Chapter 4
Classic Root Causes of Innovation Failures—Things We All Know but Sometimes Forget

Jean-Philippe Deschamps

Abstract Innovation failures happen when management neglects to follow a number of well-known innovation rules. This chapter reviews some of these rules and it identifies frequently found—root causes behind their non-observance. We will first focus on the non-respect of a critical strategy rule—the imperative need to anticipate and react to external changes—and a basic execution rule—the necessity to build integrated innovation process roadmaps. Failures also come from not abiding by the rules that determine technology leadership, product leadership and access to market, three combined conditions for innovation success. In most cases, the root causes are managerial. They often point to a disconnected approach between the technical and business sides of the organization resulting from a deficient innovation governance.

4.1 Introduction

There is so much hype about innovation, both in companies and in the business media, that it is wise to remind ourselves that a large proportion of innovative new products or services actually fail to either build their own market space or are quickly displaced by competitors. Many articles have listed the most common reasons why new products fail, but they seldom go deeply enough in identifying the root causes behind these failures. So, at the risk of adding yet another explanation for innovation failure rates, this chapter will revisit some of the most basic innovation rules that lead to success when applied, or to failures when neglected. Success and failure are indeed the two sides of the same set of innovation rules.

Innovation rules cover both the front end and back end of the process, i.e. innovation strategy formulation *and* execution. Strategy failures tend to be irreparable, hence more costly and sometimes more lethal than execution failures. Let us review a couple of these neglected rules.

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N. Pfeffermann and J. Gould (eds.), *Strategy and Communication for Innovation*,
DOI 10.1007/978-3-319-49542-2_4

4.2 Neglected Strategy Rule: Anticipating and Reacting Fast to External Changes

One of the most dangerous traps companies face is to stay blind or to react too late to major changes in the company's industry and market environment, thus to assume that current favorable conditions will prevail. Such management blindness can relate to a variety of changes;

- Changes in industry structure and regulations;
- Convergence of segments or creation of new segments or even entirely new industries;
- Emerging trends in customer behavior;
- New pressures on the viability of current business models;
- Emerging technologies and competitors.

All these changes can happen at the same time, thus endangering the future of whole industries. The big Switzerland-wide debate about the future of connected watches and their implications for the Swiss watch industry is a good illustration of that blindness danger. Was the Swiss industry too complacent about the future prospects of its worldwide markets to see the connected watch phenomenon coming? Are Swiss watchmakers downplaying Apple's power to create yet another watch category? Do they appreciate the fact that connected watches could redefine entirely the boundaries of their industry, leaving the Swiss brands in small "nostalgia" or luxury niche segments? The most critical Swiss media do not hesitate to talk about arrogance and complacency on the part of most Swiss watchmakers.

Ravi Arora, vice-president of innovation at the Tata Business Excellence Group introduces two important concepts related to this blindness danger in his new book *Making Innovations Happen* (Arora 2015). He talks about "prescience errors" and "obstinacy errors". Companies make *prescience errors* when they neglect or downplay the importance and potential impact of an emerging phenomenon, a new disruptive technology or business model. They make an *obstinacy error* when, having seen the writing on the wall, they persist with their strategy without sufficient correction or adaptation.

4.2.1 Root Cause N°1: Management Inward-Looking Attitude

Prescience and obstinacy errors happen when a management team lacks both the curiosity to monitor early change signals and the humility to continuously challenge its own vision of the business environment. Such managers may be devoid of what Intel's charismatic former chairman, Andy Grove, called "paranoia" (Grove 1996). Paranoid managers, according to Grove, look continuously for insights and, most importantly, build foresight. They observe, question all hypotheses and challenge

their staff regularly to ensure they read correctly and interpret early warning signals and are prepared to change tack accordingly. Paranoid leaders ask different types of questions

Not just *what?* but *what if?* and *what else?*
Not just *why?* but *why not?*
Not just *who?* but *who else?*
Not just *how?* but *how much?* and *how else?*

Leaders who lack this ability or willingness to challenge their own assumptions and those of their staff will typically be unable to "unlearn." They will tend to stick to their strategy—an obstinacy error—and face serious consequences.

4.2.2 *Root Cause N°2: Overconfident Leaders, in Love with Their Technology and Concepts*

Being proud of the company's technology and design is a good thing and a motivating factor. But beware of the risk of hubris, which is often prevalent, particularly with industry leaders who believe that they fully deserve their leadership position and feel safe about it! Hubris is apparently a risk for the leading Swiss high-end and luxury watchmakers. Many probably said: "If the world has appreciated our beautiful mechanical time pieces for decades, why should consumers buy an Apple watch?" The same can be said about Nokia mobile phones: "Since we are the world's largest cell phone company and biggest camera producer, why should we feel threatened by Apple's iPhone when Apple didn't know much about mobile phones anyway?"

