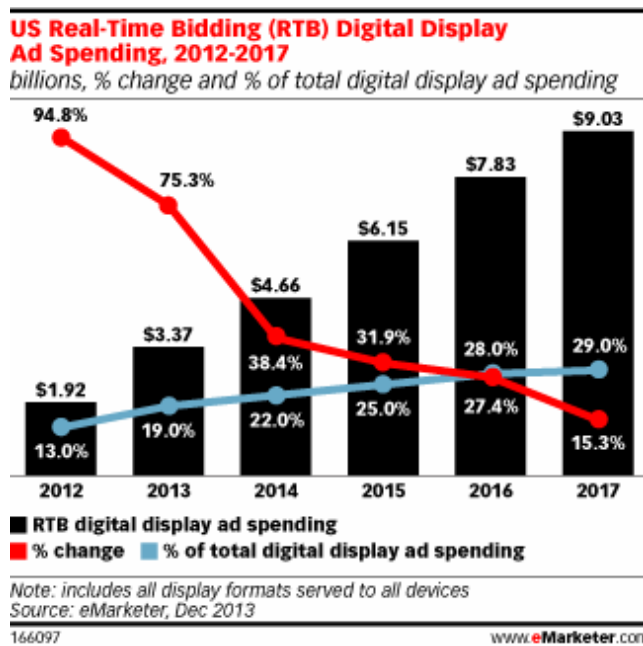
## 3.2 Suggestions

In light of this new information there is now a clear need for Heinz to increase its presence in the digital media market. After the analysis of the current digital media market trends, it can be recommended for Heinz to focus on programmatic media buying, develop its media performance evaluation techniques and invest more in mobile media advertisement.

### 3.2.1 Real Time Bidding

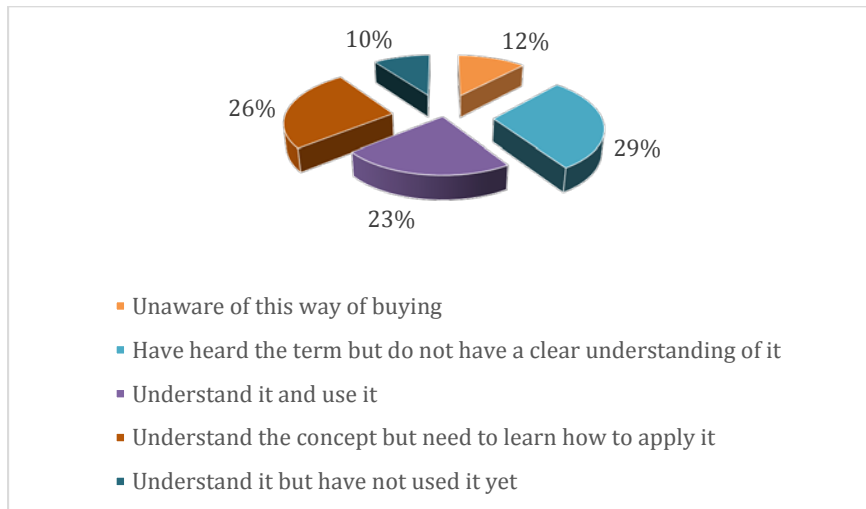
The global enthusiasm generated by programmatic digital buying (a technology driven digital media procurement method) cannot be overlooked. Neither can the growing popularity of RTB. The growth of RTB display ads

has gone from 1, 92 billion USD in 2012 to 4, 66 billion USD today, this number is expected to double by 2017 and exceed 9 billion USD (Figure 14).



**Figure 14** US RTB Digital Display Ad Spending 2012-2017, EMarketer Programmatic Buying Roundup, 2014

Even though popularity of RTB continues to grow, only a minor part of marketers are familiar with this media buying technique and actively use it, while the rest have heard the term and understand the principles, but have never tried to apply in real life campaigns (Figure 15).



**Figure 15** Understanding and Applying of Programmatic buying among US marketers, March 2014, EMarketer Programmatic Buying Roundup, 2014

