



Evaluating the true impact of Eat Them to Defeat Them on shopping behaviour

Written by Sara Jones at Pearl Metrics

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Our Aim

In 2019 ITV and Veg Power developed the *Eat Them to Defeat Them* (ETTDT) advertising campaign. It was designed to get children eating more healthily. The 2019 campaign ran across Jan-March with approximately £5.5m worth of media, the majority of which was delivered free of charge. The overall media value was lower in 2020 at £3.1m, as there was considerably less Outdoor available (due to the impact of Covid) however there was £664k more TV with expanded coverage from foundation supporter ITV, and from new partners Channel 4 and SKY. The TV ads premiered on Saturday 15th February 2020 and the campaign ran until the 15th April, by which point 46 million people had seen our adverts. 86% of households with 4-9-year olds saw on advertising 12.4 times each across TV, cinema outdoor, print and You Tube.¹

Following both our 2019 and 2020 campaigns we commissioned consumer research to find out what our target audience thought about ETTDT. After the 2019 activity an incredible 32% of kids were aware of the campaign and this rose to 48% in 2020². Not only did ETTDT make eating vegetables seem fun to children but parents were claiming to be buying more veg and more importantly kids were eating more too. Claimed behaviour is all well and good but we needed to know if this was actually translating into a change in shopping behaviour and consumption. Back in 2019 we set ourselves the task of evaluating the true impact that ETTDT had had on purchases of vegetables in the UK, and we have now completed the second wave of this evaluation.

Our Approach

Everyone has heard the phrase, "*Half the money I spend on advertising is wasted; the trouble is I don't know which half*". What you may not know is that it was said approximately 100 years ago³, and thanks to advances in data collection and computer power, it is no longer true. With the UK investing c. £25,400 million in advertising each year⁴ it is incumbent on marketers to use mathematical evaluation to guide decision making and ensure they can justify their investment choices to their board members and shareholders. There are many approaches used but the most common and well respected is Econometrics. Used across all sectors by brands such as Kraft Foods, VW, Argos and Tesco, Econometrics helps marketers to understand the contribution that marketing makes to their sales and ultimately their bottom line.

¹ eTelmar Media Planner

² 32% of parents were aware of ETTDT in 2019 and this rose to 42% in 2020

³ The originator is uncertain but it is often attributed to John Wanamaker (1838-1922) and Lord Leverhulme (1851-1925)

⁴ 2019 Adspend AA/WARC Expenditure report Apr 2020



So what is Econometrics? If you were to study Economics at university you would have at least one module of Econometrics in your course⁵. It uses mathematical regression analysis (similar to the type studied in GCSE Maths) to build an equation that explains what causes movement in an important variable over time. Econometrics is used in many wide ranging aspects of society such as working out what causes fluctuations in interest rates (Bank of England), understanding the key triggers of war (DFID) and setting insurance premiums (insurance companies). In the case of marketing, the variable of interest is most typically sales and our “model” or equation might look something like this⁶:-

Our **dependent variable**, is the metric we are interested in understanding in week t

The **β s** are our **coefficients**. They can be +ve or -ve.

Our modelling software estimates the value of each coefficient, using Econometrics.

The value tells us how many sales we get for a 1 unit increase in that variable.

E.g. 10 x TV means we make £10 for every £1 of TV we buy



$$\text{Sales}_t = \alpha_t + \beta_1 \text{Christmas}_t + \beta_2 \text{Rain}_t + \beta_3 \text{TV}_t + \beta_4 \text{Promotions}_t - \beta_5 \text{Price}_t - \beta_6 \text{Competitors}_t + \epsilon_t$$

α is our **constant term**: it's the sales we expect when nothing else varies

ϵ is our **error term**: this represents the sales that we can't explain with the other factors in our model. It is vital that these are random and display other key statistical properties

Our Inputs

As you can see, an Econometric model doesn't just include data on advertising; in order to accurately understand consumers' response to ETTDT, we had to measure ALL factors that caused people to buy vegetables. In order to build such a model, we collected an exhaustive set of data on all the key attributes we needed:

- **Sales** data was provided by IRI
- **Price** data was provided by IRI
- **Promotions** data was provided by ProduceView
- **ETTD media** was provided by ITV, GoodStuff and Nielsen Media Research
- **Vegetable category media** was provided by Nielsen Media Research
- **Competitor category media** e.g. fruit was provided by Nielsen Media Research
- **Supply issues** were provided by Veg Power and Google
- **Key events** data was provided by Pearl Metrics and Google
- **Seasonality and weather** data was provided by Pearl Metrics and Met Office
- **Economy** data was provided by ONS, GFK, Bank of England and HM Treasury
- **Covid & other trend**⁷ data was provided by ONS, GFK and Google

We obtained over 4 years of detailed weekly data on all these areas; this gave us 222 data points which was crucial to help us understand long term trends and patterns.

