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Why firms should focus on social innovation

In conversation with Kevin Heij page 05

Management innovation is as important to a company’s success as any other form of innovation. Yet with companies in the Netherlands investing less in social innovations than ever before, researchers at RSM’s INSCOPE – Research for Innovation centre are focused on developing new tools to help Dutch companies become management innovators, the real game-changer when it comes to competitive performance.

Middle managers: their role in management innovation

By Jatinder Sidhu page 08

Over the last 30 years, leaders of innovative companies have been treated as the heroes of business, people who transformed our lives with their vision. That’s true, but as important as great leaders are in building an innovative company, little would happen if effective middle management did not support them.

The fine line between hands-on and hands-off leadership

By Steffen Robert Giessner and Sut I Wong page 11

Proactive business leaders who give responsibility to their team members are traditionally seen as drivers of performance, while their passive, laissez-faire counterparts are generally viewed in a dimmer light. But what if their success as managers was more dependent on the individual expectations and needs of those working for them rather than what they as leaders have decided is the right approach to directing operations?

The taming of desire: lessons in consumer welfare

By Nicole Mead page 14

It sounds like a paradox, but allowing your customers to manage their desire for your products could make for happier customers in the long run. This is a key finding of newly published research into consumer behaviour and which has important implications for marketers responsible for relationship building with online customers.

Shift happens: how to manage changing projects

By Fabian Sting page 17

One of the most important decisions in research and development is defining the scope of the project. Some problems involve making a simple refinement. Others require inventing a whole new technology. Managers thus assign projects to different “buckets” – allowing them to tailor their project management approaches.

Supply and demand forecasting: more than just a numbers game

By Stefanie Brix page 20

Long gone are the days when firms produced demand forecasts based purely upon mathematical calculations. The modern reality is one of negotiation-based push and pull between the various departments contributing to the process, all of whom have their own functional targets to meet and personal incentives that they wish to obtain. Conflicting agendas and how to overcome them is key to accurate forecasting.
Getting ready for change

Death and taxes – the two oft-quoted inevitabilities from which it is said there is no escape. I’d like to add a third inevitability to the list – change.

While change is a constant, its pace is impossible to measure – except with the power of hindsight. It’s clearly apparent that we’re going through an extended period of rapid and rather dramatic change, thanks primarily to incredible advances brought about by so many technological innovations, but where it’s leading us is unclear.

Such is the force and rapidity of change, it’s frequently stated that we are now in a Fourth Industrial Revolution. It’s a metamorphosis that is part digital, part physical, part biological and part environmental. The Future of Jobs Report 2016, recently published by the World Economic Forum (WEF), explores how change is reshaping the inseparable worlds of business and society with a particular emphasis on the changing nature of jobs and skills, and what employers must do to ensure that they – and labour markets – are prepared to face the future and the inevitable disruptions it will bring.

As the report makes clear: ‘The impact of technological, demographic and socio-economic disruptions on business models will be felt in transformations to the employment landscape and skills requirements, resulting in substantial challenges for recruiting, training and managing talent.’

Management science has a critical role to play here as it is only by understanding the nature of these changing landscapes that forward-looking executives will be able to successfully steer their organisations towards the future with any sort of certainty.

It is exactly in this light that we are proud to present to you this latest issue of RSM Discovery magazine. The articles within its pages offer business leaders a wealth of new knowledge that will be of practical value as they prepare themselves for the inevitable management and business transformations that always go hand-in-hand with change. Make sure that you are prepared.

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Why firms should focus on social innovation

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Management innovation is as important to a company’s success as any other form of innovation. Yet with companies in the Netherlands investing less in social innovations than ever before, researchers at RSM’s INSCOPE – Research for Innovation centre are focused on developing new tools to help Dutch companies become management innovators, the real game-changer when it comes to competitive performance.

When Resato International was named the Netherlands’ most innovative company of 2015 based on the results of the Erasmus Competition and Innovation Monitor, among the innovations listed was its development of an industry-changing ACM waterjet cutting system. Also on the list of the innovations that earned it the coveted Erasmus Innovation award were the company’s high tolerance for mistakes by employees, its scope for employees to explore their own initiatives, and its emphasis on knowledge sharing.

These latter characteristics fall into the category of social innovation, also called “management innovation”, and are the non-technical determinants of innovation. Social innovation in an organisation is a measure of its flexible organisational forms, dynamic managerial capabilities, the development of its human capital, and co-creation.

Does social innovation matter? It most certainly does. The “levers” of social innovation act as sources of competitive advantage by leveraging a firm’s knowledge base, and by facilitating higher levels of productivity and other forms of innovation. Social innovation is at least as important as technological innovation as a source of competitive advantage. And the best results of all are unleashed when both technological innovation and social innovation are present together, prioritised, synchronised and coordinated in the optimal way.