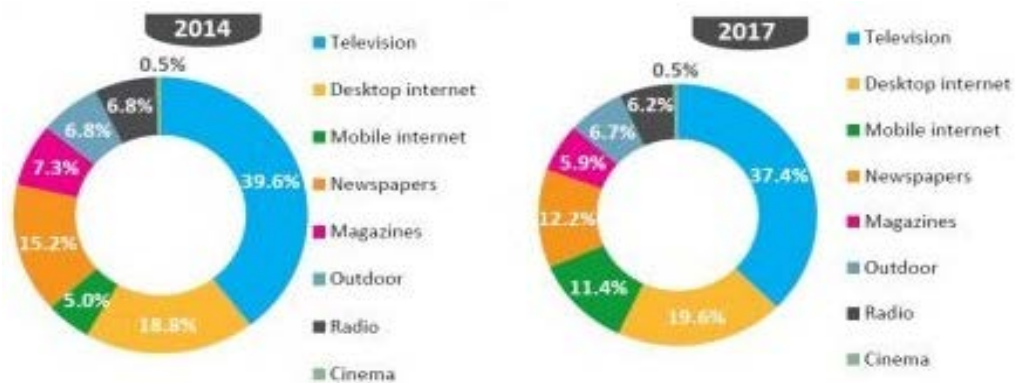
During the analysis of Heinz current media buying activities it was discovered the company pays a noticeable amount of money as premium as well as chooses CPM media buying method. Heinz is suggested to focus on RTB. This media buying method is considered to be beneficial for the company because RTB enables an advertiser to buy the audience instead of clicks or impressions. Another important reason is that RTB saves media money: as described in example with Google AdWords, few efficient media strategies will lead to the reduction of the bid company has to pay during RTB.

### 3.2.2 Mobile Advertising

Mobile advertising is considered to be one of the drivers of digital media market today. It has advanced targeting possibilities that enable advertisers to send the message at the right time and to the right location. Moreover, the mobile phone is more private than the desktop that increases the accuracy of ad targeting. As mentioned above, nowadays market of mobile devices grows and develops rapidly. Mobile customers tend to use portable

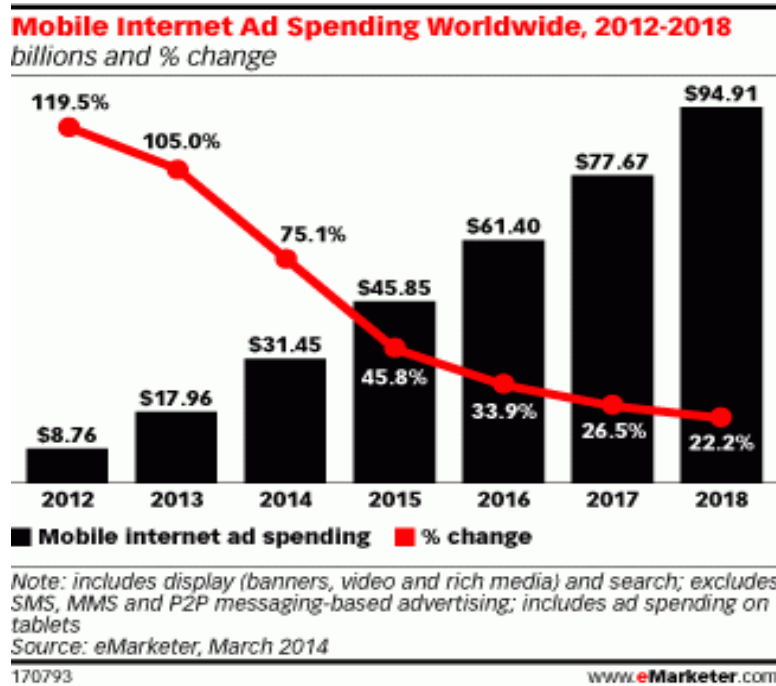


device to go online, they spend more time on their portable devices and check their phones more than a hundred times per day on average. That leads to the growing share of mobile advertisement within the digital market on a global scale. If today the global share of mobile ad spending is 5%, in two years it is predicted to exceed 11.4% (Figure 16).



**Figure 16** Share of Global Ad Spend, Digital Strategy Consulting, 2014

Even though today mobile advertising is emerging rapidly, the growth is predicted to slow down in the future: if in 2012 mobile market exploded by almost 120% of the growth, in 2018 the expansion will reach 22% (Figure 17).



**Figure 17** Mobile Internet Ad Spending Worldwide, 2012-2018, EMarketer Roundup: Global Media Trends, 2014

Heinz mobile media buying is still in its infant stage: most of the countries have a small spend share of mobile advertising while others do not have any spends at all. To hit the targets in mobile advertising quickly, Heinz has to apply the most efficient media buying strategy that combines a high CTR, a good level of engagement, relatively low price together with the possibilities to monitor ad performance. Buying social media ads on mobile devices can be a good example of the media buying strategy mentioned above. By the end of 2013, 71% of surveyed used their mobile phones to access the social networks. In addition to this, mobile users tend to assess social network more frequently comparing to other applications on their devices.

