PUSHING THE BOUNDARIES OF THE 'RESEARCH DEBRIEF'

QUANTIFYING THE IMPACT OF STRATEGIC RECOMMENDATIONS

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INTRODUCTION

The future influences the present just as much as the past.
Friedrich Nietzsche

At its core, the purpose of market research is to help managers make better decisions. In this regard, market research has evolved from standard data delivery to value-added interpretation of findings.

'Insight' is the buzzword of this decade, and the role of the researcher has become a relentless struggle to uncover new and interesting insights. However, we often encounter situations where the client's brand team fails to translate these insights into a robust action plan, and valuable research findings are lost in ill-conceived or poorly executed marketing strategies. Our experience suggests that this happens because the client is left with poor or no quantification of specific recommended actions on the business; as a result many key marketing decisions, while guided by market research, are still hinging on the marketer's gut feel.

As an industry, we are aware of the need to improve to 'make a difference', and there have been extensive discussions and papers published on the topic. In her paper 'Repositioning Research: A New MR Language Model',[1] Virginia Valentine concentrates on the language market research should use to describe itself to come across as exciting and inspirational. David Smith, in an article entitled 'A fantastic industry in search of a re-launch'[2] gave a clarion call for a revamp for market research to capitalise a bigger and better role in the future. These are just a couple of examples showing the frustration of an industry which appears to be incapable of achieving the recognition it truly deserves.

At Vanguard, we have developed an approach – 'Competing for Choice'[3] – which not only produces insights, but also supports the client in translating these into brand initiatives, and provides them with a facility to quantify their impact over time. In doing this, we believe we have bridged the gap between market research and strategy development. More importantly, this has delivered a quantum leap in building confidence and consensus within management teams to act on specific recommendations. At the risk of sounding clichéd, the approach that will be described is 'strategic', 'dynamic', and 'accountable', in alignment with the theme of this conference.

This paper starts with an explanation of the core building block of the 'Competing for Choice' approach – the 'resource-based view'

– and expands on this to explain why consumers can be viewed as 'resources' and how this allows development of a customized strategic 'brand resource architecture' which forms the foundation for research design and provides clarity on underlying market dynamics and brand performance. The brand resource architecture also provides the backbone of a dynamic simulation model developed to quantify the impact of initiatives. The paper also emphasizes the process of how we work with the client management team to articulate and quantify the impact of initiatives over time, to build confidence and resolve to act on recommendations. A description of the implications of the approach on data collection and processing are beyond the scope of the article, and have been summarised in appendix 1.

THE BUILDING BLOCK OF THE VANGUARD APPROACH: CUSTOMERS AS RESOURCES

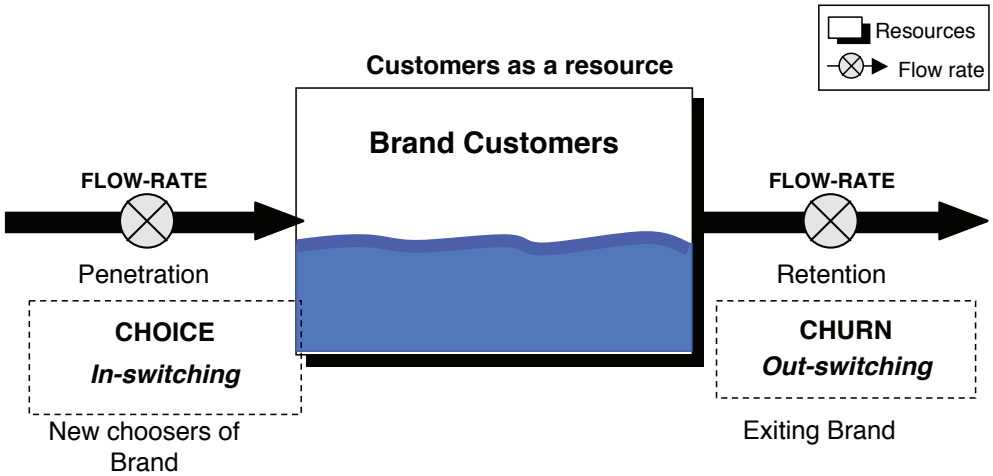
The Vanguard approach to market research is based on the concept of resources.[4] A resource is characterised by the fact that its level can change only by filling up (accumulating) or draining away (depleting) over time. Thus the level of any resource equals what has ever been gained minus what has ever been lost.

In everyday life we encounter resources all the time: the water in a bathtub, the trees in a park, the people in the office, the money in your pocket and … the customers of your brand! The amount (level) of money in a bank account is a resource: its level at any moment in time equals all the money ever deposited *(in-flow)* less the money ever withdrawn *(out-flow)* from that account.

The properties of resources have been extensively studied and applied in engineering through sophisticated tools and techniques developed in over 50 years, including a dynamic modelling technique called System Dynamics (see appendix 2 on History of System Dynamics). The market research approach that we employ leverages the rigorous application of this technique and has pioneered its application to customer research.

