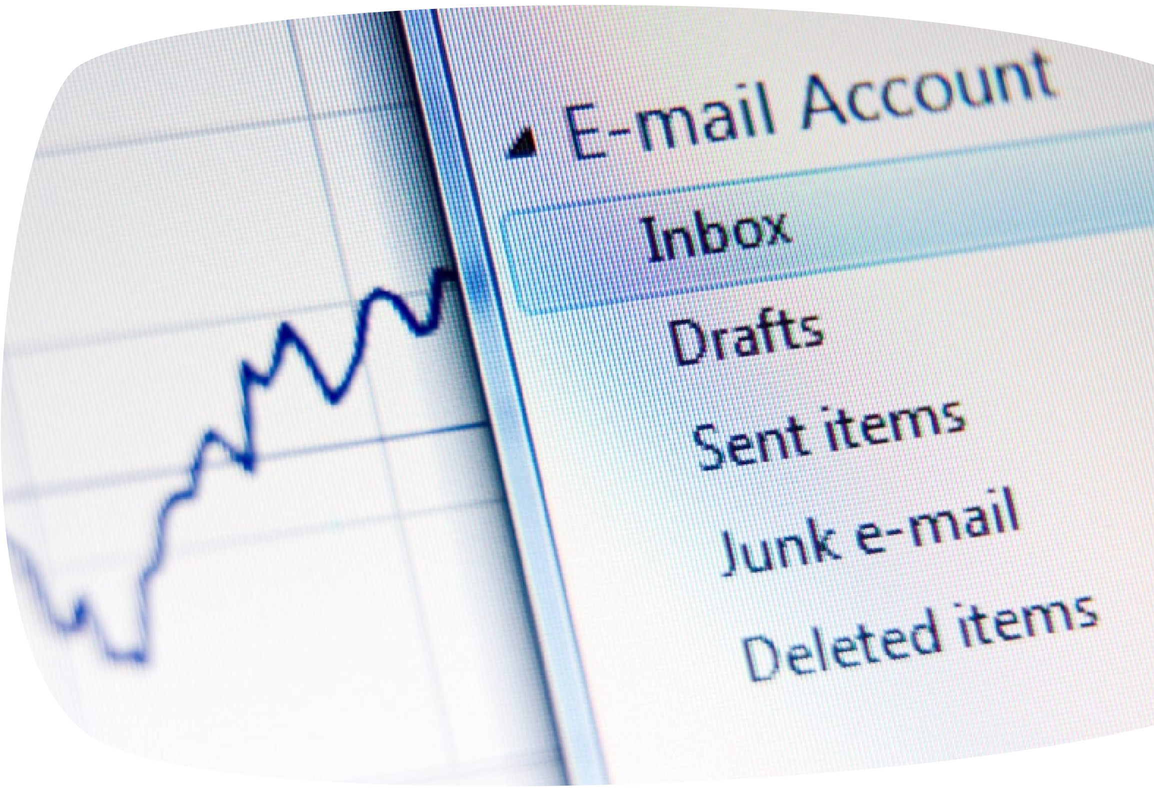
White Paper

Email metrics and measurement



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About this document

Email marketing continues to be hugely successful in building and maintaining profitable customer relationships. This is in no small part due to the rich measurement that is possible for email marketing campaigns.

This document has been written to provide email marketers with guidance as to the metrics that are available, which metrics to use, when to use them and the dangers and pitfalls of numbers.

This white paper is not a glossary of metrics and their definitions, as these vary and for accuracy you should check the definitions of the metrics that are available to you. This document focuses on the bigger questions around the use of metrics such as what metrics are the right ones to use and are they accurate?

The intended audience is hands-on email marketers and marketing managers responsible for email marketing.

About the authors

This document has been published by the legal, data and best practice hub of the Email Marketing Council of The Direct Marketing Association (UK) Ltd.

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Executive summary

It was Einstein who said:
"Not everything that can be counted counts, and not everything that counts can be counted"

This is true when it comes to measurement of email marketing performance. Some metrics may not be appropriate or provide useful insight while other things we would like to measure can't be measured, or can't be measured accurately, such as opens or inbox placement. The DMA Email Tracking Study 2011 found that 22% of consumers may respond to an email of interest by going to the company's website by a different route than clicking the email. Clearly the email did its job but the click metric won't reflect it in these cases.

Knowing the limits of metrics and being able to interpret metrics to drive marketing success is a core skill needed for any email marketer. Also while email broadcast tools provide many metrics some of the key metrics that matter many not be provided with the broadcast reporting suite.

The numbers provide both justification for marketing investment and feedback to the email marketer into what is working, enabling continual improvement.