Overconfident leaders tend to downplay their emerging competitors' choices. They may be unwilling, therefore, to scrutinize the future validity of their own past strategies and success formulae, with the consequences we have all recently observed in the transformation of the mobile phone industry into the Smartphone industry. Both Nokia Mobile Phones and Research-in-Motion (RIM)/Blackberry dominated their segment prior to the arrival of Apple's iPhone and the emergence of Samsung. Convinced of the superiority of their technology and the market acceptance of their concepts, they were also both slow to realize that these new competitors were about to redefine their industry. They both tried to resist the change but they made a fundamental prescience error by not seeing (1) how mobile phones were turning into platforms for multiple applications; and (2) the merging of consumer and professional segments around broad-based smartphones. They worsened their situation by making an obstinacy error, i.e. by being reluctant to relinquish their proprietary operating software and their superiority in mini keyboards in order to adopt tactile screens. The combination of these errors ultimately led to their demise as major industry players.

4.3 Neglected Execution Rule: Mapping and Integrating the Process

Whereas disregarding the key innovation strategy rule described above can be a "company killer," neglecting innovation execution rules and proceeding with a botched process is repairable. It is more of a "retarder"' than a "killer" per se.

Best practice advocates insist on the benefits of a carefully mapped innovation process and that the resulting map should be easily understood and respected by all intervening functions. Innovation process mapping is a delicate exercise because it needs to combine different parts of the process with different dynamics and requirements. A good process map recognizes the peculiarities of the creative "fuzzy front-end," with its unavoidable uncertainties, iterations and loops, and those of the more predictable "speedy back-end," which requires a lot of discipline. A good process map should provide elements of structure and solidity while maintaining adaptive flexibility. A comprehensive high-level process map is shown in Fig. 4.1. It has the merit of showing how all the pieces in the process are interrelated. But companies need to detail each of these sub-processes into individual activity chains and tasks.

Experience shows that many companies are still deficient in their innovation process mapping discipline. Management leaves many questions unanswered, such as

- What should be the overall process architecture?
- How will uncertainty be reduced over time?
- How will investment/funding evolve?

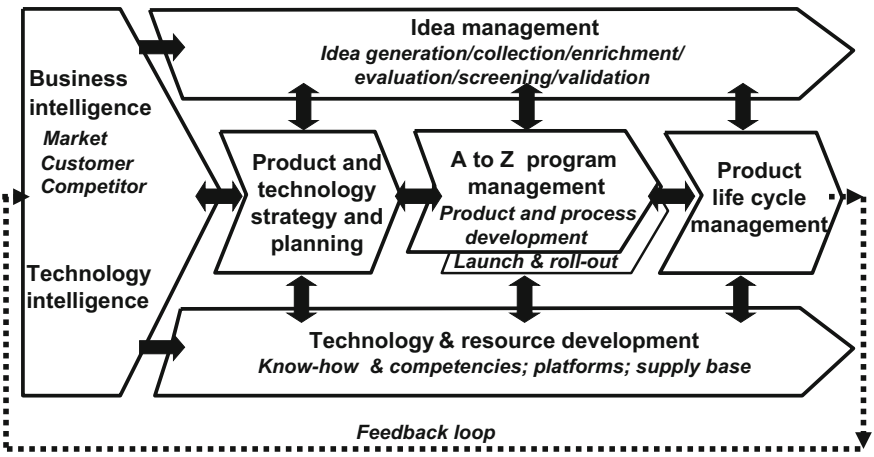

Fig. 4.1 High-level process innovation model. *Source* Innovation Leaders—How Senior Executives Stimulate, Steer and Sustain Innovation by Jean-Philippe Deschamps, Wiley/Jossey-Bass pp. 103

- How will continuity be maintained in project management?

This may result in an ad hoc process.
There are typically two root causes behind this situation.

4.3.1 Root Cause N°1: Leaders Unaware of the Importance of Integrated Roadmapping

Roadmapping—a sequential listing of expected activities or outcomes over time—has become a key buzzword in the field of innovation management. Unfortunately, many companies only practice a limited kind of roadmapping. R&D managers and technologists often convey the result of their technology intelligence exercise in the form of technology roadmaps and/or competence roadmaps. Many hi-tech companies discuss their anticipated product roadmaps with their suppliers to enable them to tool up ahead of orders. But although they are useful for providing a glimpse of the future, these roadmaps generally remain quite limited and are rarely fully integrated in that they are not compatible with each other. Rare, indeed, are management teams that demand from their staff an integrated set of roadmaps as illustrated in Fig. 4.2.

Although this figure might seem complex, it is actually quite straightforward and logical. Starting from the left of the picture, the tangible outcome of the *market intelligence process* consists of a hierarchy of customer (or consumer) needs and preferences over time. This type of roadmap seldom exists, often because marketers dislike sticking their neck out by predicting customer expectations regarding product attributes. In parallel, the *strategy process* typically results in a prioritized list of market segments targeted by the business. These two roadmaps serve as primary inputs to the *product strategy and planning process* since together they convey both

Fig. 4.2 Integrated process roadmapping. *Source* IMD class materials from Jean-Philippe Deschamps

what the company needs in order to compete effectively and which segments it wants to focus on. In parallel, on the right side of the picture, the technology planning process will generally come up with technology roadmaps that reflect both the output of the company's internal technology development efforts and the evolution of external supplier or partner capabilities over time. By indicating what the company can do on the technology side, this roadmap becomes another input into the critical *product strategy and planning process*.

