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Have you worked out which half of your advertising spend is being wasted?

In my last article [published in March 2011 *Marketing*], I recounted the age-old question raised by John Wanamaker – considered by some the father of the department store and modern day advertising – who said, "Half the money I spend on advertising is wasted; the trouble is I don't know which half." To address this question, we are increasingly seeing businesses create attribution models to better quantify the effectiveness of each customer touch point to achieve a sale or a response. Surprisingly, there are many more businesses that, while desperate to understand how to increase their marketing ROI, have not explored the benefits of marketing attribution.

Now, more than ever, accountability for marketing spend is being demanded of marketers. Most businesses on the back of the global financial crisis are looking for ways to reduce spend without a detrimental impact on sales. A well-constructed marketing attribution model can provide the proof marketers need to qualify and quantify the benefit of marketing activities and support their marketing budget.

I strongly believe the best way to understand the effectiveness of media is through marketing attribution – which is the understanding of each marketing effort, or touch point, that has an impact on your customers.

Attribution models can inform businesses about what's working and what's not. They can also identify programs that don't appear to directly contribute sales, but indirectly play a critical role in engaging customers with your brand – and ultimately lead to conversion.

Despite the noise from some naysayers, success in understanding the ROI on your marketing spend can be achieved with a high degree of confidence through the application of marketing attribution models. Of course, like any model, there are some limitations, but, like any good model, it must be a learning model that evolves with the insights it delivers.

Marketing attribution in the online space is an easier proposition than for offline. There is, however, no magic tool that can do this for you. Significant effort and skill are required to build an effective marketing attribution model.

In this month's article, I have focused on the core steps and considerations you need to address if you want to implement a marketing attribution model for your business.

A note to my mathematically minded friends, I have avoided the more technical discussion on the construction of algorithms and benefits of clustering and regression models (that would take a lot more words than this article permits).

WHAT IS A MARKETING ATTRIBUTION MODEL?

It is a process or system for attributing credit to all marketing communications that lead to a sale or transaction, rather than attributing all the credit to the communication immediately preceding the transaction. Put another way, it is the science of determining the value of each customer touch point leading to a sale or transaction, as opposed to just the last one.

In measuring attribution, it is necessary to determine the potential influence of each communication with a customer. Communication with customers takes many forms and each one has a varying degree of measurability.

Many marketers I have spoken with find marketing attribution very frustrating and become despondent with the lack of precision associated with a model. This is because there is no standard mathematical equation that will pop out the right answer from all the inputs.

Talking about marketing attribution and actually creating a model that works are quite different propositions. There is no silver bullet that will provide the solution, nor is there a readymade plug and play application or tool that will address this issue.

DO YOU REALLY NEED AN ATTRIBUTION MODEL TO CALCULATE ROI ON MARKETING?

Of course not! You can follow your gut instinct, take a punt on small samples of analysis or just plain guess! You may just get it right – although, without the analytics, you won't know why.

For me, being able to understand the dynamics of the channels I deploy to go to market and their level of influence on each and every customer segment is important. If I'm making a significant investment in marketing, I need to understand the ROI, just the same as a capital investment.

Try putting up a business case for a new piece of equipment or development plan for a new product without a financially viable return and see how the chief financial officer responds. And, if you do put a projected return on that investment, you can be assured you will be held accountable to deliver that return. So why should the marketing spend be any different?

In building marketing attribution models, we are focusing primarily on campaign-related or marketing communications driven activity. These may be:

- catalogue delivered into a letterbox
- direct mail piece
- print advertisement
- editorial piece in a publication
- point of sale and in-store promotions
- public relations lifting brand or product in the marketplace
- television advertisement
- radio advertisement
- telephone call – either inbound or outbound
- electronic direct mail
- mobile communication, be it MMS or SMS
- a mobile application
- display advertising
- social media commentary
- related blogs, or
- a mix of all or some of the different mediums.

The above list identifies the key marketing channels used by most businesses. Marketers are generally clear on the mix of media or channels that they are investing in, and to a large extent, can identify which channels customers respond to or transact with. The great unknown is the correlation between them and the other indirect communications that are not as easily identified in influencing a customer.

As I pointed out in my earlier article, customers are not goldfishes waiting for your communication before they make a decision to buy. Today's connected consumers are better informed and more aware than ever before and, for any significant purchase, they will conduct research across a variety of sources.