⁵ The LSE mandates Econometrics until the end of year 2. <https://www.lse.ac.uk/study-at-lse/Undergraduate/Degree-programmes-2021/BSc-Economics>

⁶ This is purely an illustrative model and is not representative of the model used to evaluate ETTDT

⁷ E.g. Veganism, veg box delivery etc



It is worth noting that the sales data, very kindly provided by IRI, pertains to Groc Mults and does not include other channels such as independent retailers and box schemes.

Our Scope

Obviously the UK vegetable market contains hugely varied products, so the next challenge was to work out how we could model a whole category robustly. As the key drivers of vegetable sales are largely external factors such as availability, weather and events such as Christmas/Easter, we separated all vegetables into 11 groups, each of which had similar purchase patterns⁸. The next most fundamental driver in this category is price so we ensured that the price points and trends were similar in each of our 11 groups⁹. The groups we modelled were:

1. Fresh Broccoli
2. Fresh Carrot
3. Fresh Corn
4. Fresh Pepper
5. Fresh Tomato
6. Salad Veg: Avocado, celery, lettuce, radish, asparagus, cucumber
7. Winter Fresh Veg: Cauliflower cabbage, parsnip, brussels sprouts, other root veg
8. Other Fresh Veg: Courgette, mushroom, stir fry, mixed prepared, other fresh
9. Frozen Pea
10. Other Frozen Veg
11. Canned Corn

Our Evaluation of Covid-19

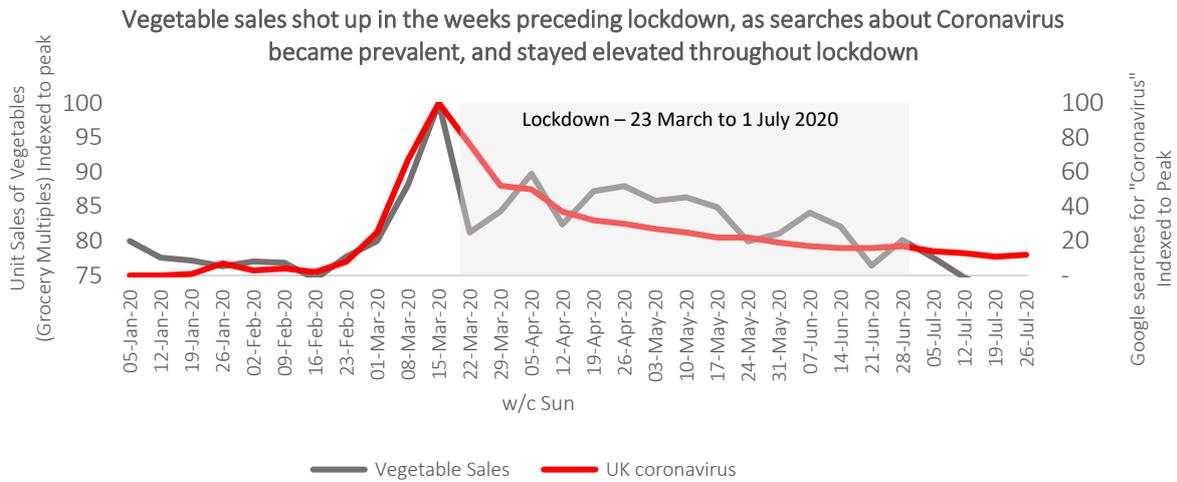
When the 2020 campaign was being planned, no one could have guessed what would happen in March 2020 – the UK went into lockdown on 23rd March and even in the weeks preceding this date, demand for supermarket bought food (including vegetables) increased considerably. The fortuitous upside of our modelling approach is that Econometrics is perfectly suited for separating ETTDT from Covid¹⁰ and so we can now report on the impact that lockdown had on sales.

We could see from basic sales analysis that UK vegetables sales were mirroring Google searches for Coronavirus.