In our approach, customers are viewed as resources, whose level at any point in time is equal to the number of customers ever won minus those ever lost. The filling and draining of each resource is driven by the in-flows and out-flows, which are referred to as flow-rates (figure 1). Flow-rates can be thought of as electric pumps that are 'pumping' at variable speeds; this speed is influenced by management initiatives (levers).

FIGURE 1
A RESOURCE IS LIKE A 'BATHTUB': ITS WATER LEVEL CAN CHANGE ONLY BY FILLING OR DRAINING OVER TIME



This concept is easily applied in many sectors, such as utilities (e.g., number of subscribers to a telephone provider), financial services (e.g., number of credit card holders) or pharmaceuticals (e.g., number of GPs prescribing a drug). Yet, the approach has also successfully been applied in the FMCG sector, where issues such as portfolio usage, purchase occasions and retail channels make the application of a resource-based view to customers less straight forward.

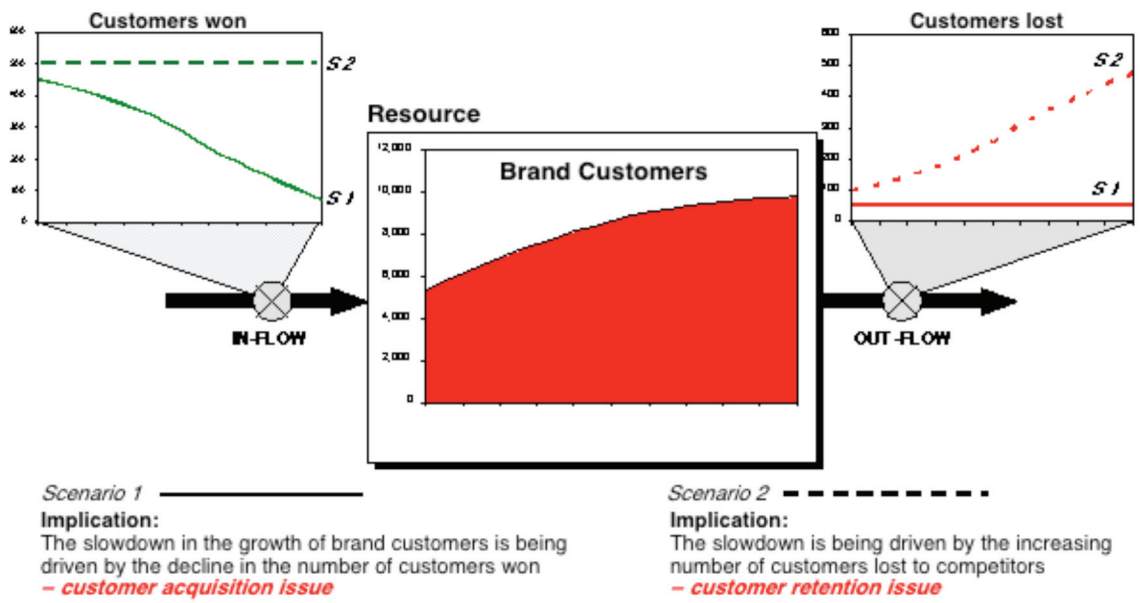
In terms of market research, this means that the same rigour usually applied to quantify and profile the pool of current and potential customers (resource), should also be directed towards their *in-flows* and *out-flows* over time. We believe that understanding and quantifying flow rates is critical because these are the points where management levers have an impact (e.g., a successful customer loyalty program will have a positive impact on the level of brand's customer through decreasing the number of customers leaving the brand, the *out-flow*).

This allows delivering forward-looking and quantifiable recommendations. Consider in fact the following:

1. *Resources are a lagging indicator – flows are a leading indicator.* Take one key brand resource, loyal customers. This is probably the most widely measured entity by any firm across industries, and changes of its level are considered key indicators of brand health. Surprisingly, most firms do not regularly collect information on loyal customers won and lost in a period (i.e. in- and out-flows into loyal customers). And yet, information on customers won and lost, both for your brand and for its key competitors, is critical to gain real insights on the dynamics that lead to changes of total number of loyal customers and to direct the management attention towards the right direction. Figure 2 illustrates two flow-rate combinations (S1 and S2) that generate the same number of brand consumers, but have very different implications on management action needed.

2. *Profiling flow populations allows management to identify the right marketing levers.* Flow populations are composed by individuals that have entered or left a resource in the recent past. Detailed data on these

FIGURE 2
FLOW-RATE DATA IS REQUIRED TO UNCOVER UNDER-THE-SURFACE DYNAMICS



populations, including socio demo, behavioural and attitudinal information, is likely to produce insights into the most appropriate levers, ensuring that the right corrective actions are promptly undertaken.

