

Does empirical science have a place in marketing?



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reminds us all to take note of empirical research

THE EHRENBERG-BASS Institute was inaugurated last March in the University of South Australia. For those whom this piece of news may have escaped, the new Institute upgraded the University's Marketing Science Centre and its long-standing partnership with the Ehrenberg Centre for Marketing at South Bank University, London. The job of this continuing partnership, which is funded by leading marketing companies, agencies and others, is to establish new knowledge about how markets work.

There is already a substantial corpus of such knowledge, which ought to be in the marketing bloodstream but, sadly, doesn't seem to be, to judge from what is written elsewhere. How many marketing textbooks, for instance, discuss Double Jeopardy or the Duplication Law, and how many marketers know about and use them?

The two pioneers for whom the Institute is named, Frank Bass and Andrew Ehrenberg, have worked in different parts of the field, but they have one important feature in common: a passionate belief in the importance of empirical science. What does this mean, and how does it apply to marketing?

The importance of empirical science

It is not mere empiricism. All marketers are natural empiricists. Market research, their major tool, is an empirical activity. Marketers are forever trying to observe what happens in their markets, in ever greater detail, and they use technical devices (for example, multivariate statistics and econometrics) to 'model', impose order and achieve prediction. These are 'scientific' tools, but this activity alone is not empirical science.

Empirical scientists aim for *generalisation* and their chief instrument is *replication*. They look for patterns that keep occurring, in different markets, product types, countries and groups of people. They test them, over and over again, on 'many sets of data'. Only when the pattern keeps repeating robustly, no matter what else varies, do they call it a 'lawlike relationship' (in Ehrenberg's term) and express it as a model.

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Ehrenberg's laws of buyer behaviour, including Double Jeopardy and the Duplication Law, and Bass's Diffusion Model for new technological products (for more on these see the box over the page), were based on just this painstaking replicated observation and testing. 'Laws of nature are the generalisation of natural occurrences with which the occurrences are always in accordance' (1).

Unlike 'models' based on single bits of history, the models produced by empirical science are safe to use as benchmarks, because they tell you what to expect. They give you confidence in prediction, and help you to avoid silly mistakes. It is no good launching a new brand with a target like '5% penetration and an average purchase rate of five times per year' if the average purchase rate is only twice a year and even the brand leader, following the Double Jeopardy law, manages only three to four times a year.

Application to advertising

Some have resented these patterns in the past, especially perhaps agency people who see it as a constraint on their creativity. But this is quite wrong. Knowing the normal behaviour of markets is not a straitjacket but rather a scaffolding within which one's imagination can work freely. No architect or engineer would get very far designing a building without basic knowledge of the strengths and properties of their materials. No artist could paint a good picture without understanding how to prepare his canvas (look

MODELS

Double Jeopardy

Brands with higher shares have both higher penetration (more people buying them) and higher average purchase frequency (their buyers buy them more often). Thus, brand leaders 'win' twice over. But penetration is by far the biggest difference – loyalty measures such as purchase frequency or share of requirements vary much less, often hardly at all.

Duplication of Purchase Law

The extent to which buyers of any brand will choose any other brand is proportional to, and predictable from, the other brand's share alone. This means that brand choices are virtually independent: buyers of Brand A are no more, or less, likely to also buy Brand B than are buyers of Brands C, D or E (to also buy B). Thus, consumers are unsegmented in terms of the brands they choose (it doesn't apply to product variants).

The model fits not only fmcgs (of which over 50 categories have been studied) but also cars (including luxury models), PCs, financial services (banking, credit cards, insurance), women's clothing, stores and store chains, telecoms, gasoline and aviation fuel, doctors' prescribing practices, and viewing of TV programmes and channels. Some of these are so-called subscription markets, which differ from fmcgs (repertoire markets) in that they have many more solely loyal buyers. Even so, Double Jeopardy and the Duplication Law have been found to apply in these markets too (2).

Diffusion Model

Bass's Diffusion Model predicts how a new product innovation will develop: the speed at which it will be adopted, spread through the market and reach its peak (if there is one). It is essentially based on observations of how similar types of innovation have performed, together with intention-to-purchase information. There have been many refinements of it over the years.

at what happened when Leonardo failed to do this with the *Last Supper*).

Why should we expect a market to break the rules just because we wish it? Realistically, our knowledge of buyer behaviour does tell us that it is hard to change the status quo: established brands, especially the leaders, have advantages that take some shaking. It is not damaging to know that. Rather, it means we can work with our feet on the ground.

Sometimes, too, the rules are broken. Empirical scientists expect confirmation, but are open to the possibility that some new example will not fit. As Bass famously said about his Diffusion Model: 'in forecasting the time of peak, it is helpful to know that a peak exists'. The reaction then is not to throw away the rule, but to look for a specific reason. If a discrepancy keeps occurring, the rule can be modified, although this is not done lightly.

And, of course, markets can change. We would never have had the IPA Awards if there had not been 25 years of stories of brilliant campaigns that pushed brands up, in contrast to unsupported, weakened leaders that came down. The 'laws' have sometimes been misunderstood as counsels of despair, being read as saying that nothing ever changes, so it is no use trying. This is, and always was, nonsense.

What these 'laws' do is tell you what happens when things change: how things can change and how they can't. For example, we know, from work at the Institute, that when a brand grows in share it does so mainly by increasing penetration: it also increases purchase frequency (by the Double Jeopardy rule) but by much less. The same applies in reverse when share falls. This has some clear implications: you can't grow a brand only by talking to your existing customers, important though they are. Reach matters.

This knowledge is descriptive: it tells you what is the case and how things happen. It is not prescriptive. The non-scientific aspects of marketing – 'insight', ethnographic observation, understanding how people use your product, imagination in inventing new differentiations and twists, and so on – all have full play, and so they should. Within the framework provided by empirical science, they have some chance of working. Based on nothing but ignorance and myth, they are dangerous.

The Institute and its associate researchers continue to produce original discoveries with relevance to branding, pricing, salience and forecasting, media planning and advertising effectiveness. In more detail, this includes studies into clutter, advertising avoidance, individual-level advertising effects, reach versus frequency, generalising known usage patterns in advertising awareness, sponsorship and cross-media consumption. This work could not happen without the continuing financial support received from corporate members across Europe, Australasia, USA, South Africa and Canada. Members receive prior reports of all the dramatic discoveries made by the Institute's teams, and regular tailor-made seminars and in-house briefings explaining their significance and practical consequences. 🍷

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References

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