⁸ Please note that the data cuts available to us were limited by the pre-defined structure of the IRI data

⁹ The campaign was not aiming to *directly* drive sales of staples such as potato, onion or garlic, so sales of these products were not modelled explicitly

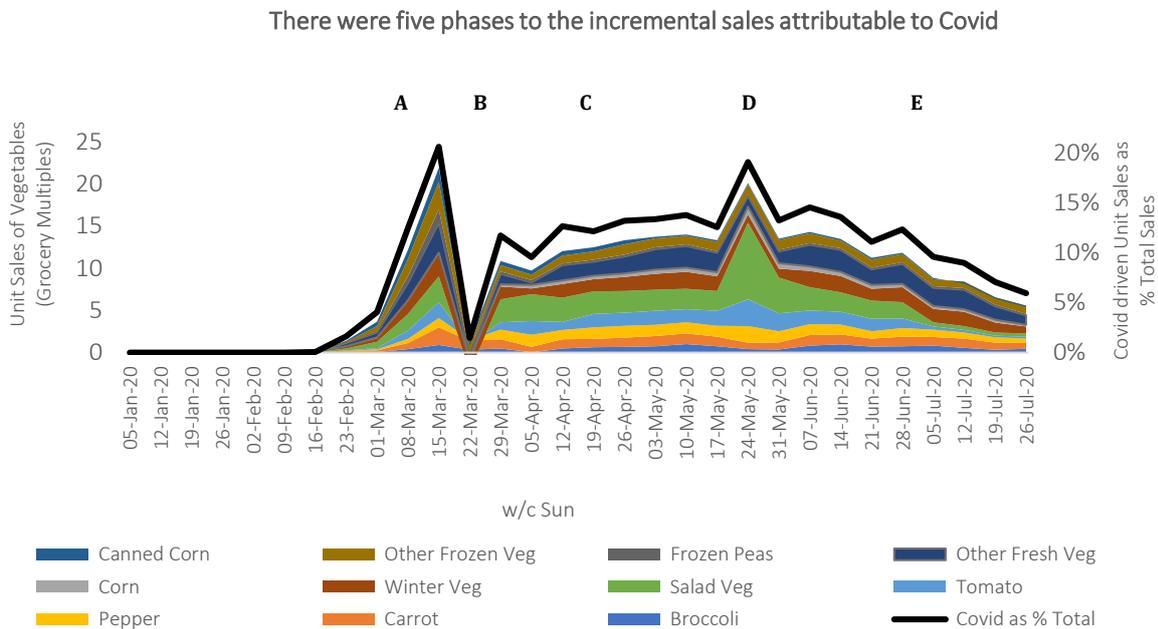
¹⁰ ETTDT ran in 2019 and 2020 so we have a control, and the 2020 campaign kicked off several weeks before Covid's impacts were felt. Despite having evidence that 2020 out performed 2019 from the consumer research, we have erred on the side of caution and the models assume each £ of media delivered the same uplift in 2020 as it did in 2019 to ensure we didn't confuse Covid and the 2020 campaign.



SOURCE: IRI and Google

So we used this Google Trends data to help us separate the incremental sales caused by the lockdown from other factors that also changed in this period such as weather, prices, category media and of course ETTDT.

Our modelling clearly shows that the sales response to Covid can be grouped into five distinct phases:-



SOURCE: Pearl Metrics modelling based on IRI sales data of Groc Mults

- A** - early stockpiling pre lockdown
- B** - dips when lockdown first commenced and households couldn't shop/there were out of stocks
- C** - elevated sales during core lockdown period as more households were eating at home (no school meals, no office lunches and restaurants shut) and hence shopping from the supermarkets