The next section describes how resources are used to develop a more holistic view – the 'brand resource architecture', and how we populate it with market research to generate actionable and quantified recommendations.

COMBINING RESOURCES TO CONSTRUCT THE 'BRAND RESOURCE ARCHITECTURE'

The brand resource architecture consists of grouping the brand's current and potential customers (but this can be expanded to include other stakeholders, such as retailers and employees) in relevant resources defined by the customers' relations to the brand (e.g., loyals, refusers), and in identifying the key flows connecting these resources.[5)]

Every resource in the brand architecture is constituted by mutually exclusive populations, where an individual can only reside in one resource at one point in time. To clarify this, in the example below we show how the resource based approach can be applied to the well established customer choice funnel and produce a simple brand resource architecture (figure 3).

As illustrated, in the resource-based approach each resource is constituted by the people belonging to that group only (e.g., informed are those that are aware of the brand and understand how it works, but are not convinced of the quality and do not use it). We have also added the cash resource to show how customer behaviour drives another fundamental resource: cash.

Getting the brand resource architecture right is a non-trivial exercise; yet, it is a fundamental step towards the formulation of actionable and quantifiable recommendations as it informs the design of the research and the structure of the dynamic model. The brand team involvement in this process is critical to ensure that the final architecture is a true representation of the brand's dynamics and of its challenges. For this reason we conduct a number of interviews with key individuals, and the final brand architecture sign-off is typically the result of a workshop. The agreed architecture is subsequently validated through market research.

FIGURE 3
TRANSLATING RESEARCH ON CUSTOMER CHOICE FUNNEL INTO A SIMPLE BRAND RESOURCE ARCHITECTURE

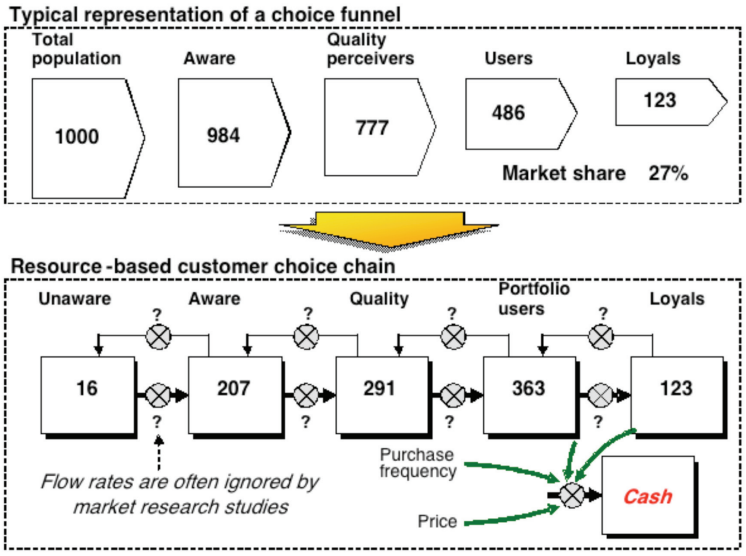


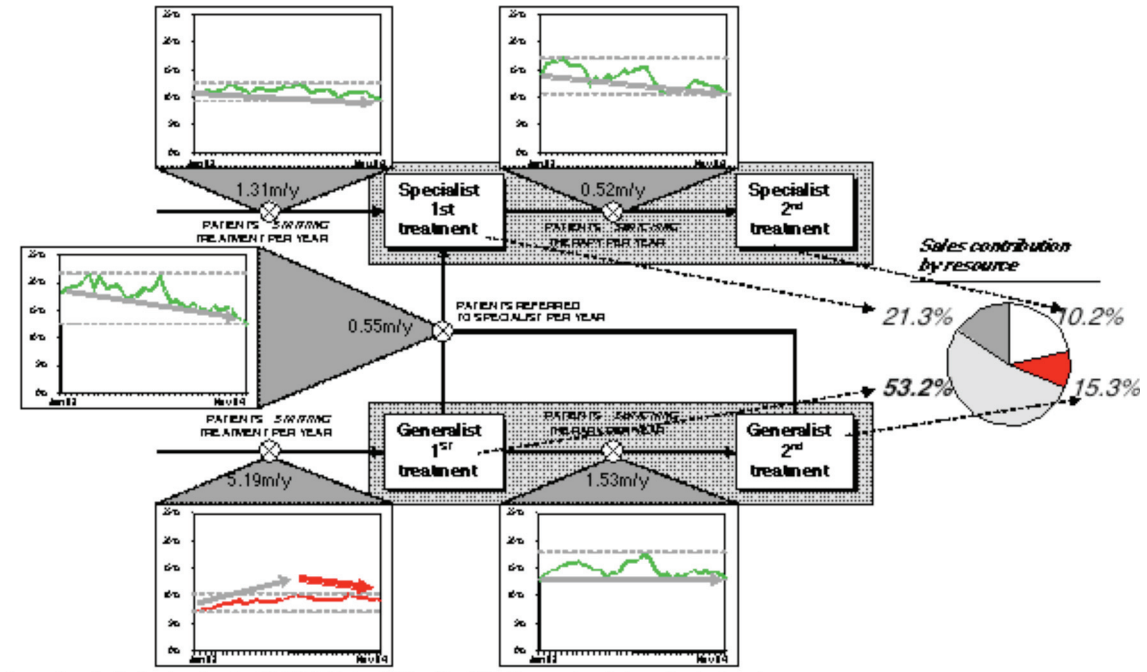
Figure 3 also shows that the typical customer choice funnel ignores flow-rate information, thus inhibiting its potential to generate forward-looking results. This is illustrated with the following example derived from a real case.