Based on these two types of input, the *product strategy and planning process* starts with roadmapping the evolution of desirable product functionalities, as well as their costs and other attributes. For example, Apple is likely to be seriously working on a roadmap for enhancing the battery performance of its Apple Watch, a critical element of its offering. This type of roadmap is the cornerstone of the product plan. It can then lead to specific product platform and derivatives roadmaps that will indicate how the business offering will evolve over time. In turn, these functionality, platform and product roadmaps will be translated into competence development roadmaps and actual R&D projects as part of the *R&D planning process*.

Building an integrated set of roadmaps, like the one indicated in Fig. 2, is becoming a key success factor in the development of complex innovative products. Many botched projects simply reflect a lack of functional coordination and ad-hoc planning.

4.3.2 Root Cause N°2: Poor Functional Interface in the Specification Phase

A lack of integrated roadmapping is often caused by an ineffective marketing/R&D collaboration in the most critical part of any innovative project: the specification phase. When the specification process evolves through a series of hard-ball negotiations between entrenched functions, each group trying to safeguard its interests and demands, the results are rarely satisfactory. The process can result in dull product compromises, drifting or muddled specs, and late changes leading to market delays and poor product success. This is why a healthy relationship between marketing and R&D or engineering, based on constructive confrontation aimed at achieving a shared goal, is at the heart of successful innovation projects. The adoption of empowered cross-functional teams working together on innovative projects from A to Z is an obvious solution to this problem, but experience shows that it is not happening in all companies. Traditional functional silos die hard!

4.4 Other Neglected Rule: Not Recognizing What It Takes in Combination to Succeed

If success and failure are two sides of the same set of innovation rules, then it is critical for management to build an overall mental model of things that determine success, and check whether all these conditions, without exception, are being met. Ad Huijser, the charismatic former CTO and Research President of Philips, the Dutch technology-based company, developed his own formula to illustrate the conditions that need to be met to guarantee success in the market, i.e. the combination of technology leadership, product leadership and access to market (Fig. 4.3).

The probability of achieving *technology leadership*, according to Huijser, is conditioned by at least three factors:

- The overall technological position of the company;
- The proportion of proprietary technologies in its portfolio; and
- The patentability of key product technologies.

The probability of reaching *product leadership*, he claims, results from three additional factors:

- Uniqueness of the product concept;
- Manufacturing scale and cost advantages;
- The patentability of key process technologies.

Finally, the probability of gaining *market access* depends on three conditions:

- Internal familiarity of the company with the market;
- Access to adequate distribution; and
- Ease of transfer of the corporate brand reputation to the new product.

By presenting his success formula as a multiplication of three probabilities, each one expressed as a number between 0 and 1, Huijser purposely showed to his staff that the overall probability of market success would always be minimal unless the company worked on all three elements of the equation. R&D leaders, he felt, did not question the need to achieve technology leadership, but they needed to realize the extent to which other factors also conditioned success. Applying his formula to Philips' innovative projects had a sobering effect on the attitude of his staff and drove their determination to ensure all other elements were addressed. Ultimately,

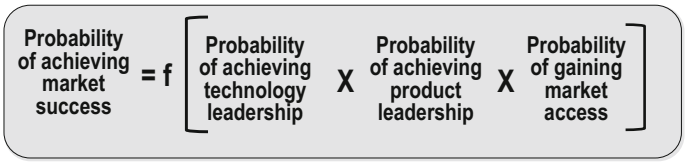

Fig. 4.3 The Huijser innovation success formula. *Source* IMD class materials from Ad Huijser, former President of Philips Research

the Huijser formula became a kind of reference model in Philips to judge new business projects. He explained: "Leaders used it for that purpose, not to say 'yes or no' to a particular project but to guide the activities and to put money and attention to where it is most needed. Focus indeed shifts over time from left to right in the formula".

The rest of this chapter will review a few of the classical issues in achieving technology leadership, product leadership and market access and their root causes.

4.5 Addressing Issues in Achieving Technology Leadership

There are a dozen reasons why companies can fail to build a technology leadership position, the base on which most innovation efforts are rooted. The most obvious ones are the lack of competences and the dearth of resources to build or acquire them. Others relate to poor technology choices, often reflecting an ineffective management of R&D. Given the focus of this chapter on strategic decisions that contribute to innovation failures, two cases are worth stressing: (1) being unclear about the impact and timing of disruptive technologies, and (2) ignoring or downplaying customers' perception of the value of a particular technology. Once again, several root causes are at play in each of these two cases.

4.5.1 Being Unclear Regarding the Timing and Impact of Disruptive Technologies

For most companies, the rapid development of technologies in all kinds of disciplines is hard to follow. Some of the new technologies that are announced by scientific media are years away from concrete economic applications. Some may actually never make it. Others, the truly disruptive ones, will revolutionize industries. Take the case of a producer of traditional photovoltaic panels looking at the outlook for Grätzel cells, a new dye-sensitized solar cell technology being developed at the Federal Polytechnic Institute of Lausanne by Prof. Grätzel, laureate of the Millenium Prize, Finland's equivalent of a Nobel Prize for technology. Given its specific characteristics—the possibility of producing electricity through a transparent film that can coat all windows in a building—this technology has the potential to disrupt the entire silicon-based photovoltaic industry. But the technology is still at the lab level, and even though pilots are operating satisfactorily, its cost/performance outlook remains unknown.

