Commercial Analytics

*The Capabilities*

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Commercial Analytics – the capabilities

Execution: Scientific marketing

Test Measure Refine Execute
Event-triggered ◇ Multi-channel ◇ Dialogue

Product, Pricing, and Proposition

Customer View
Interactions Attitudes
Transactions Attributes

Customer Analytical Record (CAR)

Campaign data
Campaigns
Presented Outcome

Model Factory

Analytical shift

Before New
Norms Exceptions
Trends Deviations
Clusters Outliers
Networks Orphans

Big(ger) data
Dynamic analytics
Real-time analytics
Event streams

This is the image or map that we will develop over the next pages. Commercial Analytics is the kind that makes money. From data to dollars, insights to income, this is all about how to run the business better.

It is about identifying opportunities and acting on them.

It is about creating new opportunities and new demand.

It is sales, marketing, retention, product development, operations, risk, and reward.

It is the present and the future.

This pack shows you what the commercial analytics landscape looks like and where it is developing.
Commercial analytics starts with the **execution** because that is how we make money. In a marketing setting this means that you have a well-functioning campaign execution capability.

It is **scientific marketing** because it enables very fast test and measurement of campaigns. There should be no barriers to try out ideas and quantify them. You need this capability because you simply do not have all the answers and all the knowledge.

Typically, you should be able to get a campaign from idea to measured results (**campaign velocity**) in no more than two weeks for your standard channels.
Once you have tested and possibly refined your ideas into a winning, money-making campaign, then you **execute** it not just once but typically again and again. It may be the daily welcome programme, the cross-sell for the weekend activities, the fortnightly proactive churn activity, the monthly loyalty program, and the annual renewal. Whatever is right for your industry and business.

And the campaigns are not just triggered on time but **triggered on events in the customer’s life**, such as new purchases, changed usage, unusual behaviour, etc.
Commercial Analytics – the capabilities

They are of course **multi-channel and multi-stage campaigns** where and email may be followed by a letter and then a call if the customer is of high enough value. We do not forget that the best time to talk to a customer is usually when he or she contacts you. To do this effectively we need **dialogue management** or **real-time inbound marketing**, which is the decision support for our call centres, retail stores, and web sites that enables us to keep the conversation and the offers relevant and timely. Typically, for inbound marketing in a call centre you would present new offers to the customer 20-50% of the calls and expect a **conversion rate of 25-50%** of the presented.

[Image of a flowchart showing the execution process: Test, Measure, Refine, Execute. The flowchart includes notes for event-triggered, multi-channel, and dialogue.]
Outside traditional direct marketing we do not forget product, pricing, proposition and go-to-market. We consider them to be execution channels for analytical insights. And like direct marketing we will be able to quantify the effect of our actions (though often with less rigour than then control group validated activities).

Insights should reveal gaps in our product offerings as areas of our customers’ lives that we are not servicing (or not servicing well). Pricing strategies and bundles are another well-known outlet for insights, and is market research and product proposition and positioning development.
The **single customer view** or the 360° customer view. It includes:

**Attributes**, which is your rarely-changing information like name and address and also socio-demographic information that you may have purchased. For example:

- Name, address, postcode, email, ...
- Age, marital status, children, ...
- Payment methods and details (credit cards, bank accounts, ...)
- Relations to other customers (family, business, ...)
- Contact preferences (marketing permissions)
- Demographics (NRS social grade A/B/C1/C2/D/E, ONS socio-economic class 1-8, Mosaic UK Group/Type, ...) – purchased or own
Transactions are the customer’s purchases, payments (including late and missed payments), and other information about how he transacts with your business. Examples:

- **Purchases** (store, mail-order, online, ...)
- Bill **payments** (including late payment information)
- Current and expired **subscriptions** (or other products / promotions)
- **Usage** data (calls on mobile network, programmes watched on TV subscription, bytes transferred through ISP, ...) if appropriate for the business
Commercial Analytics – the capabilities

**Interactions** are when the business and the customer interact and are important to understand cost/profit (many calls to the call centre are expensive), as churn indicators (many visits to the ‘how to leave’ section on the web site) and much more. Examples:

- **Calls to the call centre**, including call reasons and notes.
- **Visits to the web site**, including what type of information did the customer look at (for example: adverts for new products or technical help for existing product)
- Conversations **in store**.
- Conversations with **field agents** (e.g. service or installation)
- **Indirect channel** interactions (agents, distributors, field, etc.)
**Commercial Analytics – the capabilities**