It is also important to remember that customers don't categorise the manner in which they communicate with your business into channels or various media. And, they don't record each marketing campaign as a milestone or event.

CONTROL GROUP	TV	EMAIL	RADIO
GROUP A	X	X	X
GROUP B	X	X	
GROUP C	X		
GROUP D	X		X
GROUP E		X	X
GROUP F		X	
GROUP G			X
GROUP H			

Figure 1

> "You can follow your gut instinct, take a punt on small samples of analysis or just plain guess! You may just get it right – although, without the analytics, you won't know why."

Customers think about your product or your brand when they have a need. That need may be generated by a well-constructed value proposition in a campaign from you to the customer. Or, the customer may have a friend who has made a recommendation, or be referred by commentary on a blog posted on an independent website. Then again, it may just be a timing issue.

Building attribution models that provide valuable insight is predicated first and foremost on the assumption that you know your customers and/or prospects.

Not just their name, location, contact details, date of birth and other general account information, but their needs, motivation, behaviours and preferences.

HOW WELL DO YOU KNOW YOUR CUSTOMERS?

Let's assume that you have a robust customer database that identifies each customer individually and has additional data elements, including products purchased, transactional history, customer service queries, events and direct marketing communications. Overlaid to each customer record I would expect there to be personal attributes such as demographics, psychographic attributes and socio-economic attributes, along with lifestyle and preference information captured directly from the customer.

From all the information captured at the customer level, it is then possible to create segments that identify discrete customer groups that share similar characteristics. These customer segments describe the types of people that buy your products and/or services.

A well-constructed marketing database that tracks activity at the customer level is a key building block for creating marketing attribution models.

The second source of data that will feed into the model is information pertaining to each marketing campaign – identified by date, time, media, offer, duration and geography. It is important to record every marketing communication, as this provides the historical record of market activity that your business has undertaken to stimulate a response from your customers.

Where there is a clear response to an offer, this information must be recorded at the customer level, as well as at the aggregate level.

Generally, these two key sources of data will be the primary data that feeds into the model. With the increasing influence of social networks, it is advisable to also apply social media metrics to capture when and where your brand or product is being discussed online.

This is equally as important whether or not you are running a social media campaign. Consumer generated content is highly influential and can have a significant affect on customer activity and responses to campaigns.

With a base of data and insights to build on and a commitment to collect further data that refines your attribution model, the next requirement is to create multi-channel profiles for each customer or customer segment. This can only be achieved through testing and further analysis.

DEALING WITH UNCERTAINTY

An attribution model is designed to apply weighting and calculate probability of actions. The major issue that is encountered when creating a model of this type is that there are levels of uncertainty in the drivers behind a customer's behaviour or decision to purchase.

It is not possible to capture all of the factors that may go into a buying decision, as many are simply not measurable. For example, did a family member or friend recommend your product to the customer? Did they hear a radio advertisement? Were they reading a three-month-old magazine in the waiting room at the dentist? Did they see a see a billboard? Were they influenced by a salesperson in-store? Or do they simply drive past one of your stores every day on the way home?

Sure, you can apply the standard direct marketing method of applying promotion or redemption codes to ascertain which offer a customer is responding to, but many customers forget to reference them or they are not captured at purchase. Many customers cannot recall campaigns of promotions to the degree of accuracy that a model needs to be built on.

I know of one company that had on its website a mandatory question for visitors to complete, which identified where they heard about their business or products. One of the selections was TV advertising and this was selected by a significant proportion of respondents. The only trouble was, the company had not undertaken any TV advertising.

From this we can determine that respondents don't necessarily regard this input as important and will click on any answer to move to the next stage of the transaction, which is why they are there.

So, rather than focus on the factors that are hard to measure, let's start with those that can reduce the amount of uncertainty in the model. Every campaign where there are specific marketing channels being deployed can be controlled to test the variables associated with each channel by segment.

Control groups of individual customers across different segments can be isolated to restrict from which channels they receive marketing communications. You can then record the inbound activity by the customers in the control group against the rest of your customer universe.

Channels best suited for control groups include direct mail, catalogues, print advertising, events, mobile, email, online advertising, SEM, billboards, in-store promotions and, to a lesser degree, TV and radio. What we are seeking is a response from a customer that can reasonably be identified as an outcome from the marketing activity.