In a recent study for a pharmaceutical brand we designed a resource architecture to understand the brand's performance across specialist and generalist prescribers, and the brand's share of choice at different decision points (i.e. as a first therapy for new patients, as a subsequent therapy when first therapy failed). The agreed architecture (figure 4) was then quantified with re-designed and re-processed longitudinal patient data.

Structuring the data in this way and populating this architecture had a profound impact on the client's understanding of the category dynamics. First, they had previously believed that the majority of brand sales (over 70%) were generated after patients were switched from a previous product; however, the data revealed that the opposite was true: over 70% of the brand value was generated from patients on their first treatment. Moreover, the analysis revealed that the brand was generating most value from first treatments prescribed by generalists and not by specialists as it was previously believed.

When we then analysed the flow-rate information we discovered that the brand's share of choice was declining in four out of the five key flows: although the brand had experienced high growth in the past, it was now heading for rough times ahead. This came as a surprise to the client management team. What they did not realise was that past growth was due to a slight improvement in performance in generalist first choice, the most valuable resource, which was therefore masking a decline in performance across all the other flows. However, as performance in this first flow was starting to flatten, it was clear that they were about to see the 'rocks beneath the surface'. This fact-based understanding of the market and

FIGURE 4
FLOW-RATES PROVIDE INSIGHT INTO FUTURE BRAND PERFORMANCE



Source: Longitudinal patient data (n= 10,990,841), Jan 2001 to Dec 2004. Vanguard analysis – disguised numbers

ability to look forward into the brand future allowed the management team to re-write their brand strategy and to undertake early corrective action.

USING THE BRAND RESOURCE ARCHITECTURE TO GENERATE ROBUST PROJECTIONS

Using an analogy borrowed from the digital technology, most market research approaches will claim to present a six-megapixel colour *snapshot* providing a crisp and clear representation of the market. Our approach pushes this to the next level: combining system dynamics and longitudinal data we move from a snap-shot representation of the brand to a high resolution *film* showing what led to the current situation and what it may look like going forward. We do this through building a System Dynamics simulation model, which reflects the structure of the brand resource architecture and is calibrated with data from primary research.

This enables us to answer different – and more complex – client questions, including:

- *Quantify the impact of marketing initiatives* – what is the anticipated impact of proposed marketing initiatives on the brand performance over time?
- *Scenarios and what-if analysis* – what is the range of alternative future brand performances resulting from the unfolding of uncertain but plausible events?
- *Leverage point analysis* – which population flows within the brand resource architecture have the highest impact on brand performance?
- *Benchmark analysis* – how does our brand resource architecture perform compared to the same brand in other countries and to competing brands? And what improvement in the performance would result if we were able to close the gap in one or more parts of the architecture?

Each question allows the client to open a window into their brand's future, and to explore it from different viewpoints.

We will now explain how we quantify the impact of marketing initiatives. For simplicity, we will use a three-step process: *create baseline – map key initiatives – quantify impact.*

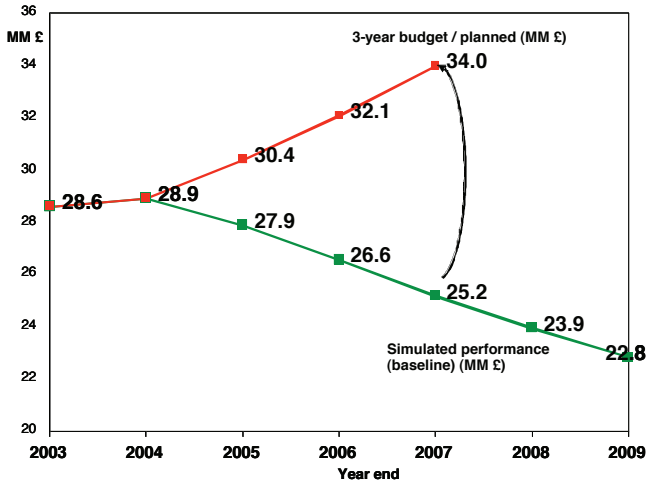
Step 1: Create a baseline

A baseline is the most likely future brand performance, assuming that things continue as is.