**Execution: Scientific marketing**
- Test
- Measure
- Refine
- Execute

**Event-triggered** ◊ **Multi-channel** ◊ **Dialogue**

**Product, Pricing, and Proposition**

**Attitudes**: How does the customer feel? Traditionally through focus group samples but now increasingly using text mining and social network techniques.
- **Focus groups** and **market research results**
- **Emails** to the company (suggestions, support, sales, etc.)
- **Call centre notes** are a rich source of customer sentiment attributable to individual customers
- **Comments** on company forums, technical support sites etc.
- Facebook, Twitter, blogs, and other **social media** outlets

Some of these are attributable to individual customers while others provides samples or aggregate information. All is valuable.
Commercial Analytics – the capabilities

Campaign data is information about which offers you have extended to each customer and how they responded.

- **Campaign information** includes id, date, time, type of campaign, structure (e.g. multi-stage), etc.

- **Offer information** includes information about the product, the promotion (e.g. 20% off), and the presentation (e.g. graphics, call centre script, ad copy, ...), the channel, the agent, etc.

- **Outcome information** includes click-through, shopping cart, purchase, usage, and any other relevant activity from the customer (e.g. ‘like’ the product on Facebook)

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Information will be available at different levels, depending on the source and the business context:

- **B2C** organisations will often have some information at the household level and some at the level of the individual.
- **B2B** companies will often have a user – chooser type structure where one person or group (the chooser) may be responsible for buying for many users. (Think mobile phones, furniture, or computers.) And there will be complex company structures which may be important.
- **Indirect businesses** will have a further level in the hierarchy to include the distribution channel (e.g. agent or reseller)

**Customer View**

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**Campaign data**

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  - Outcome

- Customers

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To simplify, many organizations introduce the **Customer Analytical Record (CAR)**: a standard set of data, including aggregate data, stored as attributes against each customer over time. Typically there would be at least 24 months data and from a few thousand to ten thousand attributes. We aim that at least 80% of our analysis and reports can be done on this data set. Data may include:

- Standard customer attributes
- Aggregated usage (last month, 3-months, 12 months)
- Aggregated billing / purchases
- Aggregated interactions per channel
- Attitudes summary (e.g. satisfaction scores and trends)
Commercial Analytics – the capabilities

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Benefits of the Customer Analytical Record include:

- Standard data set means **consistent data definitions** (single truth) and a gentler learning curve making new **staff more productive** faster.
- Simpler format directly suited for many models and analysis (e.g. churn can be treated as a regression / classification problem rather than a time-series / hazard problem) **reduces complexity and improves the time to execution.**
Commercial Analytics – the capabilities

The CAR enables us to have a Model Factory where the predictive models supporting our many ongoing customer activities and campaigns (see “Execution” above) are automatically refreshed and re-validated at regular intervals. Markets and customers change, and so the behaviours of customers change. We want to avoid stale models that predict yesterday’s reality but does not deliver results today. We need to refresh the models to take into account current customer behaviour and we want to re-validate the models to make sure they are still predictive and stop any campaigns that are based on models with no (or negative) lift to allow us to re-analyse the situation.

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Let’s talk about people. Analysts work primarily on the data in the CAR to produce dashboards, reports, and models. Models that are part of ongoing campaigns are included in the Model Factory for automatic updates.

Some analysts will have the ability to gather data from other systems, be they the main data warehouses or the operational source systems. We call them Data Wranglers and they are usually analysts with a longer tenure.

To complement Analysts and Data Wranglers you may have Team Leaders or other management function to handle scheduling, workload, quality assurance, and stakeholder management.
Commercial Analytics – the capabilities

We sometimes borrow a technique from agile software development and use pair analysis where two people work together on the same workstation at the same time to develop the insights. One person, who is an analyst, types in the code or drives the analysis workbench. He or she is called the driver. The other person reviews the work and comes up with ideas. This person is called the observer and may be an analyst but we have found it extremely useful to include business people such as product or channel managers in this role, depending on the business problem. It takes a little experience to know when to apply the pair analysis technique, but it can be extraordinarily rewarding.
The single most important component for success of commercial analytics is this: to have people who all understand data, customers, and commercials. Data is where the recruitment focus often lies: can this person manipulate data and create models? Customers are crucial: the actions are actions for and with customers, actions to change customer behaviour. Team members need to be able to get into the head of the customer. Commercial results is what it is all about and you can have great models and great marketing, but if the changed behaviour is not profitable or cannibalises other profits then there is really no point.
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**Model Factory**

Team lead
Wrangler
Analyst

You probably will find it **hard to recruit** for this combination. It is relatively easy to recruit for the technical data skills. You can look at the candidate’s history to see how often it mentions money and customer behaviour; this will give you an indication. Mostly you have to **grow this talent internally**, and many of **the techniques we have already described are designed to help you** with this.