Why then is social innovation at an all-time low in the Netherlands? This situation, which Professor Henk
Volberda, a pioneer of research into social innovation and academic director of RSM’s INSCOPE – Research for Innovation, describes as a ‘threat to the competitiveness of Dutch businesses,’ is the impetus behind much of the work conducted at INSCOPE, where scientists are dedicated to helping companies increase their levels of social innovation: and they are developing new ways to achieve this.

Examples of social innovation include the introduction of self-managed teams or total quality management. Movares, a railway consultancy and engineering firm in the Netherlands, introduced innovation studios specifically as venues within which employees can turn ideas into new solutions. The introduction of cross-functional teams enabled Claymount Technologies Group to come up with the SmartBucky DM, a detection system used to digitalise analogue mammography images.

Yet in spite of its relevance, social innovation has received relatively limited attention compared to technological innovation. ‘In contrast to technological innovation – you see that most large organisations these days have R&D-labs – only a few firms have a dedicated infrastructure for social innovation, such as social innovation labs,’ says Kevin Heij, a manager at INSCOPE.

Increasing understanding
The main aim of INSCOPE is to increase the fundamental understanding of social innovation and its influence on technological innovation, productivity and competitiveness of firms and within networks of firms. The research centre is a consortium of affiliated researchers from various universities: Rotterdam School of Management, Erasmus University; Maastricht University; University of Twente; Utrecht University, and TNO, and brings together an unprecedented combination of expert academics and applied researchers in the field of social innovation.

“INSCOPE catalyses synergies between state-of-the-art strategic management and innovation theories and managerial issues...”

Kevin Heij, manager, INSCOPE – Research for Innovation.

The division of INSCOPE within RSM is partner institute of the World Economic Forum in the Netherlands. INSCOPE scientists collect data and disseminate the findings of various reports published by the World Economic Forum, including the Global Competitiveness Report. The Erasmus Competition and Innovation Monitor and the Erasmus Innovation Award are also activities of INSCOPE.

One part of the Erasmus Competition and Innovation Monitor consists of a survey across a broad range of industries in the Netherlands. This is one the largest annual innovation surveys in the Netherlands focusing on various types of innovation. Researchers affiliated to INSCOPE also host or present at numerous seminars and conferences to disseminate theories and findings on social innovation and business model innovation.

Researchers affiliated to INSCOPE are cooperating and have cooperated with numerous organisations, industry associations and governmental institutes to address specific questions or issues those organisations face. These organisations include, ActiZ, Avéro Achmea, the Dutch Ministry of Economic Affairs, FME, the Port of Rotterdam Authority, Rabobank, Shell, and VNO-NCW.

‘INSCOPE catalyses synergies between state-of-the-art strategic management and innovation theories and managerial issues faced by organisations, industry associations or governmental institutes,’ says Heij. ‘Rigour and relevance are key in doing so. If management wants to know...’

Rick Hollen, for example, specialises in strategies that increase the competitiveness of port authorities and firms operating in a port context. Kevin Heij specialises in how social innovation and business model innovation contribute to a firm’s (innovation) performance.
“If management wants to know how to improve their level of competitiveness and innovativeness, we can help.”

Kevin Heij, manager, INSCOPE – Research for Innovation.

how to improve their level of competitiveness and innovativeness, we can help. For example, we can diagnose the current situation, and provide new insights in relevant levers to improve their competitiveness and innovativeness.’

The vast amount of data INSCOPE has collected over time provides a powerful tool for benchmarking various indicators of innovation, and factors influencing a firm’s competitive position. Managerial and organisational characteristics such as the level of decentralisation of decision making, the degree of structural separation within a firm, transformational leadership, human capital, and co-creation with various external partners are examples of those factors.

Benchmarking enables those firms to compare their firm’s position of those factors and various indicators of innovation with the average scores in the industry and the national average. Depending on the specific question or issue an organisation, industry association or governmental institute faces, INSCOPE also collects new data in a tailor-made way.

New initiatives, new tools
Innovation is fundamental for organisational survival. Understanding this, INSCOPE itself also develops new solutions. Recently, INSCOPE launched new activities in which it supports or helps organisations to conduct pilots on innovation with an emphasis on social innovation and business model innovation. ‘We work in close cooperation with the firm in question to develop plans to introduce a certain social innovation,’ says Heij. ‘We provide support to help them realise that introduction, and we measure the effect of introducing the social innovation.’

As for those managers pondering the potential of innovation for their company, ‘Watch out for fragmented initiatives,’ says Heij. ‘Introducing a part of a certain social innovation may make things worse instead of better. This applies in particular to larger organisations.’

If you are interested in finding out to what extent your organisation compares in social innovation relative to your industry, participate in this year’s Erasmus Competition and Innovation Monitor (in Dutch). Send us an email with your contact details and you will receive an invitation this spring.

For more information on the activities of INSCOPE, visit web www.inscope.nl

If management wants to know how to improve their level of competitiveness and innovativeness, we can help.”

Kevin Heij, manager, INSCOPE – Research for Innovation.
Middle managers: their role in management innovation

By Jatinder Sidhu

Over the last 30 years, leaders of innovative companies have been treated as the heroes of business, people who transformed our lives with their vision. That’s true, but as important as great leaders are in building an innovative company, little would happen if effective middle management did not support them.