Investing in development of mobile media buying strategies can be beneficial for Heinz due to several reasons: advertising on mobile has the advantage of a precise targeting accuracy, usually mobile ads have higher CTRs and conversion rates while historically mobile ad costs were lower

comparing to the desktop. Challenges related to mobile media buying consist of high diversity of devices, privacy issues and unpredicted cost behavior.

### 3.2.3 Media performance evaluation

In the end of Heinz Global Media pitch, the company has decided to proceed with two global media buying and planning suppliers. It is important to focus on the development of the supplier relationship. Assessment of supplier performance is one of the key factors in supplier relationship management, especially at the post tender stage. To optimize the analysis of digital media performance on a global scale, the evaluation document should contain a limited range of options and standardized terminology. During the pitch Heinz has developed media performance evaluation template to analyze its media buying methods and strategies across the globe. The studies have shown the template still has room for development: there was no clarity on definitions and standard names for digital media types and buying methods. Moreover, the template had a lack of performance measurement metrics. As a part of the suggestion to Heinz, the existing media evaluation template created by Heinz during Heinz global media pitch, has been upgraded. The objective of the template modification was to optimize digital media performance assessment.

The template contains of three major parts: general information, media buying and buying type and the evaluation of media performance. General information contains data about sales house, media network together with the information regarding media spend (gross and net), agency fees and possible discounts (Figure 18).

Sales House	Site /network	Rate card Media Cost	Discount	Gross Media Cost	Net Media Cost (excl. agency comm.)
Youtube	Google	18000	4%	18800	17860

**Figure 18** Media Evaluation Template, General Information and Media Costs

To optimize the analyses, the template has the limited range of answers that can be chosen when filled in. Figure 19 shows the section of the updated media performance evaluation template, “Media type and buying method” segment. As it seen when the template user clicks on the selection “Ad Type”, a drop down menu will appear. The menu contains the range of ad types the user can choose from; each category in the template has a drop down menu.

Digital media type	AD format/size	AD type	Buying method (CPM/CPC/CPA/FIX/FREE)	Booked Impressions	Actual Delivered Impressions	Booked Clicks	Actual Clicks	Number of Conversions
desktop	FB.Right column	Domain Ad	CPC	N/A	17000000	19944	21934	699
		<ul style="list-style-type: none"> <li>Domain Ad</li> <li>Page Post Lin</li> <li>Multi-produc</li> <li>Page Like</li> <li>Page Post Ph</li> <li>Page Post Vid</li> <li>Page Post Tex</li> <li>Mobile App</li> </ul>						

**Figure 19** Media Evaluation Template, Media Type and Buying Method

After all required information has been filled in, the template automatically calculates the main digital media quality evaluation metrics. Click Through Rate, Conversion rate, CPC, CPM and e CPC and e CPM methods of media performance analysis were chosen due to the ease of use and high efficiency of media evaluation (Figure 20). The template can be updated with information regarding the market average values for the quality metrics to simplify the analysis.

Performance Evaluation						
CTR	Conversion rate	CPC	CPM	CAC	eCPC	eCPM
0,13 %	3,19 %	0,8143	0,0011	25,55	0,1275	0,00016

**Figure 20** Media Evaluation Template, Performance Evaluation

## 4 Conclusion

Heinz target is to become the best and most profitable food company in the world. This goal seems to be very challenging especially in the current state of the world economy. While most companies struggle right now to break even, Heinz plans can only be accomplished if the company thinks a step ahead while developing the more efficient ways of running day- to-day activities.

Developing the sector of digital media is one of the strategic way in which Heinz can accomplish its goal: studies have shown that compared to other companies, Heinz is way behind in this particular field. Digital media technologies offers today nearly unlimited possibilities in delivering the brand message to potential consumers.

Based on the analysis of digital media market trends, where consumers are more likely to use their portable devices and spend more time on social networks, Heinz has been recommended to focus on developing its mobile and social media buying strategies. In order to analyze performance of digital media on global scale, it is important to ensure the information is standardized. For this reason the current media performance template has been upgraded to optimize the supplier performance.

Today Heinz start a new era of media buying together with its two new global media planning partners. Limitation in supplier base for a strategic purchasing category, such as media may make the company dependent on its suppliers. Together with the lack of knowledge on digital media buying it may lead to the situation when Heinz will be suggested to follow media buying strategies that are not beneficial for the company. Due to this, it is necessary that the company has a sufficient amount of knowledge to be able to not only evaluate performance of its supplier and analyze the given suggestions, but also to develop strategic digital media plans by its own. This thesis may provide the foundation needed to assist Heinz to achieve this goal.

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