Ashridge Strategic Management Centre

Members Meeting

15th May 2019

Minutes of Meeting

In attendance

David Bowerin	Independent Consultant, formerly of Citigroup
Niels Broens	Shell
Paul Griffith	Ashridge
Alex Kerst	BP
Terry McCormick	National Grid
Philip Meyers	ABF
Felix Naumann	Siemens
Mark Osborne	Home Office
Adam Prince	Shell
Stein Rasmussen	SBM Offshore
Ross Rattray	Babcock International
Sarah Sandle	Rolls Royce

From Ashridge Strategic Management Centre

Stephen Bungay
Andrew Campbell
Rebecca Homkes
Jo Whitehead

Rebecca Homkes and Stephen Bungay: Navigating in Uncertainty – How to Make Better Decisions in an Uncertain World

Stephen and Rebecca have been working on this topic with Anthony Freeling, who was unable to attend because of his duties as President of Hughes Hall, Cambridge. The frameworks and approaches have been discussed with a number of clients, many of whom have also begun to put some of them into practice.

<u>The Nature of the Problem</u>

Stephen started the presentation by citing an index of economic policy uncertainty created by three US academics which suggests that economic uncertainty has been increasing due to factors such as inter-connectedness, polarization, and an increasing rate of change, and that this leads to a decline in economic growth and employment. He suggested that this analysis, whilst plausible, may not be completely robust because whilst the uncertainty index reached unprecedented levels in 2019, US GDP growth has risen and unemployment has fallen.

The implication is that some firms are thriving despite, or perhaps even because of uncertainty. The problem may therefore be at a more granular level, in some common dysfunctional reactions to it – believing that one can make predictions, which results in delusion, or waiting for more information, which results in paralysis. Uncertainty is both a real state of the world, which means you cannot make good predictions, and also a state of mind which produce anxiety, which makes it hard to make good decisions.

The issue is therefore how to make good decisions when you cannot make good predictions.

One Member suggested that the level of uncertainty faced by businesses is at least in part a function of the industry lifecycle. Start-ups are highly uncertain, then things stabilize, and some mature businesses are quite predictable. They have examples of each in their portfolio. The implication is that it would be useful to have a framework for how and why the levels of uncertainty vary over time in particular industries or situations, and the lifecycle is one way of doing this. (Stephen and Rebecca later introduced the 'uncertainty matrix' as a way of categorising different levels of uncertainty.)

To handle uncertainty better, Stephen and Rebecca argued that we need to adapt three things:

1. Our attitude in thinking about uncertainty
2. Our approach to setting direction
3. Our decisions as we take action

1. <u>Our attitude in thinking about uncertainty</u>

They suggested two main attitude changes.

The first is to avoid delusion by recognizing that uncertainty is real, to stop trying to make predictions and instead to maximise the relative rate of learning.

An example of the former would be Britain's most successful fund manager, Terry Smith, who refuses to make any macro predictions about the economy and warns his investors not to take seriously anyone who tries to. An example of maximizing the relative rate of learning would be the Mercedes F1 racing team which has institutionalised this principle. For example, they seek to be able to carry out more windtunnel tests in any given period than their rivals. Each season follows a learning curve of performance improvement, and so despite being behind their rivals at the beginning of both of the last seasons, they caught them up and then surpassed them over the course of the summer.

The second change in attitude is to avoid paralysis by not being fearful of the unknown and recognize that whether the effects of many unknown events is good or bad depends at least in part on how you react to them.

For example, when IKEA opened their largest store in Stockholm in 1965, it was overrun by 18,000 customers. In desperation, the store manager allowed customers to pick up goods directly from the warehouse and take them to the tills. When he apologized to IKEA founder Ingvar Kamprad a few days later, Kamprad decided to introduce customer warehouse access as a standard feature in all IKEA stores. Although much attention is currently given to the negative economic effects of the Brexit uncertainty, firms have taken action by hedging, rebalancing resources, planning for the worst case or indeed exploiting the weakness of sterling to grow exports.