This white paper aims to improve the understanding of metrics, their purpose, how to use metrics safely, how to pick the right metric and pitfalls to avoid. It reviews metrics rather than analysis. Metrics are KPI measures whereas analysis is the process of mining data to derive customer insight.

1. Why have metrics?

As the saying goes, "if you don't know where you are going any road will get you there". The extension of this is "you have to know where you are before you can plan your route to get there".

Measurement and metrics are the means to:

- Know where we are now
- Judge if we are heading in the right direction
- Understand the speed we are travelling at
- Know how far we have to go
- Predict when we might get there
- Manage diversions when there are unexpected roadworks.

While those are some of the key metrics that closely represent the objective of travelling to a destination, the journey involves more metrics still, the amount of fuel in the car, the engine RPM and temperature. To continue the analogy, more difficult objectives involve more metrics in the journey. Consider a flight to Australia or a journey to the moon as compared with our simple car journey. Aircraft and spacecraft have a lot more measurements than a car.

Some of the metrics in this analogy are primary indicators of overall success while others are secondary but nonetheless important to allow the journey to be completed. Thus some are for operational and diagnostic use and others are the metrics to measure success.

The same can be said of email metrics, the amount of revenue from a campaign is often a primary metric, whereas the open rate is useful to understand how the campaign ran but in itself is not the objective. Critically, it is not the case that an improved open rate leads to improved revenue. Thus the most important metrics are those that are aligned to the business objectives.

Metrics should not just be about reporting for the monthly required board report but about numbers used to allow optimisation of results, to evaluate performance against pre-determined benchmarks identifying improvement opportunities and an early warning system of trouble. It is for good reason that management consultant Peter Drucker once said "if you can't measure you can't manage". There is of course more to management than just metrics but that's a different matter altogether.

2. Picking the right metrics

Managing is simplest with a single one-dimensional metric as too many metrics can be confusing and make decisions hard. The management desire is often to have lots of metrics as it's argued that more gives more insight.

The answer is to use the minimum number of metrics possible and only use more if it is necessary to achieve your goals. The guide to what is necessary is to pick the right metrics for the purpose. The questions to consider are:

- What is the objective that needs to be measured? Is it about cross-sell, acquiring new customers, winning back lapsed customers?
- What metrics best represent this objective?
- Who is going to use this metric?
- How is it going to be used?
- Who will make the measurement?
- How is the measurement going to be made?

The metrics appropriate to give to the CFO to gain investment are not the same to work out how to decide if customers are becoming more engaged or if there is a delivery issue with your campaigns. The CFO metrics should focus on those closely aligned to business goals, revenue and return on investment, while diagnosing deliverability will require looking at metrics such as bounce, complaint and unsubscribe rates.

3. Common metrics

This section is a quick reference to many metrics commonly used. This is not a list of metrics that should be used, the choice should be based according to the guidance in the previous sections. It is also not a complete list as your situation and need may require a derivation of the metrics, such as to break the metrics by domain, sign-up source, customer demographics (such as age, gender, location) and customer segment (such as nursery, active, VIP, lapsing, lapsed).

Financial and conversion metrics

For many and particularly B2C email marketers, financial metrics are the most closely aligned to marketing objectives:

- Value of an email address. Average value over a period such as the customer lifetime or another nominated period, such as a year
- Cost of acquiring an email address, for each different source
- Length of time to recover acquisition costs
- Revenue per email campaign
- Revenue per 1,000 emails
- Revenue for different email types, such as campaign, abandon basket, welcome
- Email revenue per customer per month
- Average order size and number of orders.

In addition to revenue, gross margin and return on investment (ROI) should be used.

In online retail businesses, revenue is relatively easily collected and attributed through use of tracking and web analytics. The simplest model is last click attribution, whereby the last action taken before the purchase is given the full value of the sale. This could be a click from an email or a pay per click (PPC) or search result. Purchases are often the result of many channels, an email can deliver an initial product or solution idea, which later the recipient follows up by going to a search engine to get to the website, rather than fishing through their inbox for the original email. So in this case email played an important role in the sale but last click attribution puts the value to search. More complex attribution modelling may be used to better reflect the whole customer journey.

In offline, mix or multi-channel online businesses control groups are used to determine revenue. A random control cell that has no marketing applied, that is not mailed, is used to extrapolate the impact of marketing.

While financial metrics are less used for B2B due to sales cycles being much longer and attribution more complex, conversion metrics which reflect the customer journey may be used to measure the nurturing process:

- Download of a white paper
- Event registration
- Demo request
- Call-back request
- Webinar booking.

Customer database (CRM) metrics

- Number of email-permissioned customers
- Percentage of all customers with email permission
- Monthly count and percentage of new email addresses
- Monthly count and percentage of email addresses unsubscribed

- Growth of email permission (new subscribes minus unsubscribes, bounced out etc)
- Number of unique customers opened/clicked/converted in last month/quarter
- Average and standard deviation of period since last open/click/conversion.