Indeed, without a cadre of strong middle managers behind him, even Steve Jobs might not have reached the pinnacles of success that he did at Apple. Despite this fact, most management research has focused on senior managers. Even when it comes to managerial innovation, where middle managers obviously play a key role, we know more about the role of the C-Suite than that of the people in the middle. In a new study, my colleagues and I took a few first steps toward filling in that blank space, by examining middle management’s impact on management innovations.

But management innovations can be nearly as powerful. Toyota Motor Company’s lean manufacturing process and Procter & Gamble’s brand management structure, for instance, transformed not only their companies but also their entire industries. Some historians now argue that the whole Industrial Revolution began not with the invention of the steam engine, but with advances in management.

Management innovation generally rolls out from the top down. Since middle management is responsible for carrying out the wishes of senior managers, senior managers need their middle managers to understand and support the proposed changes. Obviously, the greater ability middle managers have to create delays and system failures. Yet management literature is silent on how the characteristics of middle management affect the C-Suite’s ability to drive changes in management practice.

Two challenges

Setting up our study required overcoming two serious conceptual limitations. First, how could we measure the amount of management innovation that occurs at a given company? After all, you can’t quantify it by counting patents, say, or sales. Unless the outcome is architecture as remarkable as the Toyota Production System, or a feature that the company can tout as an advantage to customers, such as Cognizant’s “two-in-a-box” dual-management structure for its distributed offshore services, management innovations tend to be somewhat obscure.

One way to do it, we believed, was through a close reading of annual reports to identify passages that refer to management innovations. Over the last 20 years, scholars and practitioners alike have increasingly accepted the validity of this kind of quantified written analysis.

“Some historians now argue that the whole Industrial Revolution began not with the invention of the steam engine, but with advances in management.”

Like the middle managers, management innovations are under-sung heroes. Product and service innovation tends to get most of the glory, perhaps because those types of innovation are easier to see and explain, but management innovations can be nearly as powerful. Toyota Motor Company’s lean manufacturing process and Procter & Gamble’s brand management structure, for instance, transformed not only their companies but also their entire industries. Some historians now argue that the whole Industrial Revolution began not with the invention of the steam engine, but with advances in management.

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Second, how could we determine which middle manager characteristics made people more or less likely to follow top management demands? Relational demography theory gave us a clue. This well-established theory holds that the more closely subordinates identify with a superior based on their shared characteristics, the easier they find it to cooperate. As one research team has noted, demographic similarity invokes ‘an attraction dynamic whereby demographi-
This correlation would be particularly significant in management innovation, we believed, as a management innovation effort often demands a lot from managers. Not only must they learn how to do things in a new way, they frequently must make sure that the people they supervise also learn how to do things. This can be demoralising for mid-level managers. It is one reason that we thought a close relationship with top managers would be essential. Further, we expected that the functional role the executives played might be important: did they work for an inner-facing (such as operations or accounting) or outer-facing (marketing and sales) function? Our prediction was that when it came to managerial innovation, inner-facing executives would be more invested in such process-focused changes.

Two-step process
To test our hypotheses, we designed a two-step research process:

1. We looked at the text of the annual reports of 33 organisations operating in the Netherlands between 2000 and 2008. With advanced computer-aided content analysis software, we analysed where and how often certain management innovation-related words (such as adopt, implement and transform) came up in the annual reports of each company. We sorted by numerical efficiency ratios such as reorganisation expenses and overhead ratios, and managerial productivity.
“...greater similarity in the educational level and functional experiences of senior managers and middle managers did correlate with the presence of management innovations...”

2. We matched these findings with data pertaining to 8,000 middle and senior managers who worked at these 33 companies over the same eight years – records obtained from a large, globally-recognised human resources consultancy. The records identified only the individual’s position, gender, educational level and function.

The results did and did not surprise us. On the one hand, we were surprised to learn that age and gender did not correlate to the number of mentions of management innovation we had found in any of the companies. On the other hand, greater similarity in the educational level and functional experiences of senior managers and middle managers did correlate with the presence of management innovations as we had hypothesised.

As with most research, our study contains a few limitations. Although we believe content analysis is a useful tool for measuring management innovation, it’s akin to those chemical tests that can measure the presence or absence of something but not its strength. This approach tells the researcher that management innovation is occurring, but it can’t distinguish whether it’s an incremental or a radical innovation.

Next studies
Similarly, the limited nature of our management data made it impossible for us to answer a number of important questions, such as whether having a similar length of tenure at a company is an important contributor to identification between middle managers and senior managers.

Although our work suggests that similarity between the middle and top tier managers reduces the need for communication, executives may not be better served if they are able to hire people who resemble themselves. On the contrary, a number of studies have found that it may hinder other kinds of innovation. In product development, for example, diversity has been shown to spur creativity. We think that companies may be better off drawing a more positive lesson instead: if you want to make sure you get the benefits of diversity without the downside of more misunderstandings, it may be a good idea to place more emphasis on internal communication.