There are barriers to being realistic about uncertainty, including psychological biases, internal and external pressures and the constraints imposed by organisational processes, but some companies are able to deal with them more successfully than others, as illustrated by a comparison of the best and worst performing banks during the financial crisis. Best and worst performers differed in their governance, attitude to risk management, risk policy, culture and leadership. One study suggested that the best performers during the crisis had sacrificed some performance before it, though one member questioned the validity of the study. The best performers adopted a range of different approaches that saw them through by avoiding steps that would make them vulnerable, without being able to predict how that vulnerability would be exposed. It reflected an attitude made public by Shell in September 2017 which embraced 'minimising maximum regrets' as a principle of planning.[1]

At one member bank the practice was to discuss where stability is beginning to erode. Some parts of the business were inherently more volatile than others. In their case the consumer bank had always been a pillar of stability, but even there early warning signs could be detected.

In response to a question, Stephen clarified what kind of prediction led to delusion. The problem is not trying to identify long-term shifts or emerging trends that are shaping the future, but making single-point forecasts. The distinction between precision and accuracy may be useful here. Precision is a measure of statistical variation. Accuracy is the closeness of a measurement to the true value. Whereas a precise archer may group a set of arrows tightly together at the edge of the target, an accurate archer will group their arrows at the centre of the target, even though they may not be very close together. In high uncertainty, attempting to achieve precision becomes a path to delusion. When setting direction, we still need to aspire to accuracy in terms of coming as

[1] See Thomas Stanton, 'Why Some Firms Thrive While Others Fail', OUP, 2012.

close as we can to the truth, and steadily reducing the pool of errors in which we will inevitably operate.

One Member observed that at his company discussion of the ranges used in investment decision making had led to progress in avoiding point predictions of financial performance. Projects often have quite customized approaches to risk which runs the risk that project promoters present favourable assumptions for their projects.

Another Member commented that the idea of minimizing maximum regret can make it feel as if you are not in charge of your destiny – you are hedging your risk rather than going for opportunities. The way it should work in practice is to help people take a balanced view of maximizing upsides along with minimizing downsides.

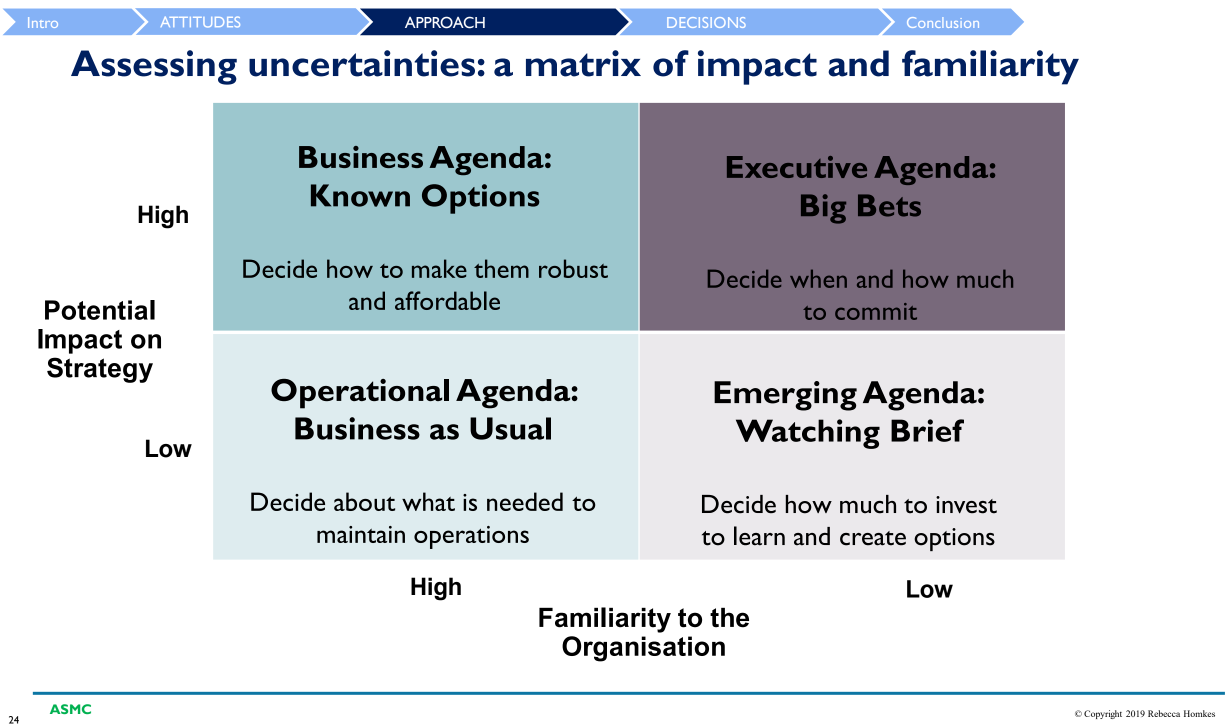
Another Member observed that even if you present scenarios, the question always comes back – which do you think is most likely? Whilst this is a natural question to ask, experienced practitioners emphasis that no probabilities should be assigned to any scenario. Their purpose is to open up thinking and to seek to make decisions that will result in an acceptable outcome under any plausible scenario.