Campaign and engagement metrics

Many of the following metrics are normally calculated at the campaign level rather than over a period of time or at the customer level:

- Open rate (total and unique)
- Click (total and unique)
- Conversion rate
- Unsubscribe rate
- Shares to social
- Forward to a friend.

Deliverability

- Bounce rate
- Spam complaints
- Spam trap hits
- Inbox/Junk/Missing placement rates, based on seed address placement.

More information about deliverability is available in the DMA Whitepaper on deliverability.

Advances in technology have allowed newer engagement metrics to appear:

- Deletions without reading
- Time spent reading before deletion
- Device used to read the email
- Forward to a friend using an email client forward feature
- Emails printed.

Compound metrics

Compound metrics are those calculated from other metrics to give a customer score. This is most often used in lead nurturing for B2B sales, whereby when leads reach a certain score additional activity is taken, such as an outbound phone call. However, it does have application in B2C whereby you can target for example just five star customers.

The table below gives an example:

Metric	Score
Open	+1
Click	+5
White paper download	+10
Email forward	+5

Beyond email metrics

As the digital world continues to grow and increase in complexity, the metrics that help you to understand the impact of your email campaigns goes beyond the metrics in your email reporting suite.

Increasingly, tracking beyond the email click to understand the wider value of email must be considered. This includes matching data from web reporting tools and social media. For example are your customers tweeting and talking about your brand on Facebook after getting an email?

4. Metric deception

Before using any metrics, look behind them and understand their derivation and definition. What are the real world things that impact the metric? Taking a number at face value can lead to deception, they are like any tool; you need to know how to use the tool and use it for the intended purpose. This section explores some of the issues with metrics.

Metrics aim to reduce the complexity of the real world into the simplicity of a number. Simplification means throwing away data. An average, might be hiding information. If three cars pass me by and the average speed was 30mph I might decide that motorists are sticking to the speed limit. However that same average could reflect three cars travelling, 25mph, 30mph and 35mph or one at 10mph, 2 at 40mph, or 3 at 30mph. The maximum is important here and in other cases the spread might be relevant.

Good metrics get their simplicity by reflecting the key driving factors in the real world which are of importance to their purpose, while masking unimportant detail. Using a graph rather than table of values will often give much better insight.

Even when an average based metric gives an acceptable value, review the data behind the average. A poor open rate and problems with Gmail could be masked by a great open rate with Yahoo. You might be missing some key insight that on your "OK" conversion rate, the male conversion rate was stellar and the average dragged down by females.

Campaign click rates vary from 0.5% to over 40% depending on type of campaign, data source, offer, industry and so on. So while you may be better than an industry campaign average benchmark unique click rate average of 8%[1] it isn't necessarily useful or sensible to compare to such a generalised average.

Be prepared to question numbers and have a sense of reasonable, cross reference and use estimation to check your numbers are telling the truth. After all, if your car speedo said you were travelling at 180mph you'd probably question it. So question numbers that look too good and not just those that look poor.

Apples and pears

It's common sense not to compare apples and pears, however, be aware also of potential differences in definitions for what sounds to be the same metric. Just because it has the same name doesn't mean it's the same metric. Different companies use different definitions.

The open and click rate might be defined as percentage of sent emails, or percentage of delivered emails. Are the rates measures of totals or uniques? Such that if someone clicks twice on an email does that count as one or two clicks towards click rate. These are commonly more fully termed unique click rate and total (or gross) click rate respectively.

Open rate measurement relies on linked images being downloaded. Open rate is thus normally an understatement of the number of opens. Some companies improve open rate accuracy by adding to the open count when someone clicks an email but has not triggered open tracking. This is fine unless you start comparing an open rate using inferred opens versus that without.

Purity

Is your metric measuring just what you want?

Click rates normally include all clickable links in the email. So what you might think was a good email could be because a lot of people clicked the show in browser and unsubscribe links. If your objective is around a particular call to action, then focus on the clicks for that call to action and not clicks for all the email furniture.

Post-click tracking is a very valuable and underused metric for tracking conversion and revenue beyond the email click, a metric close to most marketers' objective. Within the email marketing solution most of these work by attributing any conversion that occurs within a set time period of the email click, to the last email clicked. For

[1]DMA Email Benchmark Report H2 2010

example, this can mean any sale within 90 days of the email click will be attributed to the email. In the event of multiple emails being sent, the conversion is attributed to the last email that was clicked. This of course may not be the case.