Further research will clarify some of these mechanisms, but some of the most important lessons around management innovation adoption are already clear. First, keeping communication lines open from the top to the bottom of the company is crucial. And second, keeping up with advances in management innovation is also crucial. The competitive advantages of technological and product innovation have become relatively short-lived, eroded by low-cost, high-skilled global competitors, reverse engineering, and weakened intellectual property protection.

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This article draws its inspiration from the paper The Conjoint Influence of Top and Middle Management Characteristics on Management Innovation, written by Mariano L.M. Heyden, Jatinder S. Sidhu, and Henk W. Volberda and soon to be published in the Journal of Management.
The expression “leading by example” conjures up many ideas, be they in a business context or in realms such as the sporting world or even personal life. It translates an image of an individual heading a business, team or family unit in so inspiring a way that those “beneath” want to produce or deliver that little something extra in the image of the person they look up to.

This is a somewhat traditional view of leadership from a relational perspective as the leader is not so much transmitting any tools, skills or knowledge as simply being followed. There is no notion of giving responsibility to others. Although for a long time considered an inspirational approach to leadership, this model is to some extent passive.

It is for this reason, amongst others, that in the business world leading by example is no longer viewed as the sole or even ideal approach to getting the best out of one’s subordinates. Empowering team members by delegating responsibility has become viewed as the way to go. Then on the flipside, there is the passive, laissez-faire approach.

An unhealthy distance
One of the main offshoots of empowering leadership is that it removes some of the aura that surrounds the leader. Whilst the hierarchical chain is not actually broken, team members start to feel that they have more worth and importance to the firm by being given responsibility rather than being enslaved by a rigid, top-down structure where the boss always has the final word.

The passive, laissez-faire approach to leadership has the reverse effect. It creates distance as the leader is more dismissive of team members’ needs, avoids confronting problems, keeps interaction to a strict minimum and shirks their responsibilities as a leader. Worst-case scenario, there is a total absence of leadership, meaning that team members are left sidelined.

On the surface, there would appear to be a yawning chasm between the empowering leader and the laissez-faire alternative, especially in terms of the creativity, performance, cohesion...
The fine line between hands-on and hands-off leadership

By Steffen Robert Giessner and Sut I Wong

and satisfaction that they can expect to elicit from their team. Not necessarily so. What the above assumptions fail to take into account is that team members do not have uniform needs and expectations of their leaders and that, by virtue of having differing perceptions of “effective leadership”, they respond in different ways to the empowering or laissez-faire leader. All of a sudden the chasm becomes a narrower gap.

**Needs and expectations**

Assuming that empowering leadership will always be a resounding success and the laissez-faire approach a business disaster overlooks an important fact – those being led are humans and not only have different requirements of their leader but also respond well to different forms of leadership. Some workers need and want to be overseen regularly, request more frequent meetings to go over projects in progress and may even appreciate the odd metaphorical kick up the backside from the boss.

Others are happier working in near-total autonomy, needing the boss’ intervention on a needs-only basis. These are just two potential worker profiles but already in these two instances what they need and expect from their hierarchical superior is vastly different, something that the ideal leader should be aware of.

To return to the empowering/laissez-faire distinction, the leader who empowers by delegating responsibility could be viewed in markedly differing ways; as one who entrusts team members with authority or, alternatively, as one who is shirking responsibility by passing it off onto others. This polarised opinion underlines the importance of the perception of the leader to the way in which he or she manages individuals.

In research circles this phenomenon is known as Implicit Leadership Theory. This school of thought reverses the leader-follower dynamic in the sense that effective leadership is defined by what the followers expect from their leader and therefore by what style of leadership the followers feel empowered.

This is light years away from the “leading by example” scenario as the team member becomes far more central to the process and leaders have to sit up and take notice of what is expected of them, rather than just leading in their own style regardless of each team member’s needs.

**Challenging the hierarchy**

To put this theory to the test, a recent study was carried out focusing on front-line workers and their immediate superiors in a Norwegian manufacturing firm. The study sought to establish the front-line workers’ expectations of empowerment and their perceptions of laissez-faire leadership as well as leadership effectiveness. Their managers were invited to perform a self-assessment of their empowering behaviours as leaders.

Of the findings to have emerged through a survey and quantitative empirical testing, perhaps the most important was the direct impact that workers’ implicit view of leadership...
It is estimated that the most effective managers spend about 50 per cent of a typical working week doing precisely that with their subordinates. They are listening to their needs and expectations and adjusting their approach on a case-by-case basis so that each team member feels empowered, but not via a blanket approach applied arbitrarily to all. This is easier said than done but it is fair to say that the generally flatter hierarchical structures in firms nowadays offer more conducive conditions for regular interaction between managers and workers.

From a theoretical perspective, investigations continue as to the impact of differing leadership styles not only on individuals but also on entire organisations. Also for consideration are other approaches to leadership, such as transformational and transactional management styles.