**Start with the execution** will help focus on changeable behaviours and commercials results. **Pair analysis** with observers from the business helps transfer commercial skills and customer knowledge. The **CAR** keeps you focused on the results, not the technical data wrangling.
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**Analytical shift**

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Big(ger) data
Dynamic analytics
Real-time analytics
Event streams

**Times are changing.** So far we have discussed traditional analytics which uses relatively static data (e.g. from a data warehouse), perhaps supplemented with key pieces of interaction data for real-time inbound marketing.

In this traditional world we tend to look for the norms: the trends, the clusters (e.g. segments), the networks, and so on.

Increasingly we are interested in exceptions: the deviations from trends, the outliers, and the network singletons or orphans.

This was always the case in the industrial setting where we were interested in machines that were about to fail or spotting defects.

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The same approach applies to marketing and other commercial analytics. It is when I step out from the crowd that I reveal who I really am as a person. But this kind of processing requires different skills, tools, and techniques. It uses bigger data because we are now analysing raw events, not just summaries. It is dynamic and real-time, and the results are expected in real-time. When I step out from the crowd is also often the right time to communicate. And it is event stream processing which is very different from database processing: you now have to worry about sequence neutrality (same results if the events arrive in different order) and much more.
Commercial Analytics – the capabilities

We can help. We understand this space, we have been here before.

**Information:** There is a wealth of resources on our web site (www.cybaea.net) – please use it.

**Change:** We can help you understand what you really need and what is optional. We can put money against the opportunities and help you develop a change programme that is funded from the benefits it delivers along the way.

**Interim** management: We can step in and provide the talent you need to achieve success now and train or recruit for permanent operations.

**Analytics as a service:** For certain industries we can host the analytics and provide you with the norms, exceptions, and marketing actions.

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How we can help

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<td>There is a wealth of resources and information available on our web site (<a href="http://www.cybaea.net">www.cybaea.net</a>): please use it and sign up for our newsletters. We understand this landscape and how it is evolving. We have been through the changes before. We provide custom research and reports using our industry contacts and knowledge.</td>
<td>We can help you understand what you really need and what is optional. We can put money against the opportunities to develop a vision and business case for where you need to be. We can help you develop a change programme that is funded from the benefits it delivers along the way.</td>
<td>We can step in and provide talent you need to achieve success right now, and train or recruit for permanent operations. We only use experienced people who have done this before and who deeply understand commercials, customers, and data. They are all credible at every level from the board to the technical analyst.</td>
<td>For certain industries we can host the analytics and provide you with the norms, exceptions, and marketing actions. We work with a number of vendors of hosted software to provide the analytics capability as a service. For some organizations we provide a custom solution. We can provide the reports, dashboards, and insights or we can directly provide the marketing actions</td>
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Commercial Knowledge Discovery and Exploitation
It is what we do

Commercial, because this isn’t some academic endeavour but a practical one with the specific goal of helping you run your business better. Yes, knowledge may lead to true wisdom, and we are all for that, but we never forget that you have a business to run. Our people are practised leaders in Marketing, Risk Management, and Operations, and work as consultants, interim managers, and in any other way that helps you deliver your results.

Knowledge discovery, because you do need to get from the information and the data to the insights and the knowledge. Commercial dashboards and the analytical tools will help you here. Again, we are practical. We know and understand that your information and data warehouse isn’t perfect. There are gaps, errors, and delays. That’s OK. We can help you do a lot more with what you already have. And we can help you prioritise the one or two or few enhancements that will really make a bottom-line impact, build the business case, and work with IT to deliver it in a practical and pragmatic way and to a reasonable time scale.

Exploitation, because it is ultimately all about execution. What good is knowledge if it doesn’t lead to change? We have been there, done that, earned the money and the customer loyalty. We developed our Insights Driven Campaign Creation process to systematically take insights from reporting and data mining and turn them into new testable marketing campaigns, month after month, year after year. And we developed the very commercially focused dashboards, reports, and fast analytics that can feed this process, and the business structures, organisation, and leadership that commercially optimises the results.
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