Leaders confronted with such new technologies face complex dilemmas: Should we invest or not? And if we do, within what time frame and at what level? The danger comes from investing either too soon, too late or too conservatively. Failures

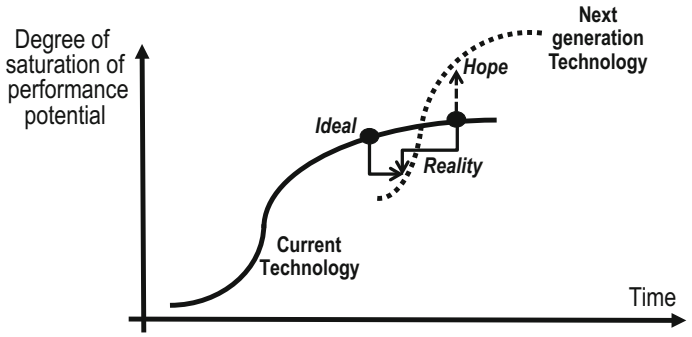

Fig. 4.4 The "jumping the curve" dilemma. *Source* IMD class materials from Jean-Philippe Deschamps

will typically result from leaders being unprepared to jump the curve, or if late, from being unrealistic regarding their own learning curve, as illustrated in Fig. 4.4.

Assuming the next technology—often known as the next S-curve—shown on this illustrative graph is perceived as promising in terms of its cost/performance outlook, farsighted leaders will typically jump the curve at an early stage (albeit not too early, at least not alone). They will invest in the new technology to shape it for the desired application. Slower or more conservative companies will wait for the validation of the potential of the new technology before jumping the curve. Their hope may be to catch up without wasting time, which often proves unrealistic. In practice, these companies cannot bypass the learning curve that their competitors followed and they lose precious time. In some instances they may even be unable to catch up.

The main root cause behind this situation is a lack of technology intelligence, sometimes combined with an unwillingness to give up investments in the old technology, either for emotional or, more often, economic motives. The well-known story of Kodak's reluctance to embrace digital photography is an excellent example of a company failure caused by its management's unwillingness to jump the digital curve in a big way and its choice to stick with its huge investments in its highly profitable silver-halide photo technology. The sad side of the story is that clear-sighted leaders within Kodak had pioneered digital photography at its inception but were later left hanging without resources. The Kodak failure story is yet another illustration of prescience error—i.e. not seeing that digital photography was bound to replace almost entirely the traditional photo technology—and obstinacy error—i.e., refusing to write off its huge network of chemical plants and labs in order to invest heavily in digital applications.

4.5.2 *Ignoring or Downplaying Customers' Perception of Technology Value*

For most scientists and engineers, all the new technologies that their lab develops or implements are exciting. If a new technology works cost-effectively and provides tangible benefits to their products or systems, they will not ask further questions. They may not be aware of—nor will they pay particular attention to—how their customers and end-users, often influenced by the media, will perceive that particular technology. This attitude may explain why certain technologies—consider for example genetically modified agricultural products—face strong resistance in some markets. Customers may well see the benefits being targeted by the scientists, but they imagine or perceive other drawbacks in that technology and thus abstain from adopting it. In other cases—consider probiotic yogurts—the dilemma for manufacturers is to explain to consumers the nature of the benefits provided by their technology. Some fresh-dairy managers at Nestlé recognize that the success of their competitor—Danone—is largely due to its smart marketing communications, which enabled consumers to visualize the benefits of probiotic yogurts. Nestlé had a similarly effective technology but was less able to communicate its benefits to consumers, hence the lesser success of its LC1 brand.

A marketing specialist from a leading European car manufacturer explained this phenomenon by suggesting that the adoption of a new car technology is conditioned by two parallel elements: (1) the perceived value provided by the technology, measured according to the customer's own value system; and (2) the perceived complexity, cost, risk or other negative aspect of that technology, rated against the customer's subjective mental model. Figure 4.5 illustrates how these two elements apply to various automotive technologies.

This car marketer advocates that this kind of table explains why certain ancient technologies, like airbags, were easily accepted by the market. Consumers quickly perceived the benefits of the technology because they could visualize a balloon inflating instantly to protect their face in case of frontal shock without realizing the

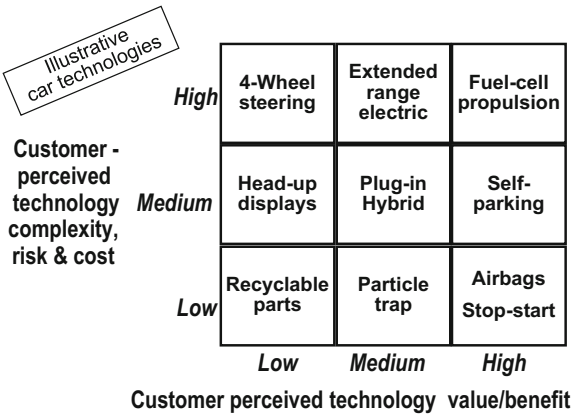

Fig. 4.5 Customer value map of new technology. *Source* IMD class materials from Jean-Philippe Deschamps

technical complexity of implementing that technology nor envisaging its other negatives. The same can be said about the stop-start technology. It is wrongly perceived as being simple but its benefits on fuel consumption can be easily grasped. At the opposite end of the spectrum, 4-wheel steering, which provides tangible benefits when cornering, was not appreciated by consumers, who saw it as a costly and unsafe solution and could not imagine driving with a technology that they perceived as overly complex for a wobbly result. The Japanese car manufacturers who developed it at great expense had to shelf the technology, and its use was long limited to a few niche sports applications. So, customers' perception of the value of a given technology matters, irrespective of whether or not that perception is objectively founded. Companies that do not pay attention to this factor may be in for a surprise when their product hits the market.