Another fascinating area currently under the microscope is the potential trickle-down effect of good and bad leadership styles. Is the tough, unbending senior executive likely to bring out the same kind of behaviour in his or her line manager or will the latter react against this style and seek to empower the front-line workers beneath? In our increasingly connected, technology-driven world where work-life balance is assuming ever more importance, there is every opportunity for leaders to create working conditions and adopt leadership styles suited for all.

The journey may be a long one but one thing is for sure – adopting a one-size-fits-all managerial approach may not so much rally the troops as see team members going absent without leave.


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...the implications are major for leaders, who are to a degree at the mercy of their subordinates in terms of managerial reputation.”
The taming of desire: lessons in consumer welfare

By Nicole Mead

It sounds like a paradox, but allowing your customers to manage their desire for your products could make for happier customers in the long run. This is a key finding of newly published research into consumer behaviour and which has important implications for marketers responsible for relationship building with online customers.

Amazon, iTunes, and almost every online store on the planet today use shopping carts and wish lists on their websites. These handy tools let you “shop” without the downside of imminent payment. You can earmark items you like and come back to them later. Importantly, you can postpone the moment of transaction to any time you are ready – more options for consumers, more encouragement to consume.

That, at least, is the theory. In practice, according to the results of a recent study we conducted entitled The taming of desire: unspecific postponement reduces desire for and consumption of postponed pleasures, these tools could have just the opposite affect. Our research reveals that the simple act of postponing a temptation to a later, non-specific time (I’ll buy that later) reduces our desire for an item, and in turn, our consumption of it in practice.

While this research has implications for the role of online shopping functions that allow for the indefinite postponement of purchasing, it also – and perhaps more importantly – has implications for how companies create strategies that aim to create a satisfied consumer base. Perhaps the key to happy customers lies in building brands that encourage consumers to purchase products without “binging” on them. Seem counter-intuitive? While it is true that marketers have rarely contemplated ways to help curb the desires of their customers, we could argue that there are very good reasons why they should.

Consumer guilt

Few people could dispute the many virtues of online shopping. But the ability to purchase items without leaving our homes has brought with it an unprecedented level of temptation to consume. With this temptation comes conflict: consumers often desire more than they can afford or use. If they give in to their desire, they are often hit with consumer guilt. If they don’t, they are distracted by thoughts of these items on a daily or even hourly basis.

Much research has been conducted on this. Typically the cycle is that a consumer, faced with a temptation they wish to resist, will try to exercise self-control, eventually break down and give in, feel guilty and, as a consequence, try to stay away from the source of temptation altogether. An example of this might be a consumer of books on Kindle, who repeatedly buys books that he or she does not have the time to read, struggles with guilt and eventually eschews Kindle completely. This negative cycle was of interest to both Vanessa Patrick, co-author of the research paper, and myself. In marketing, there is an increasing focus on consumer welfare. While concerns for consumer well-being are a primary driver within this area of research, also of importance is finding a better fit between brands and the needs of consumers. When people consume in a moderate way, they feel less remorse, they exhibit greater pleasure in what they have purchased, and have a better feeling about the brand. Having happier consumers is a goal of most companies in the business of selling products and services.

But how do consumers better manage their temptations so that they can enjoy the product more, instead of eventually not using it at all? How do we avoid a situation where a company might become a source of torment or anxiety? Because, clearly, that’s not what the company wants either.

So far, research shows that when it comes to resisting desire, human willpower is very limited. Desire is a well-studied aspect of human psychology, and we know that it is very difficult for people to consciously moderate their desires. But what if there were a way in which people could moderate their desires? That would certainly be a more reliable path to successful consumption reduction than trying to increase our willpower to resist them.
Unspecific postponement

Often scientists are inspired by the observations they make in their own lives. During my PhD, I had a weakness for cookie dough ice cream. Sometimes my cravings were so strong, I found myself making trips to the supermarkets just to buy ice cream. One day, in the supermarket, I told myself I could have it some other time. As the days passed, I found myself increasingly able to pass ice-cream stores without an internal war, and eventually walking to the checkout counter in the supermarket without the thought of going to the ice-cream aisle. I had observed a curious thing: the more I postponed having ice cream, the weaker was my desire.

My co-author and I decided to explore this conjecture. Would people do better by saying ‘some other time’ instead of ‘no, not ever’ in response to temptations? Furthermore, would people interpret unspecific postponement (‘I’ll have it some other time’) as a signal that they didn’t strongly value the temptation, in turn reducing their desire and thus consumption of it?

The results of our research confirmed our hypothesis. Indeed, we can now say with some certainty that a pattern exists in human behaviour in which every time consumption is postponed, desire for the product is weakened. Not only that, but postponing temptations proves to be a much more effective way of reducing unwanted consumption than self-restraint, which brings with it a host of interesting new research possibilities. But the key words here are: unspecific postponement. Postponement must be to an unspecified date and time, not deferment to a different, specific date and time.

