

Behavioural Science: The Answer to Innovation?

Behavioural Science is leading the charge to provide innovators with a long-overdue method to tackle their problems — in a way that is measurable, observable and testable.

by Kelly Peters

FEW PEOPLE WOULD ARGUE that innovation is vital to every organization's growth and competitiveness. Yet most are still struggling to put it into practice. Consider this typical example. Recently, my colleagues and I worked with a large bank to improve credit card repayment behaviour. One test we proposed was very simple: print the bill statements on coloured instead of white paper.

The rationale? After a customer opens a bill, it often gets buried in a large stack of paper, and as a result, they lose track of it — as well as when it is due. We thought a good hypothesis to test was one that increased the visibility of the bills. There is good research supporting the role of colour in increasing attention and in turn, memory, and we wondered if it might work here. This experiment would provide a low-cost intervention: a simple, yet contextually novel idea.

Early into implementing what we believed would be a simple project, we hit a roadblock: The manager in charge of

bill statements rejected the idea because the cost of coloured paper was higher than for white paper. While it was insignificant on the basis of individual sheets, he argued that when deployed across billing cycles and millions of customers, it would add significant cost. He outright refused to approve the roughly \$600 increase in paper costs to run the experiment for a single billing cycle.

When I relayed this story to the CEO, she was shocked. This was not consistent with the values she espoused. While she wanted her team to be fiscally responsible and accountable, she had never indicated that they should be 'penny pinchers'. She had hoped that they would be ready, willing and able to engage in experiments and test new ideas — in other words, to be innovative.

What can we make of this mismatch between the billing manager's behaviour and the attitude of his CEO? Economist



Behavioural Economics offers ways to make innovation both tangible and measurable.

Joseph Schumpeter's research on creative destruction points to a cultural cause for this resistance. Regardless of industry, people struggle with having a 'paradoxical accountability' — for *maintaining* systems and ensuring their smooth operation, while simultaneously being expected to *disrupt* and improve those systems. In this case, the billing manager was under tremendous pressure to ensure that the system was operating predictably and accurately, with costs managed and errors minimized. And to that end, he had little incentive to champion innovations to the system.

This paradox is one of the key reasons organizations struggle to be innovative. If businesses are unwilling to invest in something as simple as a different kind of paper, what can be expected when they are presented with ideas that are far more transformational?

The good news is that Behavioural Economics offers ways to make innovation both tangible and measurable. My colleagues and I have developed an approach called the BEworks Method™ that is grounded in the scientific method. While its application is the cornerstone of our practice, it is no longer a trade secret. In this article — and in my upcoming book — I will share it with readers so that organizations everywhere can begin to understand and benefit from it.

Following is a summary of the three-phase, five-step approach you can follow to take Behavioural Economics from theory to practice — and increase your organization's aptitude for innovation.

PHASE ONE: RESEARCH

STEP 1: DISCOVERY. The first step is an exercise in curiosity, encouraging you to ask questions about the challenges you face as an organization. Start by gathering the pre-existing data regarding your understanding of 'the problem at hand'. You will need to

think scientifically from the outset. To do this, consider the challenge in psychological language, framing the problem as a set of measurable, observable behaviours, subject to empirical questions (i.e. hypotheses that can be tested by attempting to falsify them), and with previous knowledge and assumptions judged based on the quality of evidence. This entails asking, 'Is the information we possess anecdotal or from a more robust source?'

Take the case of a large bank that lost client trust following a headline-grabbing incident. Frontline employees had been asked to engage in 'opportunity spotting' with customers. When a customer came into the branch for a transaction, if the teller saw an opportunity for a new approach, product or service, they were encouraged to communicate it to the client. For example, if the client had a significant amount of idle cash sitting in her account, the teller might recommend that she meet with a financial advisor to put the funds into an investment account. To encourage staff to be proactive, sales targets were established and employees were rewarded for achieving revenue goals.

Unfortunately, the program did not go smoothly. Some staff felt pressured into coercing customers into products — in some cases, without their knowledge or consent. The leadership of the bank did not intend for staff to feel pressured, nor for customers to be negatively affected by a program that started out with a noble intent. While other steps were taken to rebuild the program and expectations with employees, we were asked to identify steps that they could take to repair the breach of trust with customers.

In our first meeting with the leadership team, we gave them each a sheet of paper and asked them to write down their definition of trust. As soon as they grabbed their pens, we could see on their faces that this was not an easy task. We all have a strong intuitive understanding of what trust is, but as this team shared their personal definitions, none of them were the same — nor

were they particularly comprehensive, and certainly not aligned with definitions used in research focused on understanding trust scientifically.