The main root cause behind product failures linked to customers' reluctance to buy or trust a new technology is a lack of research on technology adoption patterns, which often reflects excessive confidence in the power of technology irrespective of its perceived usability. Technology leaders need to understand the environment of their customers and users and their typical attitudes and expectations regarding technology. The challenge is, however, to avoid trusting blindly their customers' expressed views and declared purchase intent for a new and unknown technology. When developing a new technology, leaders should ask the following questions: (1) Will our technology address a priority need that is either unmet or ill met? (2) Will it have a strong impact on that need? And most importantly, (3) will it be seen as valuable and low risk? In other words, will the tangible benefits of our technology be fully perceived by customers?

4.6 Addressing Issues in Achieving Product Leadership

Even when the technologies adopted by a company are promising, there are many ways it can fail to achieve product leadership. Leaving aside quality or economic factors like an untenable cost position vis-à-vis competitors, the majority of these failures have a managerial cause. In my experience, two of these cases stand out: (1) accepting an ill-defined product concept and/or value proposition; and (2) investing in the wrong product design attributes or features.

4.6.1 Accepting an Ill-defined Product Concept and/or Value Proposition

Logitech is a remarkably innovative company. Yet despite—or because of—its creativity, it has experienced a few product failures. One of them, years ago, was its io Personal Digital Pen™, a technological marvel that was supposed to revolutionize the way people take, record and file notes, and how they share them across distances

(Pahwa and Deschamps 2003). The big dilemma that Logitech innovators faced was identifying priorities in terms of users and applications. Their io Pen could be used by students in class, lawyers in their cabinet, engineers working and sharing their work in labs across the world, doctors writing prescriptions, sales people writing their reports, and many other users for endless other applications. The beauty of it was its unlimited application potential, but this is also what made the innovation almost unsalable! How can a company promote such a product when each potential user has a different application pattern? And how can it convince these different users to move on from the ubiquitous pencil, or the felt or roller pen? After trying for several years to market its product, the company had to drop it.

Besides a few product issues that constrained its sales potential, Logitech's problem was essentially its product concept and value proposition. Confronted with an apparently unlimited market potential—replacing the pen in all its applications—the company's strategy was to adopt the classical response: *raise the flag and see if anyone salutes!* In other words: let us see which market segment buys it first and for what usage, and then we shall adapt our marketing accordingly. In doing so and by bypassing thorough customer and applications research, Logitech was unable to fully define its product concept. It could answer two of the classical questions that help define a product concept:

What is the product? (i.e., Product description/Objective product identity/Product configuration/Components/Underlying technology);

- *What does the product do?* (i.e., Application/Functionality/Key attributes/Performance (objectively defined);

But by failing on customer research and segmentation, the company was unable—or unwilling—to define the last two product concept elements:

- *What customer groups is the product targeting in priority?* (i.e., Target markets in terms of nature, geography, channels/Most valued customer segments);
- *What will the product mean to those targeted customers?* (i.e., Perceived image/Identity/Personality/Perceived performance and benefits).

Similarly, Logitech did not fully clarify its value proposition. It only managed to clearly define one element of its value proposition by answering the first question:

- *What is unique in the concept?* It managed to do this in terms of the product itself and the customer experience.

However, the absence of a thorough customer usability study prevented it from being able to answer the second question:

- *What is attractive in the concept?* Notably for which customer segment and against what alternative solution?

This, in turn, made it difficult for Logitech to answer the last question:

- *For what price positioning?* i.e., How will customers perceive the real usage value of the product and, hence, how much will they be prepared to pay for it?

The main root cause behind product failures linked to poor product concept definition or a shaky value proposition is a deficiency in the early stages of the product decision process. This reflects either a lack of constructive challenging on the part of senior product managers, or shaky compromises. This is often the case when one function—which could be marketing, R&D or engineering—dominates the product decision body.

4.6.2 *Investing in the Wrong Product Design, Attribute or Feature*

Innovation success often results from introducing products or services that delight customers, particularly in areas that they value most. Apple's iPhone was adopted rapidly, largely because of the appeal of its design. It redefined the standards that had been proposed for years by mobile phone leaders such as Nokia, Motorola, RIM/Blackberry and others. Of course, many other aspects or features played their role, but Apple's unique design gave it a differentiating advantage. In most industries the basis of competition is becoming increasingly broad. Products have to meet the expectations of their customers on a growing number of attributes. The challenge is double: On the one hand, companies have to reach a balance by covering all meaningful attributes reasonably well without incurring a major deficiency. On the other hand, and to avoid a bland positioning, they have to choose one or a few differentiating attributes on which they can offer a superior performance or quality. The difficulty is of course to privilege those attributes or features that will be most appealing to customers. The choice of these privileged attributes is therefore critical, and companies that choose the wrong ones can expect disappointing results.