2. Our approach to setting direction

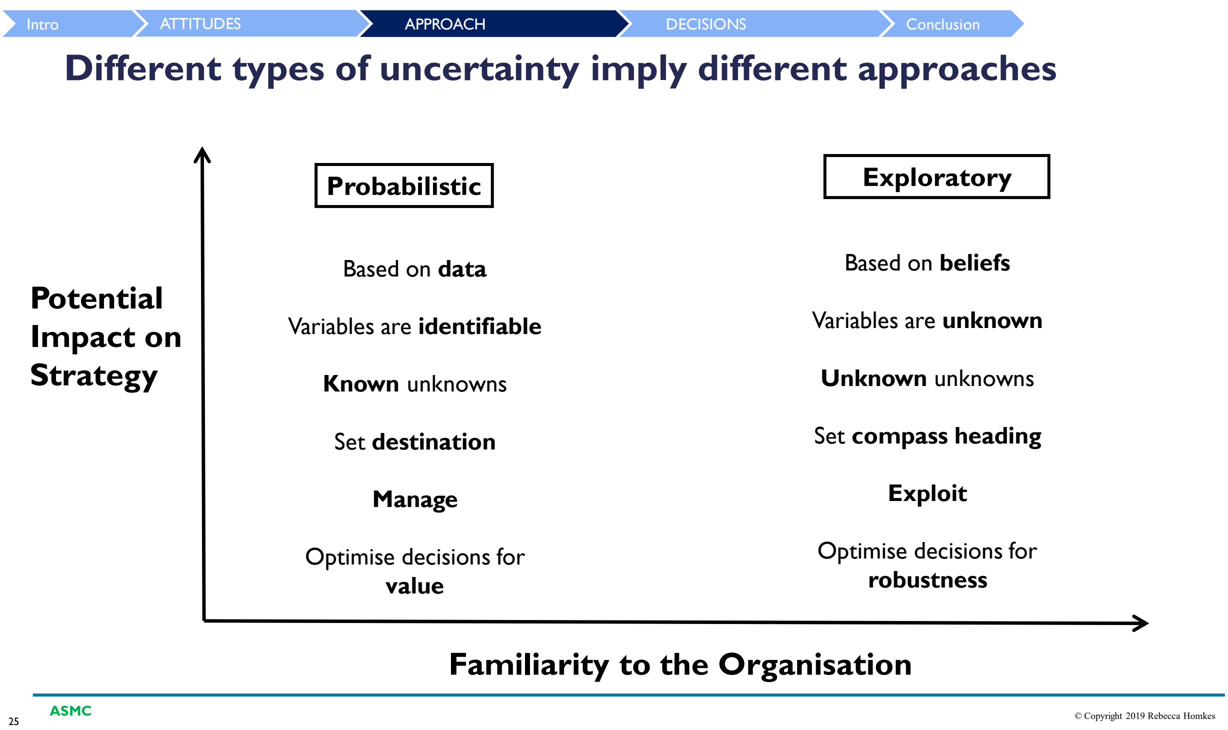
Rebecca introduced a method of initial orientation by observing that most commentators agree that adopting the right approach depends on assessing the nature of the uncertainties being faced. They suggest various ways of categorizing the environment (e.g. as complicated or chaotic, or according to its degree of predictability, or as requiring classical, adaptive, shaping or visionary strategies).