Why? This finding fits with classic theories regarding human behaviour and inner mental states, which suggest that we often make inferences about how we feel based on behaviours. When people make specific plans to do or buy something, our minds start preparing: we are committed to this event which, in turn, leads our minds to make inferences regarding how much
we must value the event or product, ie, considerably. When a plan is unspecific, we no longer think about the plan, our motivation to fulfill it is reduced, and we perceive this as a signal that we do not strongly value that which we have postponed. Desire for it is reduced and, subsequently, consumption.

Of course, this only applies in situations where postponement is self-induced, not imposed, and only in relation to products where there exists this conflict between desire and self-control.

A good example of a practical implication of this research might be seen in regards to reminder emails that companies disseminate when people have not checked out their shopping carts. Reminding them of this delay could be inadvertently communicating to consumers that they do not strongly value the product. These are the conjectures that we are currently investigating with research into companies and Wish Lists. On the other hand, companies should strive to help their customers exercise better self-regulation, and not just for consumer welfare purposes. If the simple act of unspecific postponement reduces desire with subsequent consequences for better self-regulation, consumers are more likely to make choices that they feel good about.

Given that constant buying and not buying at all are the two consequences of focused efforts to tempt consumers, companies might do better by aiming for moderate consumption by their customers – the average of the two. The benefits of this are clear: customers who feel less guilt and more satisfaction with a company’s products will develop stronger, more positive relationships with a brand or product, which is perhaps a better strategy for ensuring long-term success.

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Moderate consumption
These findings are relevant for companies in many ways. Companies are increasingly making it possible for consumers to defer consumption, thinking that if they give them a safety net they will encourage them to consume. But this delay could reduce how much these consumers value and desire the product. At the same time, if a company bombards their consumers with temptation in relation to certain products, the conflict that this causes within their consumers could cause them to avoid exposure to the temptation altogether.

“A good example of a practical implication of this research might be seen in regards to reminder emails that companies disseminate when people have not checked out their shopping carts. Reminding them of this delay could be inadvertently communicating to consumers that they do not strongly value the product. These are the conjectures that we are currently investigating with research into companies and Wish Lists. On the other hand, companies should strive to help their customers exercise better self-regulation, and not just for consumer welfare purposes. If the simple act of unspecific postponement reduces desire with subsequent consequences for better self-regulation, consumers are more likely to make choices that they feel good about.

Given that constant buying and not buying at all are the two consequences of focused efforts to tempt consumers, companies might do better by aiming for moderate consumption by their customers – the average of the two. The benefits of this are clear: customers who feel less guilt and more satisfaction with a company’s products will develop stronger, more positive relationships with a brand or product...”
Despite all their efforts, however, the chances are good that the R&D project’s senior supervisors will assign the project to what may later turn out to be the wrong project bucket. Often, what might look like an incremental product that involves a “near search” for straightforward solutions and looks towards resources readily available within your company starts to look instead like a “distant search” project that requires going farther afield for answers.

Near versus far
Deciding whether a project requires a near search or a distant search is a key choice because these two kinds of projects are often structured and run in very different ways. A simple refinement requires focused research that generally draws on resources and solutions that are near at hand. (Think of a facelift project for a mature car series.) A more complex project often involves searching for answers from farther away, and the chances of success are usually much lower. (Think of developing a driverless car.)

The need to reclassify a project from a near-search to a distant-search effort arises for a number of reasons. Sometimes, the researcher or developer uncovers something unexpected. Chemists, for example, have often accidentally discovered significant compounds while trying to solve a completely different problem: Viagra started as a heart-disease drug but evolved into a potency-increasing global blockbuster.

At other times, the competitive landscape may change: a team may have started working, only to learn that a competitor has come up with something truly innovative, or found a way to develop a product that can match your product’s features at half the price.

When such a new opportunity occurs, the team needs to move quickly from being near-search to distant-search focused. Less frequently, the opposite can also happen – a light bulb goes on unexpectedly and a solution starts to seem much nearer at hand than forecast.

To find out the best way to manage these kinds of mid-course corrections – for a recently published study on managing R&D project shifts in high-tech companies – we interviewed 142 managers of 12 corporate R&D teams at two well-known global technology companies that had faced the challenge of just such a shift. By questioning these managers closely about their experience, we found three managerial practices that seemed to make it much easier for the R&D team and the overarching R&D organisation to make that decision and act on it.
Shift happens: how to manage changing projects (continued)

By Fabian Sting

“...a team may have started working, only to learn that a competitor has come up with something truly innovative, or found a way to develop a product that can match your product’s features at half the price.”

In either case, teams are at risk of missing the short time-window they have to switch because their managers are unable to realign their resources quickly enough to take advantage of the opportunity.

Such an adjustment can be a brutal challenge for a manager. It’s as if you were carrying the right maps and equipment for one kind of treasure hunt but then realised you were actually facing a completely different challenge: Sorry, it’s not buried on top of Kilimanjaro after all; it’s scattered all over the Dolomites.

Through our interviews with the managers of these teams as well as their companies’ division managers and CEOs, we found that teams belonging to the company we called MicroSystem, which allowed for course corrections, succeeded more often than the teams that belonged to the company we called CommCorp, which did not.