To help make this tricky choice, management can follow the value innovation methodology advocated by Kim and Mauborgne (1997) and create a new value curve by answering the following questions:

Which of the factors taken for granted by our industry should be eliminated?
Which factors should be reduced well below the industry's standard?
Which factors should be raised well above the industry's standard?
Which factors not previously offered by the industry should be created?

As an alternative—because the two approaches share the same philosophy—they can use the Kano model that categorizes attributes on the basis of their impact on customer satisfaction.[1] As shown in Fig. 4.6, attributes can be categorized in three ways

[1]The Kano model is a theory of product development and customer satisfaction developed in the 1980s by Professor Noriaki Kano, which classifies customer preferences in various categories.

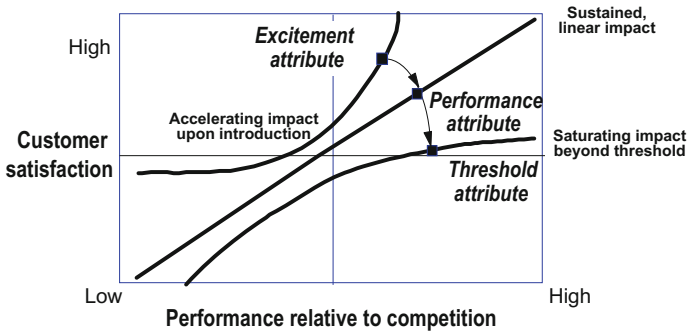

Fig. 4.6 Kano diagram—evolution pattern of various attributes over time. *Source* IMD class materials from Jean-Philippe Deschamps, based on Kano diagram concepts

Performance attributes. They have a sustained linear impact, i.e. the more a company outperforms its competitors on these attributes the higher will be its customer satisfaction.

Threshold attributes. They have a saturating impact beyond a certain threshold, i.e. offering more performance beyond a certain level does not lead to a proportional increase in customer satisfaction.

Excitement attributes. They have an accelerating impact on customer satisfaction upon introduction and can trigger customer delights, possibly because these attributes were neither expected nor available before.

By using this approach, marketers will naturally focus on identifying possible new excitement attributes—like design for Apple. They will also be careful about over-investing in threshold attributes that will only marginally increase customer satisfaction, and they will become aware that most attributes, even excitement attributes, become threshold attributes at one point in time.

Logitech provides a good illustration of a successful selection of attractive product attributes for its small new "cordless presenter" (Barnett Berg and Deschamps 2003). Unlike what happened with its io Pen, which resulted from a typical technology-push effort, the head of engineering personally conducted customer research by holding a number of insightful one-to-one interviews with people who made frequent presentations with the objective of understanding their experience as speakers. The purpose of these interviews was to identify the most important outcomes expected from a cordless presenter—or "clicker" as these products are sometimes called. This research led to a short list of critical attributes most interviewees expected, in that case extreme simplicity of use and the possibility of controlling the speaker's timing. These attributes happened to be quite different from those originally expected by Logitech's developers in engineering, and they clearly contributed to the product's ultimate success in the market.

In conclusion, the main root cause for failing to choose the most relevant attributes for customers is a reliance on a traditional—and sometimes simplistic—approach to customer research, basically asking them what they want. As shown in Fig. 4.7, in a customer-centric approach, management goes far beyond customer

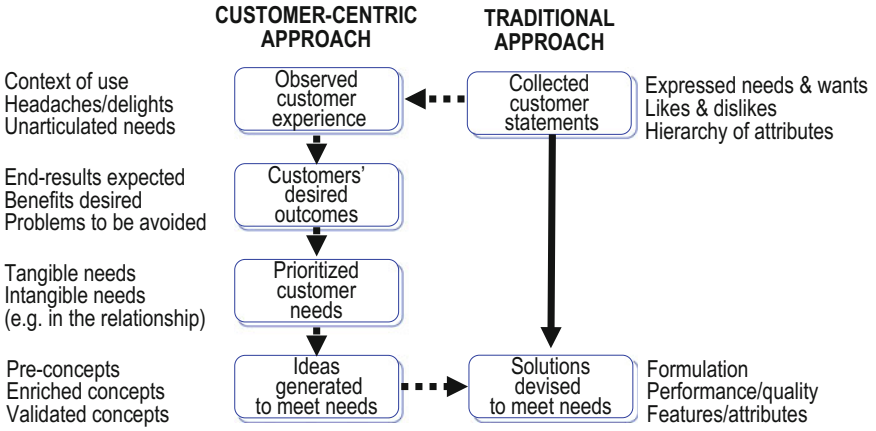

Fig. 4.7 Customer-centric approach to design new products. *Source* IMD class materials from Jean-Philippe Deschamps

statements about their wishes or dislikes. They encourage their staff to immerse themselves in the customers' world to understand their experience and probe for unarticulated needs. The approach then focuses on clarifying the customers' desired outcomes and implicit prioritized needs.

Because customer needs do evolve, failures also stem from a lack of dynamic modeling of these customer preferences. In most markets, and due to changes in the customer environment and the impact of social networks, past customer data tends to age rapidly and relying on them leads to poor product positioning and failures.