This is eminently sensible, but the problem is that, by the authors' own admission, getting this diagnosis right is what managers find to be the most difficult step.

In looking for a more useful way of assessing uncertainty, Rebecca suggested considering two dimensions: the *familiarity to the organization* and the *potential impact on strategy*, as shown in the 'uncertainty matrix' below:



Companies routinely deal with some kinds of uncertainty and have approaches and processes in place for dealing with them, some of which are specific to the industry. Here, on the left-hand side of the matrix, the past can serve as a guide, relevant data is available and so strategy can *probabilistic*. Other uncertainties are posed by unprecedented situations or new technologies and represent discontinuities. Here, on the right-hand side, the past is not a guide to the future and there is no relevant data, so strategy has to be *exploratory*:



Some familiar uncertainties are part of day-today operations, (e.g. updating oil refinery technology, testing pharmaceutical compounds) whereas others are less frequent and higher impact and so form part of the business agenda (e.g. drilling new wells, taking a compound to Phase Three).

Of the unfamiliar ones, only some demand decisions now. Some are emerging and require a watching brief, others involve big bets, and should be on the executive agenda. The list on the right would include AI, the rise of China, driverless cars and social media. The matrix should be understood as dynamic. Some (like China and AI) have been emerging for decades and some (like driverless cars and social media) only for a few years. As it becomes clearer that their impact will be considerable - even though the nature of that impact may remain uncertain – they migrate up. In some businesses, using social media in marketing and elements of artificial intelligence in operations have already become routine, in others they still have the potential to challenge the foundations of the existing business model. Each quadrant of the matrix is characterised in terms of where the agenda should lie. In some cases, by identify and addressing emerging uncertainties early enough, it may be possible to avoid the top-right box entirely and move across to the top-left.

After this introduction, members broke into three groups to discuss the implications and exchange experiences.

Points which emerged from the discussions included:

- It may not be right to label the top-right box 'big bets', as that is more about actions than uncertainties and taking a "big bet" was not always the correct action. The term has emotional connotations and suggests recklessness.

- Legacy makes a difference. If you have made some big bets that failed then you will respond differently to if the big bets were successful. One Member company had made a 'big bet' after the oil price crash of 2014. Perhaps a different approach is required with different "legacy cultures".

- Sometimes uncertainties and decisions in the bottom right are treated as if they are in the top right – they are over-governed.

Having assessed the nature of the uncertainties, the next step is to take a fix on the position of the business. When the relevant variables are known and data is available, options can be assigned probabilities. But in exploratory strategy there is not enough data to do that, so the position of the business has to be based on beliefs.

Beliefs are plausible, testable hypotheses which create a framework for decision-making. They should be made explicit and debated and be subjected to re-appraisal and possible revision at appropriate intervals. Sound beliefs embrace fundamental dynamics and systemic patterns, such as Moore's law, technology substitution patterns or experience curve effects. Such things provide a window on the future which can be accurate without being precise, as encapsulated in the saying, attributed to Shell, that 'when it rains in the hills it will flood in the plains'.

Terry Smith has expressed the beliefs which guide his approach to fund management as 'Buy good companies, don't overpay, do nothing'. These principles are put into practice by applying a lot of analysis (e.g. defining a 'good company') and disciplines (e.g. to minimise churn).