The time horizon considered usually aligns with the three to five year brand planning cycle, and depends on the type of initiatives under study and on their timing. The produced baseline is entirely generated by the System Dynamic model, calibrated with data on the resources and flows, and their historical trends.

A baseline is therefore radically different from a trend created by projecting historical performance: our baseline is constructed by trending customer choices, and not by trending forward historical sales performance. Not surprisingly, this often generates significantly different projections, as illustrated in figure 5 derived from a real case.

FIGURE 5
CREATING THE BASELINE BY TRENDING CUSTOMER CHOICES



Creating a baseline is extremely valuable, as it forces the client to elicit assumptions and beliefs about future brand performance. It defines a benchmark, which we then use to assess the sales uplift generated by proposed marketing initiatives.

Step 2: Map the key initiatives

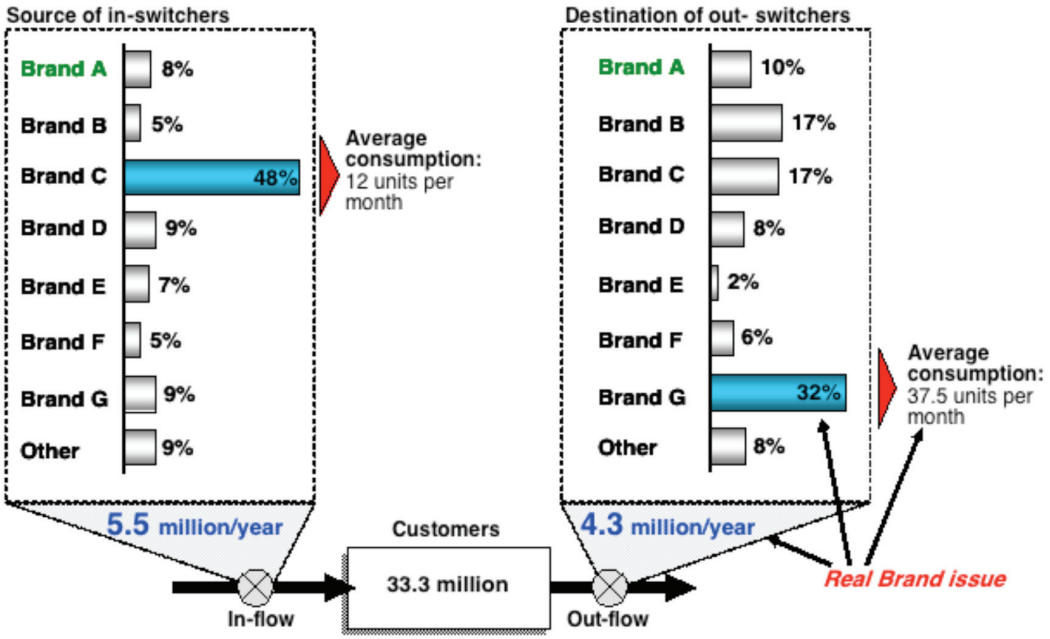
Once clarity has been established on the brand resource architecture, the next step is to pinpoint the most valuable flow populations in the brand resource architecture and to identify their choice drivers. This step ensures that any drill-down analysis on market research information is directed towards high impact opportunities. An example derived from a real case in the healthcare industry will show why this step is necessary.

In a recent engagement we were confronted with a market research study indicating that packaging was a key choice driver in the customer's purchase decision, and that our client's brand was perceived as being poorly differentiated. A proposed new innovative packaging appeared to be the logical solution, and further qualitative and quantitative information from primary research had added more information on how to do this most effectively. But how would this actually help your brand? Would the initiative suffice to increase the number of loyal customers? Would it do this through increased customer acquisition rates, better retention or both? Is it going to generate new users, or just increase the perceived quality of your brand, but with little impact on usage? And what segments are more likely to react to the initiative? These are the kind of questions we asked to our client when we started our work.

The brand resource architecture, populated with market research information, allowed us to answer these questions. Despite a relatively stable level of brand customers over time, the analysis revealed in fact a very high degree of churn for our client's brand, with over 15% of the customer base churning every year (figure 6). Our client's Brand was a 'stepping stone' in the migration from Brand

FIGURE 6

QUANTIFIED ANALYSIS ON IN-FLOW AND OUT-FLOW POPULATIONS REVEALED THAT CLIENT'S BRAND WAS A STEPPING-STONE IN THE TRANSITION FROM BRAND C TO BRAND G