4.7 Addressing Issues in Getting Access to the Market

Once again, even with a great technology and product, there are many obstacles on the way to the market. Putting aside obvious problems linked to poor marketing communications or inadequate salesmanship, experience shows that there are two strategic marketing issues that can ruin a smooth market launch and lead to failures: (1) neglecting to seek the acceptance of all parties in the value chain; and (2) seeing acceptance by early adopters as a market green light. Let us explore these issues and their frequent root causes.

4.7.1 Neglecting to Seek Acceptance by All Parties in the Value Chain

The successful launch of an innovative new product or service is always conditioned by the need for that product or service to receive a succession of "YESes," or

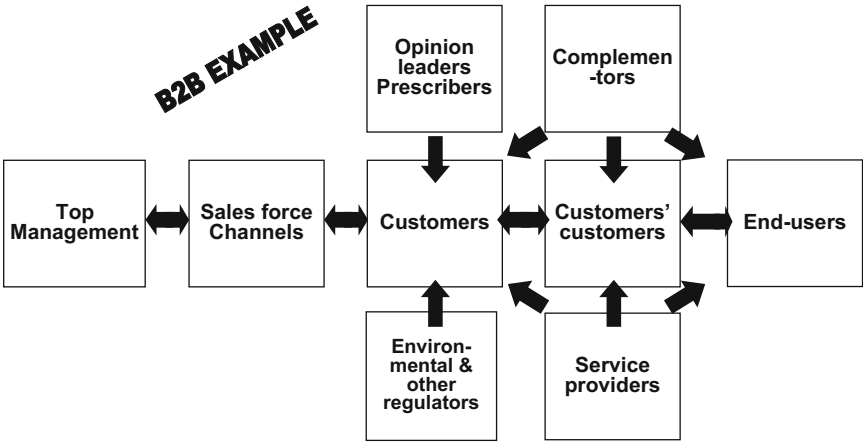

Fig. 4.8 The product adoption chain. *Source* IMD class materials from Jean-Philippe Deschamps

at least favorable comments, from the many parties who have to adopt it, both within the company and in the market. A single "NO" will typically break the new product or service adoption chain. Figure 4.8 shows a typical adoption chain for a new product in a B2B environment.

On the horizontal axis are all the parties that have to accept the innovation in sequence. It starts internally with the top management team because they have to fully back the launch and accept the risks involved in the process, e.g. launch costs; possible damages to the company brand or to its relationships; product/service liability, etc. Then the sales force also has to adopt the new product or service, which is not always the case as their compensation package often induces them to push the easy-to-sell, profitable products rather than unknown ones with uncertain potential. Distribution channels—dealers, importers, agents, etc.—have to accept to take the risk of introducing the new product in their catalogues and make the effort and spend the money to convince their customers to accept it. Of course, customers have to be approached and be willing to give it a try despite the risks, and they may have to also convince their own customers down the value chain to adopt it as well. Finally, the end-users will have to adopt the new product as well.

But there are other parties who may also have their word to say on the launch. First, opinion leaders and prescribers, who often play a key role in promoting technical products. Then, environmental and other regulators for certain products. Finally, complementors—think of suppliers of accessories—and service providers, who also have to accept the product and gear up to support it. If any of these parties refuse to accept the product or service, or to back it up, its future success is greatly compromised.

Mastering the new product adoption chain can be tricky when the interests of the various parties in the chain are in conflict, i.e. when the demands of one element in the chain go against the wishes or preferences of another. The challenge for

management is therefore to identify potential differences of opinion across the adoption chain and try to mitigate them. For example, if the sales force is reluctant to spend much time promoting the new product, management can probably review its measurement and incentive system. It can also decide to privilege one element in the chain, sometimes against the interests of another, as Tetra Pak did on the issue of package openings. Originally, the company's milk or juice package, Tetra Brik™, had no opening. The package was perfectly rectangular and therefore easily stackable on pallets. The savings in materials costs and logistics were of great interest to Tetra Pak's customers—the dairies—and their customers—large distribution chains. But the lack of opening in the package was strongly resented by the end-consumers. Tetra Pak was fully aware of these conflicting interests, but stuck to its no-opening strategy until the pressure from consumers became more intense and competitors started offering openings on their packages. This change of strategy had to be effectively explained and sold to its customers and their distributors.

Neglecting to seek the acceptance of all parties in the value chain usually stems from a lack of understanding of the position of these various players, notably their reasons for accepting or rejecting an innovation. It generally reflects a predominant focus by the company on one element in the chain, typically the direct customers because they are the ones who pay for the product or service. The attitudes of other elements in the chain may be ignored or not taken into consideration despite their potential impact on the success in the market. It is therefore highly advisable to carefully investigate the attitudes of all elements in the chain on the basis of three considerations and questions:

- All parties in the value chain have a preferred solution to meet their needs. What is their current solution?
- The company's new product or service would probably require them to change their current approach. Why should they reject their satisfactory status quo?
- Switching solution may be costly, risky and troublesome for them. What would induce them to switch and adopt the company's new product or service?

4.7.2 Seeing Acceptance by Early Adopters as a Market Green Light

This second issue in gaining market access explains why many new products or services are not successful in the market despite positive initial reviews. There are always groups of customers ready to give any new product or service a chance, but these early adopters are by far not representative of the entire market. In his book *Diffusion of Innovations*, Everett Rogers proposed a categorization of adopters on the basis of innovativeness (Rogers 1995). Rogers categorization has been widely circulated, and it was at the origin of another book, *Crossing the Chasm*, by Moore (2009) (Fig. 4.9).