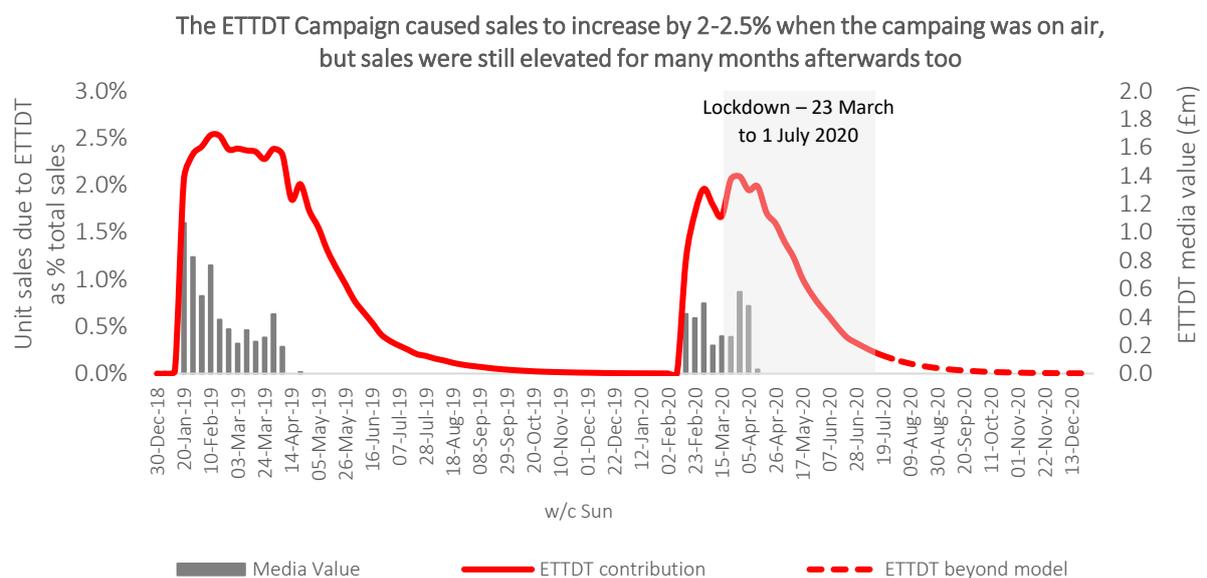
D – there was exceptionally hot weather in May, which caused an additional bump in demand for salads and tomatoes

E – sales start to return to normal levels as lockdown is eased

Our Evaluation of ETTOT

Each of the Econometric models provided a breakdown of all the factors that drove sales of our 11 vegetable groups; the weekly sales attributable to price, promotions, weather, Christmas, Veganism, Covid etc. By doing this we could accurately isolate the pure impact of ETTDT on vegetable sales, over and above the other sales drivers.

When we evaluated ETTDT back in 2019 we knew that when the campaign was live category sales increased by 2-2.5%. What we couldn't yet see, at that time, was that consumers didn't simply return to their normal shopping behaviour afterwards. Now, with the inclusion of year 2 of ETTDT in the modelling we know that sales were elevated for many months after the campaign ended, both in 2019 and 2020. We achieved something that many marketers dream of; we changed long term shopping behaviour. Indeed, at the point of writing this we believe that veg sales will still be seeing a positive impact from ETTDT 2020. We have every reason to believe we can expect a further sales boost in February 2021 when ETTDT returns, as awareness of the campaign is growing year on year.



SOURCE: Pearl Metrics modelling based on IRI sales data of Groc Mults.

**EAT THEM
TO DEFEAT THEM**



Between Feb 19 to July 20 ETTDT has encouraged the sales of an additional 25,828million gm of vegetables^{11,12}. The equivalent of 517million child sized portions¹³. In revenue terms, this amounts to £63m of extra vegetable sales in Grocery Multiples.

Whichever way we look at ETTDT, the financial return has been exceptionally high. If the 2019 & 2020 campaigns had been bought on a commercial basis, they would have cost £8.66m, and we would be reporting a ROMI¹⁴ of £6.30 net revenue generated for every £1 of media. To put this in context, even the most effective FMCG brands only see revenue ROMIs of £3-5.

However, this wasn't a commercial campaign and the media on the whole was donated free of charge. The actual investment costs

across the two years were £700k, meaning the true ROMI was a staggering £91 of net revenue for every £1 of spend.

Furthermore, these payback figures don't even attempt to take into account the very purpose of the campaign; the impact on health and society of getting children to eat more healthily. The true ROMI is considerably more impressive.



Pearl Metrics

This article was written by Sara Jones, founder of Pearl Metrics, an independent analytics consultancy.

Pearl Metrics uses data to measure, report and evaluate customer and employee behaviour; past, present and future. We allow organisations to link their investment decisions to business outcomes, removing the need for gut instinct, enabling insight driven decision making.

We have been working with the team behind ETTDT since 2019 and we look forward to helping them shape the future campaigns to maximise the impact of this incredibly important work.

<https://www.pearlmetrics.com/>

¹¹ We assume 1 IRI unit = 400g

¹² Recall that the sales data, very kindly provided by IRI, pertains to Groc Mults and does not include other channels such as independent retailers and box schemes, which are therefore not included in our analysis

¹³ We assume 1 child portion = 50g

¹⁴ Return on Marketing Investment = (Incremental revenue - media value) / media value