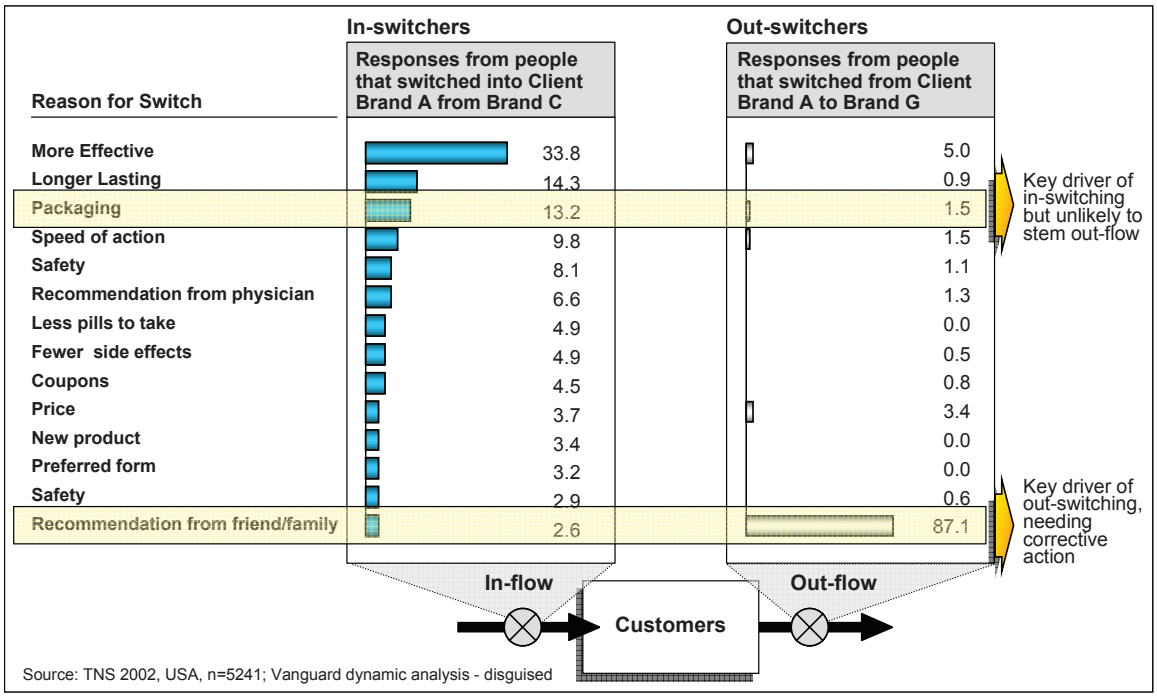
C to Brand G. Crucially, the average pill volume consumption for the in-flow and out-flow populations was very different, with the in-switchers consuming on average 12 pills per month as opposite to 37.5 pills for the out-switchers: the Brand was losing its most valuable customers.

These results clearly indicated that the key issue for the brand was customer retention, and the analysis had to be re-directed to focus on the population of consumers migrating from our Brand to Brand G. The results of this analysis are shown in figure 7. A close examination revealed that the key driver for this population was friend/family recommendations, and that Brand G had recently acted on this key driver through a number of below-the-line marketing initiatives that had successfully generated positive word-of-mouth and brand recommendations.

Based on this information, we were able to conclude that packaging, despite being an important driver of in-switching, would not have helped to address the real brand issue.

Admittedly, most cases are less straightforward; in these instances, often involving many flows and a complex brand resource architecture, to facilitate this step we conduct a leverage point sensitivity analysis using the simulation model.[6)] Moreover, once the key flow populations have been identified, a number of additional analyses can provide a more profound understanding of a specific flow population (e.g., segmentation). These analyses increase the client's confidence in the results of the initiative mapping phase and prepare for a more robust quantification of the anticipated impact of the initiative.

FIGURE 7
ANALYSIS ON CHOICE DRIVERS FOR THE KEY FLOW POPULATIONS SHED LIGHT ON THE RELEVANT INITIATIVES



Step 3: Quantify impact

The final step consists of quantifying the impact of the proposed initiatives on the identified flow rates. The importance of this final step cannot be over-emphasized: proposed marketing initiatives are likely to have a positive impact across the brand architecture (e.g., impacting more than one flow population), and quantifying their overall impact on the brand performance and synergies among them is the only way to prioritise and consolidate such initiatives into a robust action plan, and to set meaningful, time-based, performance targets.