Post-click tracking is typically implemented using a cookie for the tracking. There is a potential for web page refreshes to cause conversions to be double counted in some implementations of this type of tracking. A unique session ID is needed to avoid this, talk to your technology vendor for specific details in your own situation.

Looking at a typical multi-channel environment that includes SEO, AdWords, banners, email and social media, the email may not have been solely responsible for the purchase. Email solution post-click tracking does what is commonly termed last click attribution. There are more complex attribution modelling solutions outside the scope of this white paper that deal with attributing a proportion of the conversion to all channels according to their weighted value.

Inferred metrics and proxies

When the behaviour you are interested in can't be measured directly, metrics may be used that measure it indirectly. This reduces the accuracy of the measurement. This section highlights a few examples of this.

The open rate is based on the loading of a linked image. Many email clients block images by default. Customers may be reading emails without images and thus do not trigger open tracking.

Due to its name, the delivery rate is often misunderstood to mean the percentage of emails that reach the inbox. The definition in wide use is a percentage of emails that didn't bounce. ISPs can and do delete emails totally or deliver to the junk folder and in neither case provide a bounce. Inbox placement rates should be distinguished from delivery rate.

Solutions that measure inbox placement do so by including sending to seed addresses at different ISPs and automatically checking inboxes to see if the emails arrive. This is extrapolated to provide a measure of inbox placement for the whole campaign. However, there will be inaccuracies as the dynamic content and engagement profiling of seed addresses will be different to real customer addresses.

The more recent innovations for measuring engagement such as time spent reading an email are also measured indirectly. This works by measuring the speed of loading an image when the email is open. Inaccuracies creep in; just because the email was opened doesn't mean that someone was reading it. Internet connection speed can influence loading speed too.

Emails that are forwarded using the forward feature of an email client can't be measured directly. Some solutions attempt to measure this. One method is to measure forward to a friend based by tracking the different IP address and email client being used. In the current multi-screen and multi-device world this can give false positives.

This is not to say these metrics do not have value to the marketer, more that limitation of use should be understood.

Life is relative

All metrics are relative to something and have no meaning otherwise. Humans need comparisons to make choices.

This is also helpful with inferred and proxy metrics that have inaccuracies such as open rate, as while the absolute value is known to be inaccurate, using such metrics for comparing between campaigns or trends over time is reasonable. The inaccuracies are not important when comparing, as the level of inaccuracy can be viewed as consistent between different campaigns.

Metric impact

If you are comparing metrics, are all environmental and campaigning factors identical between the two sets of comparisons?

Time, date, weather, topical news, marketing activity in other channels, social sentiment and many more factors affect performance. If you are making comparisons are they fair?

Just increasing the frequency of email send will reduce your hard bounce rate. Email addresses go stale at a consistent rate. Sending more frequent emails does not generate more hard bounces and because there is less time between campaign sends, fewer emails addresses will have gone stale since the last campaign.

Have you reviewed and considered the factors that impact your metrics?

Further reading & useful links

The following section provides a list of useful documentation and website links that readers can follow for further information on the points that have been dealt with in this white paper.

The EEC has proposed some common definitions for the most common email metrics under the S.A.M.E project. Details of those definitions and more about this initiative are available here

While, as discussed in this white paper, benchmarks are not always appropriate they do have uses, there are many good sources of benchmarks.

The DMA runs many surveys and compiles benchmarks. Relevant reports include the *Email tracking study* and *National email benchmarking report*

DMA Email related whitepapers include:

- DMA deliverability
- Emails and cookies legislation
- A Guide to split testing

A general round-up of email related statistics across the industry is available:
http://www.email-marketing-reports.com/

General internet statistics:
http://www.internetworldstats.com/stats.htm

Or for more general commercial facts and figures look at:
http://www.factbrowser.com/

About the DMA

The Direct Marketing Association (DMA) is Europe's largest professional body representing the direct marketing industry. With a large in-house team of specialists offering everything from free legal advice and government lobbying on direct marketing issues to research papers and best practice, it is always at the forefront of developments in the industry.

The DMA protects the direct marketing industry and consumers. It promotes the highest standards through self-regulation and lobbies against over-regulation. The DM Code of Practice sits at the heart of everything we do – and all members are required to adhere to it. It sets out the industry's standards of ethical conduct and best practice.

Our 16 DMA Councils cover the whole marketing spectrum – from the digital world of social media and mobile marketing to the 'real' world channels of door drops and inserts. The Councils are made up of DMA members and regularly produce best practice and how to guides for our members.

We also have a packed calendar of conferences, workshops and discussions on the latest topics and best practice, and 80% of them are free for members and their staff.

As the industry moves on so do we, which is why we've recently launched a number of new services for our members – a VAT helpline, a Social Media Helpdesk and an IP Protection Service.

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