In response to the question whether beliefs are just assumptions, Rebecca explained drew a distinction between beliefs, assumptions and trends and noted that identifying and clarifying each is critical to a good strategy assessment. *Trends* are the main developments and forces shaping the business. *Beliefs* are an interpretation of the implications of trends - they are our take on how the industry works now and what will drive advantage in the future. A company might hold a set of beliefs about the business for some years, across several planning cycles. *Assumptions*, on the other hand, are premises or hypotheses upon which specific choices are based.

One example of a company which makes explicit use of beliefs at different levels of is Spotify, which distinguishes them from the data describing trends and particular assumptions that lie behind actions they take.

Spotify has a goal setting process it describes as its 'rhythm', which is driven both top-down and bottom-up by sets of beliefs. At the highest level, company beliefs (such as 'it's a marathon not a sprint', 'whoever learns fastest wins') are translated into a set of 'North Star' goals which are translated into 2-year goals and turned into action by placing a set of 10-12 'bets', which are projects. Potential 'bets' are generated bottom up in a process called DIBBs, in which 'data' (usually derived from experience at the user interface) yields 'insights', which inform 'beliefs' that then result in bets. Bets are ranked in a 'stack' which is itself informed by the North Star goals and resource allocation decisions made.

An example of the DIBB process might be:

> Data – the number of mobile users is growing as desktop usage declines
>
> Insight – mobile will overtake desktop as a source of music
>
> Belief – for long-term survival we need to become mobile-first
>
> Bet – hire mobile developers, re-train desktop developers

One member mentioned an interview with Richard Rumelt in which he suggests that you have to move before you are comfortable. To check you have the right beliefs you need to have "look outs" that look out for phenomena that you might be missing.

Having orientated yourself by assessing uncertainties and articulating your beliefs, exploratory strategy then involves setting direction by determining a compass heading and pace.

Rebecca explained that in some circumstances, for example when preparing for an IPO, it is necessary to set direction by determining the *destination*, a clear end-point you wish to reach, stipulating the revenue, financial characteristics, customer base, product range etc. to be achieved at a specific point in time.

However, in radical uncertainty, the future is too unclear to enable you to set the end-point with any degree of confidence. Instead, it is possible to set direction by determining a *compass heading* which will describe moves to be made without specifying the end-state to be reached (i.e. 'Go West' rather than 'Go to Los Angeles'). The compass heading could cover what capabilities we need to build, no regret moves we could make to open up future options and steps that need to be taken or initiated now in order to be competitive in any plausible future. These may be expressed as no-regret moves.