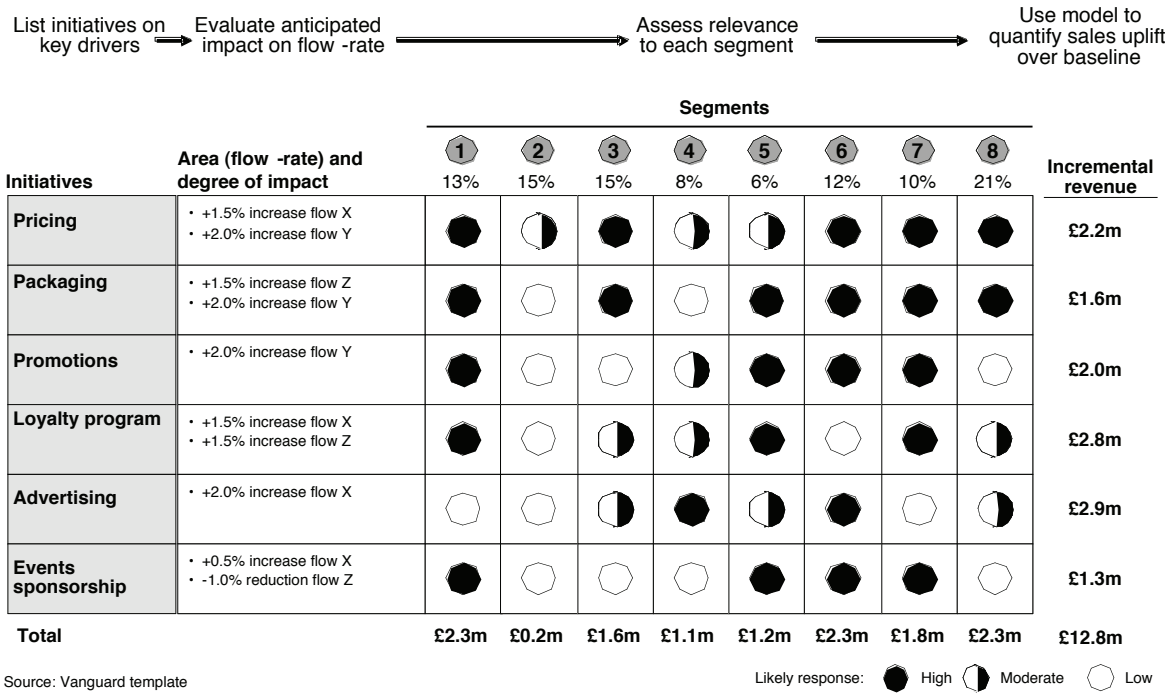
The client involvement in this stage is essential (often in the form of workshops and frequent work sessions), and it entails the synthesis of facts and management judgement.

A number of facts are often available and can be used to narrow down the range of plausible outcomes that an initiative can have on the brand architecture, enabling the brand team to make a more robust and fact-based assessment. This may include competitor benchmarking on key performance metrics, internal benchmarking (comparing the client's brand resource architecture across markets or to its own previous performance), case studies and statistical regression methods based on past brand initiatives and recorded impact on the brand architecture.

Once agreed, this information constitutes the input to the simulation model, so that the resulting impact on sales and profitability can be quantified over time.

Figure 8 shows a disguised example of the output at the end of this process, when a segmentation study has also been conducted.

FIGURE 8
QUANTIFYING THE IMPACT OF INITIATIVES ON DEFINED CUSTOMER SEGMENTS



Source: Vanguard template

CONCLUSIONS

The 'Competing for Choice' approach has been developed through years of research and practice, tested and refined through work with many different industries and brands. This paper summarises the key components of the approach, and introduces a process – not just a modelling technique – that has changed the way our clients do market research and manage their brands.

Our approach does not dismiss other market research approaches – either quantitative or qualitative. In fact, the opposite is true: our experience shows that the 'Competing for Choice' approach creates the strategic context to direct innovative and sophisticated market research techniques into areas where they 'make a difference'. Crucially, it provides a powerful framework and toolkit that pushes the boundaries of typical market research by aligning research design to strategy development.

It takes a fair amount of practice to master 'Competing for Choice'. However, concepts such as 'resource' and 'brand resource architecture' can intuitively be applied, and will immediately be helpful. So, take your brand and start by identifying the key customer resources and their in- and out-flows, then draw them in a piece of paper and see for yourself ...

Footnotes

1. 'Repositioning Research: A New MR Language Model', Virginia Valentine, MRS Annual Conference 2002.
2. 'A fantastic industry in search of a re-launch', David Smith, Research, October 2003.
3. 'Competing for Choice' is explained in the book 'Competing for Choice', Lars Finskud, Vola Press, 2003. 'Competing for Choice' is a registered trademark of Vanguard Strategy.
4. Resources have been a key component in strategy development in the last two decades, and there is an extensive literature on the subject. A practical explanation, with examples and illustrations that are most aligned with the 'Competing for Choice' approach, see K. Warren (Competitive Strategy Dynamics, Chapter 2). A managerial discussion of how resources contribute to competitive advantage – the so-called 'resource-based view' of strategy (RBV) – can be found in many strategy texts (e.g., Grant, 2001, chapter 5). A more extensive treatment of the concepts, including comprehensive coverage of the supporting literature, can be found in Barney (2001, chapter 5). Although recent interest in the topic was awakened in the mid-1980s (Wernerfelt, 1984), the fundamental importance of firm resources can in fact be traced back over 45 years (Penrose, 1959).
5. A more detailed explanation of the 'brand resource architecture' and real cases examples can be found in 'Competing for Choice', L. Finskud, page 70.
6. For an explanation of leverage point analysis and an actual illustration for a real case see 'Competing for Choice', L. Finskud, page 79-82.