We then asked people to write down how they would *measure* trust; specifically, what behaviours ought they look out for that would indicate that customers had (or did not have) trust in the bank? This prompt was powerful because the leadership team began to realize that without measurable, observable behaviours, there would be no way to know if the strategies to increase trust were effective or not — or if they were backfiring and doing even more damage.

In sum, the goal in this step is to create an agreed-upon operational definition around what your organization is trying to change, and how you are going to measure it. Achieving clarity on this is key to the scientific method. With measurable, observable behaviours, you can gauge the effect of your tactics and apply them more broadly — or stop investing in them.

STEP 2: BEHAVIOURAL DIAGNOSTICS. Having framed your goals as measurable, observable behaviours, you are now ready to dive into diagnosing behaviour. Similar to a doctor ordering diagnostic tests and consulting the latest guidelines and research about their patients' symptoms, this is where you will need to identify both the internal factors (i.e. biases, beliefs, attitudes, experiences) and external factors (i.e. political, economic, social, environmental) that are influencing people's decision-making. To do this you will need to involve experts such as psychologists who are familiar with the research on decision-making biases. Exploratory research can be supplemented with surveys and experience sampling to further refine your knowledge of the challenge.

Let's look at a sample of the insights from a behavioural diagnostics report we prepared for an insurance company that

wanted to increase sales of insurance. We know from academic research that consumers struggle to make sound decisions about their insurance coverage because of the following psychological biases and barriers:

- 1. Biases in the trade-off between time, benefits and cost.** For example, hyperbolic discounting, whereby consumers mistakenly prioritize the short-term cost of the insurance premium relative to the benefits of long-term coverage.
- 2. Biases in statistical judgment.** In these cases, consumers misestimate the probability of events (e.g., overestimating in the case of rare/unique/salient events and underweighting in the case of more common events).
- 3. Cognitive limitations.** Complexity, difficulty, preference uncertainty, and uncertainty over decision goals lead to behavioural outcomes, including procrastination. In the context of insurance, this manifests as delaying a decision to seek additional information.

For these and other reasons, we know that instead of a careful calculus to help them evaluate insurance options, consumers tend to be overly price sensitive. In the face of complex information, they often substitute an easier question (i.e. 'How much does it cost?') in place of more difficult, yet meaningful questions like 'What are my insurance needs?' and 'Does this product meet my needs?'

The problem is that these insights — which are designed to help leaders understand how people think about insurance — are next to impossible to get from customers themselves. That's because they are not typically in a position to either recognize or admit the biases that inhibit their ability to recognize their need



When faced with complexity, we often substitute easier questions for more difficult, meaningful ones.

for insurance. ‘I prioritize my short-term needs over my long-term needs, and therefore I will avoid lower, short-term costs at the expense of greater, long-term benefits. Further, I overestimate the likelihood of rare events (like terrorism) impacting my health, but underestimate the impact of my smoking. But really, it’s all overwhelming and so I am going to procrastinate on thinking this through and will simply find what is cheapest because prices are easiest to compare’ — said no customer, ever.

PHASE TWO: STRATEGY

STEP 3: IDEATION AND PROTOTYPING. You have framed the problem-to-be-solved with measurable, observable behaviours. You understand what internal biases and external factors are influencing your customers’ choices through their journey. You are now ready to move into identifying the interventions that will influence consumers towards the desired behaviours. If it is possible, at this point your team will benefit from involving behavioural change experts who are familiar with interventions research.

As you identify an idea of what might change a particular behaviour, you will need to frame it as a hypothesis so that it can be tested (i.e. supported or falsified). In the sciences, a hypothesis is a statement that expresses the effect of our intervention or action (called an Independent Variable/IV) on our challenge behavior (or the Dependent Variable/DV). This statement is pitted against a null hypothesis, which states that no causal relationship exists between the variables, or in other words, the intervention had no impact on the targeted outcome. Strategies or hypotheses can be drawn from diverse sources, including intuition, experience and empirical evidence.

A recent example is our work with a large Canadian insurance corporation. With our help, they set out to transform how home insurance was being sold. In particular, they wanted to know how to apply behavioural principles to increase the number of customers purchasing home insurance, both online and over the phone.