Three easy steps

Several structural factors enabled the teams at MicroSystem to make a successful transition from a near to a distant focus, unlike CommCorp. MicroSystem’s solution was not simply to let the project’s chief scientist “wing it”. What worked for them is a method we call “responsive search”, which makes it easier to shift between the two modes. Three mechanisms facilitated their mid-course corrections:

• Continuous, not annual, planning. Annual plans don’t make much sense in a fast-moving industry. Weekly or monthly updates on the progress of the work and on external events (in the market or in other labs) helped managers ensure their team received the kind of resources it needed.

Although each of these mechanisms may seem obvious in isolation, it is combining them that enables the team to make a shift between near and distant searching without much disruption.

The good news is that these measures aren’t all that difficult. As the president of MicroSystem told us: ‘The biggest challenge is laying the foundation for all these processes. Once established, it was like clockwork and everybody in the organisation knew what to look out for.’

Interestingly, my co-authors at first faced a somewhat analogous problem at an early stage of this research project. Readers of a precursor draft told them that the case-based results were too anecdotal to draw any reliable conclusions. How, readers asked, do we know that this experience can be generalised? They needed to look beyond the traditional case method (a near search) to find a quantitative way to test whether these measures would always be useful.

That’s when they reached out to me (a truly distant search, as they all work in the USA), and asked me to help check the validity of their findings quantitatively.
Using Kaufmann’s NK model (1993), we modelled the project’s search in a way that allowed us to portray the challenges as a hilly landscape. The NK model uses two parameters: first, the number of specifications (N) that define the project’s current technological scope. For instance, one of CommCorp’s projects, a computer tablet, is configured with specifications for the processor, screen size, and other features. The second parameter (K) is the number of (other) decisions that affect each of the N decisions.

We designed a program that emulated this strategic challenge, simulating what would happen over the course of 10,000 projects. The program modelled four different strategies to represent a project’s R&D search:

1) **Local search**: the team only searches locally to improve existing technology.

2) **Distant search**: the team makes “long jumps” every period, looking for new technological possibilities.

3) **Responsive search**: the team reacts in response to landscape shifts, depending on whether the environment seems to favour a local or a distant search.

4) **Ambidextrous search**: teams pursue both possibilities at once, ignoring shifts in landscape. Scholars write about this possibility often but we did not observe it in any of our actual cases.

What we found supported the case observations: on average, teams faced with this kind of challenge are better off if they stay responsive, particularly in an environment of high technological turbulence and high time-to-market pressures, but that such responsiveness mattered less if technical and market turbulence were low (or when time-to-market pressure is not as high).

**Lessons for individuals**

Beyond offering insights for managers, these results may give individual professionals some food for thought as well. This project, for example, ran into a wall until my co-authors decided to shift their strategy and reinforce their case study work with analytical simulations. People facing similar challenges should keep in mind two lessons that we learned in the course of this research:

- Don’t assume that you know the true complexity of your problem. It’s easy to misjudge the scale of a challenge.
- If it’s not working, rethink your strategy. Patience is a virtue, but not if you’re trying to pound a square peg into a round hole.

Traditional thinking about innovation has it that “if at first you don’t succeed, try, try again.” Our research suggests that on the contrary, under certain circumstances, a better motto might be, if at first you don’t succeed – switch! ■

This article draws its inspiration from the paper *Managing R&D Project Shifts in High-Tech Organizations: A Multi-Method Study*, written by Aravind Chandrasekaran, Kevin Linderman, Fabian J. Sting and Mary J. Benner. It is forthcoming in the journal *Production and Operations Management*.

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Supply and demand forecasting: more than just a numbers game

By Stefanie Brix

Long gone are the days when firms produced demand forecasts based purely upon mathematical calculations. The modern reality is one of negotiation-based push and pull between the various departments contributing to the process, all of whom have their own functional targets to meet and personal incentives that they wish to obtain. Conflicting agendas and how to overcome them is key to accurate forecasting.

Having the necessary internal supply to meet external demand is one of the core activities of any firm. The dynamic between doing good business in-house in order to be able to deliver the necessary product or service onto the market in the right quantity, at the right price, at the right time, at the lowest logistical cost and to the benefit of the firm’s brand image is a complex one.

For starters, demand can be influenced by a whole series of outside factors, including global competition, changing consumer preferences, and even seasonal disruptions such as weather conditions or holiday periods. This doesn’t make the job of making an accurate forecast any easier. However, when the various departments contributing to the preparation of a final forecast proposal for board approval are not even pulling in the same direction, the task becomes a potentially Herculean one.

Questions of motivation

The irony of the numbers game involved in producing a demand forecast is that it is becoming less and less stats-based as the years go by. Over the past decade, it has been estimated that only 25 per cent of firms produce purely mathematically generated forecasts. The majority of proposals are now accompanied by a whole series of assumptions, explanations and justifications from the various departments involved in the process, which are then argued and debated and, in the event of a consensus being reached, then condensed into an overall argumentation for the final OK
from the people at the top. The process is therefore a very human one, with a particular emphasis on the sometimes conflicting motivations of each interested party. The challenge is to turn opaque, subjective assumptions into healthily-debated conclusions.