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APPENDIX 1
IMPLICATIONS OF THE 'COMPETING FOR CHOICE' APPROACH ON DATA COLLECTION

The nature of the consumer data that needs to be collected in order to apply the 'Competing for Choice' approach does not differ significantly from standard data typically purchased for modeling, such as penetration, key purchase or consumption drivers, gains & losses and switch data. However, the key requirement is that the collected data can be used to 'populate' the brand resource architecture, that is to quantify and profile (e.g., demographics, attitudes) the population in each stock and flow in the architecture. This key requirement has important implications on data collection, which for simplicity can be grouped as follows:

• **Large sample size** – the size of the sample is directly proportional to the complexity of the brand resource architecture, and tends to be higher than what is normally required. The complexity of the brand architecture depends on a number of parameters, including the number of stocks and flows, the number of consumer segments, and the number of competing brands that are included. Typically, a brand resource architecture will have at least four stocks and six to eight flows, and the client will want to replicate the analysis for two or three consumer segments and two to four competing brands: the minimum sample size in this case would be 2,500.

• **Bespoke recruitment process** – in certain categories, such as pet food and baby foods, the brand resource architecture may be designed to reflect sequential life stages for the consumer. In these instances, in addition to the standard demographic requirements, the recruitment will also reflect these life stages; for instance, in a recent case in the formula milk category, that recruitment was done to ensure that both mums with newborn babies and with six month old babies were sufficiently represented in the sample: this ensured a robust understanding of consumer choice pathways and minimised the risk of bias in responses (the motivations for brand 'choice' and 'switch' is fresh in the consumer's mind.

• **Complex routing** – Quantifying and profiling the different populations in the brand resource architecture is not as straight forward as it may appear, with implications on the length and complexity of the questionnaire, and on the data processing required. For instance, in order to be belong to the flow population from Brand A disloyal to Brand A loyal, each individual will have to satisfy the following conditions:

- Be a current brand A loyal user;
- Have been a previous brand A disloyal user immediately before becoming a loyal user;
- Have made this transition within a set time frame (usually between one and three years, depending on sample size and degree of churn in the category)

• **Resource-based table specifications** – Unlike typical research studies, which tend to focus on standard demographics only, our standard banner will include stocks and flows populations as column breaks.

APPENDIX 2
BRIEF HISTORY OF SYSTEM DYNAMICS

System Dynamics originated in the 1960s from the work of Jay Forrester and his colleagues at the MIT. The methodology is based on feedback control theory, which has been applied and refined in engineering over the past 150 years. The first extensive text on System Dynamics was Industrial Dynamics (Forrester 1961), which is still today a significant statement of philosophy and methodology in the field.

One of the best-known early applications was Forrester's (1969) Urban Dynamics. It explained the patterns of rapid population growth and subsequent decline that have been observed in American cities like Manhattan, Detroit, St. Louis, Chicago, Boston and Newark. Forrester's simulation model portrayed the city as a system of interacting resources, including industries, housing and people.

One of the most widely known applications of system dynamics appeared a few years later in a best-selling book entitled *The Limits to Growth* (Meadows et al, 1972). This study looked at the prospects for human population growth and industrial production in the global system over the next century. A computer model was used to simulate resource production and food supply to keep up with the growing system.

A key milestone publication exploring the potential applications of System Dynamics in business is *The Fifth Discipline* (Senge et al 1994). After this, there have been a number of publications on applications of System Dynamics in business areas. The most successful applications of System Dynamics in business, as well as the underlying theory, have

recently been summarized in Business Dynamics (Sterman 2000), which is considered the best textbook for business practitioners desiring to learn more about the methodology.

Kim Warren, of London Business School, has recently pioneered the application of System Dynamics to business strategy. His work culminated in the recent publication *Competitive Strategy Dynamics* (Warren, 2002).

Lars Finskud, founder and director of Vanguard Strategy, has described the approach in the book *Competing for Choice* (2004), where a number of case studies and practical applications are presented. *Competing for Choice* introduces the reader to the theoretical foundations or the market research approach that is presented in this paper.

Today System Dynamics is taught in a number of institutions and business programs, including MBAs, and the span of applications has grown extensively and now encompasses work in:

- Corporate planning and policy design
- Public management and policy
- Biological and medical modeling
- Energy and environment
- Theory development in the natural and social sciences
- Dynamic decision making
- Complex nonlinear dynamics

Following is a (not comprehensive) list of reputable web resources on System Dynamics

- www.vanguardstrategy.com
- www.competingforchoice.com
- www.strategydynamics.com
- www.systemdynamics.org
- web.mit.edu/sdg/www/resources.html
- www.london.edu/facultyresearch4411.html
- www.public.asu.edu/~kirkwood/sysdyn/SDRes.htm
- www.sd3.info/sdbookmarks.html