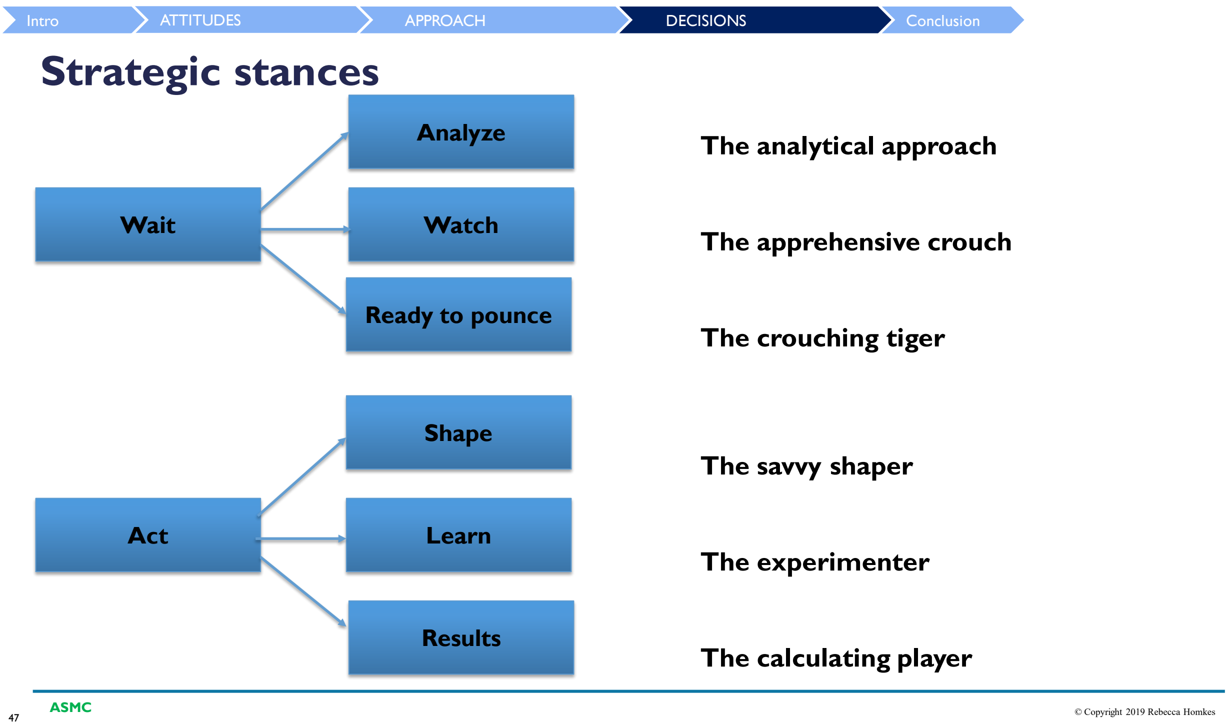
One question was asked about whether a compass-heading could be as motivating for people as a clear view of a long-term destination. Both Rebecca and Stephen replied that in their experience, it could, when the circumstances demand it. Rebecca mentioned that leading change in uncertainty can in fact be a more powerful motivator than trying to reach a particular destination. When the present is very turbulent, a long-term vision can seem very abstract or unrealistic and a clear compass-heading can usefully focus effort on what needs to be done now. Making current priorities clear can be very motivating when people are themselves uncertain or confused.

3. <u>Our decisions as we take action</u>

When the general direction has been set, we will continue to make decisions as we execute. Rather than a single plan determined in advance, strategy becomes an evolving sequence of decisions which build on each other. One could say that it is deliberately emergent.

Rebecca introduced the idea of strategy stances which are decisions to wait or to act.

Waiting can be a good option if it is a deliberate decision to prepare to take action without yet committing. You can wait in order to do more analysis, or watch developments to gain understanding, or to get ready to pounce (building capability so as to be ready to make a move). One may choose to act in order to shape the environment, to learn or to get results:



Stephen talked through the example of Ricoh, where the core copier business is not only stable but unusually predictable. However, it is in terminal decline, so they are funneling the cash it generates into new business ventures which exploit their underlying capabilities. This involves moving into areas which are highly uncertain. They have outlined some core principles and identified general areas of opportunity e.g., food packaging, décor and textiles, but they do not know what the end-point will be. Instead they have set up a 'Customer Experience Centre' which has a portfolio of 200 projects, and is designed to experiment and learn.

One example of how they are deploying their expertise is in inkjet printing in the textile industry. Ricoh has recently announced a partnership with a small company which produces machines to color threat using Ricoh ink. Having spent some three years learning about what to them was an unfamiliar industry, they are now acting to get results, and could become a disruptor in the textile business. It is also worth noting that as a global incumbent with a powerful brand and a lot of expertise they were a very attractive partner for a small company.

The issues for Ricoh include learning to learn, how to set priorities among a very large number of opportunities, the organisational clash between the small companies they are working with and their core business, unfamiliar customers, and how to make the economics of the new businesses work for them. They recognize that applying the metrics of the base business to these ventures will not work.

The other principle guiding decision-making in uncertainty is to optimise for robustness and satisfice the result. A robust decision is one which will give an acceptable result over the widest range of deviation of reality from the one postulated by our current beliefs.