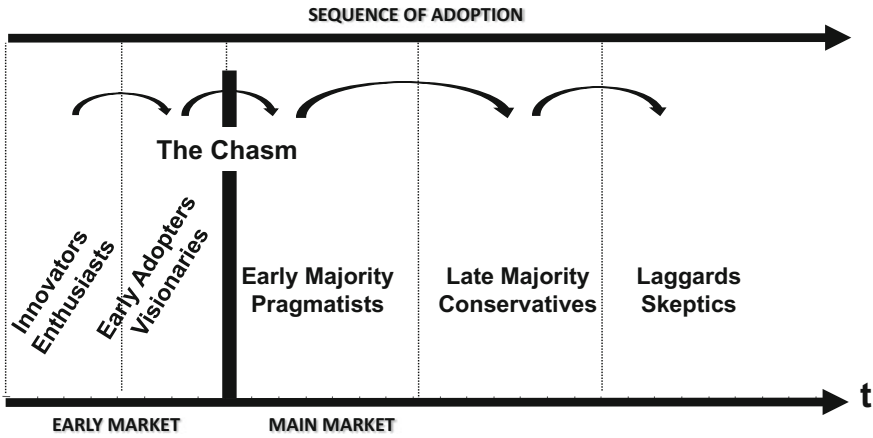

Fig. 4.9 Adopter categorization based on Rogers and Moore. *Source* IMD class materials from Jean-Philippe Deschamps, based on concepts from Everett Rogers and Geoffrey Moore

Both authors propose five identical adopter categories with a slight difference in terminology: Rogers talks about *Innovators, Early Adopters, Early Majority, Late Majority,* and *Laggards,* while Moore calls them *Enthusiasts, Visionaries, Pragmatists, Conservatives,* and *Skeptics*. Moore's major contribution is to stress the "chasm" that exists between the two first categories of adopters and the rest of the market. Crossing this chasm, he claims, is a condition for "bringing cutting-edge products to increasingly larger markets."

Many companies struggle to cross this strong market barrier that separates early adopters from the rest of the potential market and innovation success. This usually reflects a lack of management understanding of the different attitudes and perceptions of each adopter category. A product that will be strongly backed by early adopters, for example owing to its technical sophistication, may actually be rejected by more conservative customers for the opposite reason, i.e. its technical complexity. If the company is very technology-intensive, its developers will naturally monitor those they see as their "fans," in most cases early adopters. They may therefore decide to launch a product without testing it on more "average" customers. So the root cause behind failures of that type may be the lack of a convincing argument for each type of adopter. Companies do not invest enough in characterizing the needs and reactions of each category of adopter.

There are different approaches to anticipate the probability of a new product being adopted by a majority of customers. Rogers, for example, has proposed five criteria that have a strong influence on a new product's adoption rate. These criteria are particularly useful to determine customers' reactions in a B2B environment:

- *Relative advantage*. How much better is the new product versus the product that customers currently use?
- *Compatibility*. Can the customer use the product without changing its organization and infrastructure?
- *Complexity*. How easily and fast can the customer deploy the new product without too much training?
- *Triability*. Can the new product be tried easily and at no or low cost?
- *Observability*. Where can one see the new product being used?

There is another list of five criteria for B2C products that some marketing leaders call the "5-A" checklist:

- ***A**wareness*. Are customers aware of the existence of the new product?
- ***A**ttractiveness*. How will customers appreciate the benefits of the new product?
- ***A**ffordability*. Will customers be able to afford the product without too much sacrifice?
- ***A**vailability*. Where will the new product be available?
- ***A**ccessibility*. How easily accessible will the new product be for each type of adopter?

The two approaches are obviously complementary. Applying these various criteria to each adopter category provides insightful results on the chances of success of a new product. For this reason, successful innovators tend to raise these questions at the product conception stage, i.e. before the product is actually developed.

In other words, it is essential to reflect on adoption criteria very early in the new product development process. This is the best way to avoid bad surprises at the commercialization stage.

4.8 Conclusion

Innovation failures are often caused by a functional disconnect, primarily between the company's R&D and business sides. This disconnect is usually more profound on long-term issues. Organizational silos typically accentuate this situation. They favor a "functional isolationism" whereby each function does "their things" without sufficient collaboration. They also prevent people from building on each other's ideas and can even lead to infighting on ideas and budgets. The problem is often aggravated by domineering attitudes that prevail when a function or a particular side of the business dictates its conditions to the rest of the organization. Such situations reflect a lack of leadership on the part of the top management team and deficiencies in the innovation governance system put in place by the CEO.

Many of these failures can be overcome by encouraging a true partnership between the R&D, engineering functions and marketing as well as more generally with the business sides of the organization. This type of partnership is particularly

necessary for collecting market intelligence and defining customer problems and concerns worth addressing. Management should also encourage humility and learning, notably through thorough and honest "post-mortem" project debriefings, particularly in the case of failures. As Oscar Wild reportedly stated, "Why make the same mistakes twice when there are so many mistakes to choose from!" Geoffrey Moore added, "If you are going to fail, at least have the courtesy to do so in a new and interesting manner!"

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