We identified a variety of promising intervention points and worked with them to develop and test a new choice architecture that included attention to how many products were offered, at what price point, using what brand names, and which product attributes and benefits were highlighted. We implemented a number of behavioural tactics, including:

1. **Co-production** — that is, getting customers involved in building the offer;
2. **Operational transparency** — showcasing the effort that the company puts into making the product recommendation; and
3. **Use of a visual bias for a customer’s benefit**—in this case, using the ‘leftward bias’ by placing the product that best fits the client’s needs into their left visual field on the online channel.

In addition, our work included developing a new way to speak to clients in the call centre using scripts that incorporated our ‘nudge tactics’ (such as co-production and operational transparency).

Your team will likely generate many ideas that will need to be sorted and ranked through a Prioritization Matrix (see **Figure One**). This will help you select ideas that are predicted to have the biggest behavioural impact and de-emphasize the ideas that are more ‘status quo’. It will also allow other stakeholders in the organization to weigh in on factors such as operational risk, cost, feasibility and strategic impact.

PHASE 3: EXECUTION

STEP 4: BUILD AND EXPERIMENT. At this stage, your teams will need to design experiments that test your hypotheses. To build a solid experiment, you will need to adhere to experimental design requirements standardized in the sciences such as using appropriate controls, randomizing your population unless you have a

The Prioritization Matrix Worksheet

Expected Behavioural Impact, Strategic Impact and Feasibility: 1=low, 2=medium, 3=high
Investment (Cost) and Investment (Time): 1=high, 2=medium, 3=low

Testable Intervention		Expected Behavioural Impact	Strategic Impact	Feasibility	Investment (Cost)	Investment (Time)	Total
Behaviour 1	Hypothesis 1						
	Intervention 1A						
	Intervention 1B						
	Intervention 1C						

FIGURE ONE

priori hypotheses about particular segments which would then require you to stratify your population, and ensuring a robust sample size. We recommend that you conduct some testing in an easy-to-measure channel (e.g. digital) first to test the hypotheses before deploying the experiment in harder-to-measure channels (i.e. human-centric).

The gold standard for experiment design is the randomized control trial (RCT), in which participants are randomly assigned to either a control group with no intervention/IV or to the experimental group where you introduce an IV to see if it has an effect on the DV. Again, the ultimate goal here is to collect relevant data to test the strength and validity of your hypothesis and compare it to the ‘null’ hypothesis.

STEP 5: CHOICE ARCHITECTURE. This is where you learn the quantifiable impact of your hypotheses on outcomes and use it to design your choice architecture. Data analysis will help you determine what worked, what didn’t, at what magnitude, the impact on secondary measures, and so on.

Recall the example with the insurance company. Our nudge-laden script led to a 17 per cent increase in comprehension relative to the control condition, and customers also experienced a substantial increase in perceived product value. They reported being willing to pay \$2.77 more (a three per cent increase, on average) for the recommended product after speaking with an adviser who used the nudge script, compared to the current nudge-free script. Also notable, we recommended that our client send customers a visual aid by email to help make the process more transparent and the product features more concrete. This visual aid led to a 30 per cent increase in product purchase intent relative to the control condition.

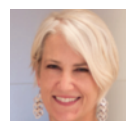
Our research showed that the operational transparency nudge improved customers’ comprehension and made them more willing to reach out to the insurance company. Improved customer comprehension was also found to be associated with

low levels of negative emotion towards the insurance company, as well as more realistic expectations about the shelf-life of the insurance product (i.e. that the policy is a ‘living and breathing’ document and that it needs to be maintained and nurtured or renewed).

We learned that co-production adds too much time to the online process, and though the results were weak in the online experiment (i.e. the influence of the IV on the DV was not very large), the idea is being ported over and scaled up at the insurer’s call centre. We continue to support this company as it assesses the pre-intervention/post-intervention impact.

In closing

While innovation is rightfully treated as a critical element in every organization’s forward momentum, to date it has lacked a tangible method with repeatable steps, clear guidelines and reliable outputs. The BEworks Method™ provides a proven process for uncovering powerful insights into consumer decision-making and developing creative interventions to change behaviour. My hope is that it will make innovation an ongoing reality for your organization. **RM**



Kelly Peters is the CEO of BEworks, which she co-founded with Duke University Professor and best-selling author Dan Ariely and former Rotman School Professor Nina Mazar. BEworks joined the kyu collective of companies in January 2017 alongside IDEO, Sid Lee, and others in an effort to harness creativity to propel the economy and society forward.