In an uncertain environment, outcomes are likely to be determined by unpredictable, unlikely, but high-impact events – Nassim Taleb's 'Black Swans' or Donald Rumsfeld's 'unknown unknowns'. So decisions should take into account the possibility of events at the edge of the bell-curve, and focus on avoiding what could break you – 'killers' – and expose yourself to what could make you – 'kickers'.

In thinking about what could break you, the key is to identify where you are vulnerable and take steps to avoid the vulnerability from being exposed. Stephen presented a way of analyzing vulnerabilities using six questions and illustrated it using an investment banking example from the crisis. In thinking about where you might find 'kickers', it is worth trying to play in serendipity-rich environments in which high levels of uncertainty can result in opportunities you can exploit. Pfizer's decision to explore the pathways associated with nitric oxide, a poorly understood compound, set them on a path that led to the accidental development of Viagra.

Stephen also picked up the idea of lookouts – ways of looking at what is going on that alerts you to things that might have a big impact. Stephen gave a social media example about Mrs Hinch, who in March 2018 began a series of Instagram posts about how she cleans her home, and one year later had 2.4m followers and a best-selling book. Sales of products she recommends have risen dramatically, causing stock-outs in supermarkets. P&G have now signed her up. Social media can create completely unpredictable changes at high scale in a very short time. Look-outs need to pay attention to what is trending, something they did not need to do just a few years ago.

Finally, Stephen illustrated how the various elements of the approach can come together by using the example of Spotify's development of an app store, which began in 2011. Spotify does not have a R&D department – the whole company is designed to constantly develop and change its offering through learning, most of which takes place at the customer interface.

Spotify started with a belief that 'platforms will always win', and that app stores with an Application Programming Interface (API) which enables third-party app developers to use the platform, will make the platform more attractive to users. Apple had launched its AppStore in July 2008 and appeared to be a runaway success. App development had the characteristics of a serendipity-rich environment.

Spotifys' overall direction was expressed as a compass-heading – 'to become the platform for music' – in terms of which an app store made sense. They therefore made the 'bet' of building the API, with the expectation that app developers would be attracted to it, users would like the apps and Spotify's platform would thereby gain an advantage. Their stance was to act to get results.

Their API got off to a good start with hundreds of apps shipped in 2012, but the numbers stagnated and in 2013, despite heavy marketing, there were still only hundreds of apps instead of the thousands they had expected, and users were not spending much time on them. So in 2014 they took the decision to shut the store down, a process completed in 2015. They had failed to get results, but had in fact learned a lot.

In analyzing this failure, the data about apps which had become available since 2008 showed that only 0.07% of them make money. With users uninterested in most of the apps, the developers were unable to make money, and therefore lost interest in the store. In the meantime, Spotify, which was a desktop company, also realized that users were shifting to mobiles, and building mobile apps was far harder than building them for desktops.

This experience prompted a re-think of some of their company beliefs and a re-formulation of their strategic intent from being 'the platform company for music' to 'the company that provided music for all occasions' – 'ubiquity'. They pursued this compass heading by changing their overall stance to 'act to learn', with the belief that 'you only learn when the product is in front of the user'. That implied that speed of development trumped quality, captured in the decision-making principle: 'when in doubt, ship it'. They embraced rapid iteration as a principle, but it was to be ''iteration with a purpose to beat Darwin – be Bayes, not Darwin'. Darwin's watchmaker was blind, so natural selection is slow and random. Spotify's iterations were not blind, but guided by an intent and informed by testable beliefs or hypotheses, and were designed to be as fast as possible.

An example of deliberate acting to learn within this framework was the development in 2016 of an in-house mobile app which became 'Spotify Running'. Research showed that many users do not select music by genre, which is how most playlists were constructed, but by occasion. One specific such is running. Interviews suggested that most regular runners hate running and use music to motivate themselves. In the course of developing an app to provide runners with playlists, the team discovered that the key selection criterion was tempo. They initially allowed users to select their required tempo, but discovered that they did not know what it was. They therefore created a function which measured each runner's tempo when they started to run, and then provided them with a playlist of music in the same tempo tailored to their individual needs. They found that this function was only 90% accurate, but decided to ship it anyway. In 2018, the company withdrew Spotify Running and replaced it with Runkeeper which retains the tempo detection function, but adds in more functions developed together with an Elite Athlete Team to improve the running experience.