The departments involved in such a process differ from one firm to another, but to illustrate the impact that differing agendas can have, a scenario where Sales, Marketing and Operations have to work together provides a good case in point. Typically, the Sales department’s key goal is to ensure that enough stock is in place to meet all purchase requests as the last situation they would want to avoid is to miss out on sales due to a lack of available supply. Their forecast input would most probably blend judgement calls with statistical sales targets to back up their opinion.

Marketing’s preoccupation would most likely be with brand reputation and incentivising consumers, an art that is altogether more subjective and would err more towards an instinctive but justified feel for the nature of the consumer market than mere figures. The Operations team, on the other hand, would go very much in the opposite direction, looking to justify mathematically a more downward forecast in order to avoid the costly business of handling surplus stock. The challenges only just begin here...

**Owning the process**

Given that each department puts markedly different cards on the table in terms of stats and arguments, the thorny issue of attributing ownership of the forecast process also has to be addressed. Some noses will inevitably be put out of joint but in any given firm one department has to take responsibility for synthesising the various recommendations and being responsible and accountable for the final submitted proposal.

Ultimately, forecast accuracy has to carry higher priority than inter-departmental relations. However, a recent case study of a global beverage firm shows how the former does not necessarily have to come at the expense of the latter. Via a simple, low-cost internal exercise, an improved result was produced both in terms of diplomatic relations between departments and the actual forecast itself.

The firm in question boasted €2.6 billion in sales and an operating income of €324 million in 2009. More significantly, it operates out of 84 plants worldwide within an FMCG market characterised by high seasonality and volatility, doubling the pressure to produce as accurate a demand forecast as possible.

Under the microscope was its Latin American country business unit, where forecast ownership changed from Marketing to the Supply Chain Department and where a new forecast methodology was introduced in order to reduce tension, improve accuracy, increase transparency and generalise a feeling of ownership of the process and its results.

All of this was achieved via a simple spreadsheet set-up comprising a weighting scheme that brought the explanations of each department out into the open and onto the negotiating table, combining them with statistical forecasts based on past performance as well as present and future concerns. Whilst the Supply Chain Department was clearly identified as being in charge, no longer were the motivations and vested interests of each participant in the process cloaked behind the figures presented. Discussion was healthier through improved transparency and the final proposal much closer to a general consensus than in previous years.
A behavioural dilemma
Delving deeper into the demand forecast dilemma reveals that the phenomenon is not only an organisational and departmental one but also a functional and human one. Workers belonging to a particular department within a firm have to ask themselves where their priorities lie beyond the correct execution of their own job – the benefit that their demand forecast does to their department or to the firm as a whole.

In a great many organisations, performance-related incentives (pecuniary or otherwise) will be related to the individual department, so it is only human nature that those contributing to the forecast process will seek to deliver a result that will be viewed positively within their department first and foremost. The danger for the firm is that the final forecast will suffer in terms of accuracy as an individual contribution to the forecast may be inflated or deflated in order to serve primarily departmental interests.

Coupled with the notion of departmental affiliation is also the natural inclination of forecasters to be either conflictual or consensual. As seen before, it is probable that the likes of Marketing, Sales and Operations will not see eye-to-eye. If, at the negotiation stage, some of those involved are also of a naturally conflictual nature, reaching a final agreement will prove tougher still as one department will inflate its predictions in anticipation of the fact that another will be overly conservative. This battle of wills is a game of give and take but encouraging people’s desire to cooperate (known in research circles as Social Value Orientation) can be achieved, in theory.

Dangling collective carrots
In practice, getting the departments involved in demand forecasting to sing from the same hymn sheet represents a long haul for senior management. The challenge for the powers that be is to grasp not only inter-departmental dynamics and incentive structures but also the individual motivations of each team, their behaviour patterns and potentially compose teams of certain personality types in order to keep conflict down to a minimum. In short, when managers are setting up a demand forecasting process, they should try to keep a forecast de-biasing strategy firmly in mind.

Such a strategy could be supported by introducing more collective incentive schemes, which could help strip away some of the inter-departmental dogfighting and encourage workers to see the bigger picture. Helping people understand the potentially negative repercussions of their own forecast proposal on their counterparts in another department could be one way of achieving this. Above all, the message is to get everyone pulling in the same direction by dangling a carrot that serves the firm, and not just the individuals and the department to which they feel most loyal.

This article draws its inspiration from Stefanie Brix’s PhD thesis Mind the Gap between Supply and Demand – A behavioural perspective on demand forecasting. It can be freely downloaded at

http://repub.eur.nl/pub/79355

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“...when managers are setting up a demand forecasting process, they should try to keep a forecast de-biasing strategy firmly in mind.”
Supply and demand forecasting: more than just a numbers game

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