I'm sure you are all familiar with control groups and anyone with a direct marketing background will be well-versed in the concept. Put simply, it is restricting the mix of marketing channels connecting with a customer segment to ascertain their response.

Figure 1 is a simple model looking at only a small number of outbound channels to test across one customer segment. In this example, eight control groups from one customer segment have been created at a size statistically significant in context with the size of your customer base. Each control group is exposed to the same marketing communications, but the mix of channels is different for each group.

Group H is the reference point to identify what is normal without any form of marketing communication, while the other groups provide insight into what activity is driven by each of the channels or channel mix.

The next challenge is to record the response and identify the channels that have been utilised by the customer to respond. Where possible, each transaction or communication (whether it leads to a transaction or not) needs to be measured at the customer level.

While it is not possible to control customer driven communications via social networks, it is worthwhile applying social media metrics to identify what impact the marketing communications is contributing to user generated content or word of mouth marketing.

Now this is a simple model and, as I am sure you can already see, expansion into other channels and across all your customer segments increases the complexity of the study and the number of control groups.

Additionally, it requires a business to accept that there may be a temporary reduction in sales due to reducing marketing communication in some of the control groups. I see this as an investment in gaining insight into future customer and marketing activity.

Channels that cannot be controlled easily include in-store traffic, inbound telephone calls, direct visits to websites, blogs and social networks, referrals and organic search.

The inputs of these uncontrolled channels into a marketing attribution model are achieved by monitoring customer behaviours to identify any correlation between marketing activity and customer response or sales. The problem is that there can be no surety that any correlation in data has a causal relationship without further analysis.

For example, if your business identifies that your highest spending customers make their purchases both in-store and online, you cannot guarantee that driving online-only customers into your stores will increase their spend. By running a study, however, this proposition can be tested to identify whether or not this would deliver a tangible increase.

The model needs to account for uncertainty by incorporating the results from the studies and then tested to see if the attribution in the model matches the actual results. This will then enable you to ascertain whether the model is mathematically sound.

If the results don't match, then the model needs to be recalibrated to ensure it operates consistently in the same manner as the studies you have conducted.

> "It is not possible to capture all of the factors that may go into a buying decision, as many are simply not measurable."

EVOLVING YOUR ATTRIBUTION MODEL... AND YOUR CUSTOMER INSIGHTS

To create multi-channel marketing profiles such as those outlined in this article, you can incorporate as little or as few data elements

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as you deem necessary. It goes without saying that the more data you have at a customer level, the better chance you have of creating a robust model. But it is best to start small and build up as you learn more about your customers and more about the relationship each channel has for each customer segment.

This will enable you to control the initial investment and grow the model progressively while measuring the incremental benefit of the different data elements.

As the history of communication and transactions with each customer increases, it is then possible to apportion through statistical modelling, the incremental impact of each touch point. This is where the attribution model becomes complex and monitoring of customer behaviour of paramount importance.

When reviewing marketing results within some businesses, it is not unusual to find double counting of responses across different campaigns or different channels. This occurs through a myopic approach to each campaign and a limited focus on customer engagement.

With the convergence of online marketing and offline marketing, the ease of measuring online activity from a customer often results in the online channels being credited with greater success than other channels. Once sales driven by the marketing channel are properly allocated, credit can be accurately given to the programs that actually do drive sales.

A customer's decision to purchase is dependent on many variables and is not driven by a single point of marketing. The decision and ability to purchase requires a recipe of different marketing media, supported by a good distribution model and a competitive price that counts.

Each time your business, brand or product touches a customer it has some level of influence: sometimes positive, sometimes negative, sometimes negligible and sometimes significant. This being the case, each touch point needs to be monitored and weighted to ascertain its influence on consumer behaviours.

This is an iterative process for interpreting data to quantify marketing efficacy across touch points and mediums throughout the full customer life cycle and every purchase or response.

Certainly, you may not get it right the first time (and, to be honest, probably not even the second or third time), but as the model evolves and your insight into your customer increases, you will be able to refine the model with a higher degree of accuracy.

Ultimately the Holy Grail for all marketers is knowing the perfect channel/media mix model, which includes offline and online media. If you want to achieve this, you'll need an attribution model. But it's going to take some effort.

The reward? Better ROI on your marketing spend, greater insight into your customers and rock star status in your business! **M**