In the meantime, the API withdrawn in 2015 has been developed further, and a recently launched Playstation app, which was developed in only 4 months, has had 11 million downloads. By deliberately entering areas of high uncertainty, adopting an exploratory approach and learning from their failures, Spotify has built new capabilities which have enabled more successful product development.

Round the table comments

- It would be good to see the matrix earlier to contextualise different situations. The material may be more effective if the approach section were to come before the attitude changes. The stances are good, but using the word 'wait' might be interpreted as too passive. Perhaps 'prepare' might be better.

- The distinction between the familiar and unfamiliar opens up the distinction between old strategy tools (where you can measure things) and a new exploratory world where you have different tools for coming to grip with the same factors and opens up the dynamic world as suggested by Rumelt;

- Overall very helpful. I liked the idea of act to learn and act to shape and also the idea of a compass heading versus destination, but the problem is getting external stakeholders, particularly shareholders, on board. You still need to deliver on a short term destination. RH commented that that is why Dell went private;

- Enjoyed the discussion about direction. We don't find the North Star analogy helpful because it implies a fixed destination. It would be good to see definitions of trends, beliefs and assumptions (see above). The contrast between the top down and the bottom up DIBB and how they fit together was interesting;

- It was a helpful meeting. I agree about not using the word 'wait', and to me the word 'beliefs' sound religious, which implies people are not ready to have them challenged. Perhaps 'hypotheses' would capture the meaning better;

- The frameworks are useful and I particularly like the idea of familiarity vs unfamiliarity. In the group discussion we had a dialogue about the approach of start-ups being 'fail fast, learn fast, then you don't need strategy'. We can't afford to do that;

- The frameworks are simple and useful and we can map things onto them. It does depend on what has gone on before. It can take a long time to change attitudes including those of the board and that can constrain thinking. We are trying to talk more about what is certain and what not at our Market day. We find it hard to get people to accept that things are uncertain;

- As mentioned by others, the navigation metaphor, rationale for choices, and frameworks are helpful. The problem remains of how you deal with the external versus the internal realities and how you talk to the markets. I liked what was said about external stakeholders and external expectations, and how that varies for different types of company – e.g., innovative versus dividend paying companies;

- I like the term 'belief', but it is interesting to consider how you would test them. When he had the idea of an iPhone, Steve Jobs was ridiculed by Ballmer – so his beliefs would have been destroyed.

- I particularly enjoyed the breakout conversation. This material will help me to have some important conversations with people;

- Most of my observations have already been covered. The meeting has offered some new ways of looking at things. The matrix is useful, but you need a bit of warming up to get it into your head. Always when we talk about this, I reflect back to the HBR article on the Big Lie of Strategic Planning. It builds comfort.

Future meetings

We are now running the **Strategy Bootcamp** as a regular part of the offer and this year it has been scheduled for **30th September – 3rd October**. **Please email Angela to reserve places, and note that there is an early-bird discount for those reserved before 30th June.**

In the course of the four days, we will cover a wide range of topics for the strategist, including: developing strategy; strategic and financial tools for designing business strategies; understanding value creation, value propositions, and competitive advantage; portfolio strategy tools; communicating strategy; strategy under uncertainty; and strategy execution.

Members are invited to reserve places, and can contact Angela Munro for further details including prices.

The next Members' Meeting will be held from 13.00 – 17.30 on 26th September 2019. The subject will be growth and innovation and will be led by Rebecca.

We have decided to try out two alternative venues for the remaining meeting of this year before making a decision about the location of next year's meetings. Accordingly, please take special note that the next meeting will be held in the Lutyens Room at the **Royal Institute of British Architects, 66 Portland Place, London, W1B 1AD.**