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## ORGANIZED BUT DYSFUNCTIONAL

To apply Ronald H. Coase's acerbic remark in his essay *The Nature of the Firm*, that "Economic theory has suffered in the past from a failure to state clearly its assumptions" to a high tech corporation would not be far-fetched. In failing to state the assumptions behind their organization model, these high technology corporations leave a large segment of their employee base wallowing in generalities.

Take a semiconductor company for example, large or small, fab-less or fab-equipped. The outward view, the view as seen by the press, the analysts, the industry watchers and young graduates aspiring to secure employment in this sector, of how it is *organized* is the *same* across nearly *all* the chip companies.

All these companies project more or less the same view of how they operate. The marketing group is chartered with the tasks of

taking the pulse of the market, setting the market trends, to actively engage the customer to define the requirements for the ongoing product and to figure out what the next killer product might look like. The engineering groups focus almost exclusively on building the product itself, concentrate on the day-to-day research, design, development and productization.

Much of this organization is carved out following largely a garden-variety comprehension – in an almost cookie-cutter like approach – of *what* needs to be done to achieve business goals: if you build a competitive product, deliver a time to market value proposition to the customer and minimize costs, then you are more likely to succeed and there is really nothing more mysterious to this business and that's that.

But is this enough?

## THE HYPE

Most engineering minds in high technology corporations impulsively shirk at the mention of the words such as “time to market,” “competitive advantage,” and “differentiation.” For them, these words are nothing but empty, vacuous concepts that do not exist except in the minds of the marketer.

Add to this a pedantic reification of these words by most novice marketers.

If you are an engineer, ask any one of these novice marketers on what differentiation means. He will tell you in how many ways your competitor's product is *different* from the product you designed by clinically comparing the features (which is *not exactly* how one should think about differentiation, as we shall see in the book.)

Often it is difficult to separate this marketer's personal opinions from real customer information. As a result, there is a slow undergrowth of defiance against the marketing profession that is naturally built up within the engineering organization.

### THE CREEPING MALAISE

The net effect of all this is an unspoken malaise that is prevalent at these companies. It lies at the heart of the company, in the day-to-day interaction between the cross-functional groups of the marketing, engineering, the operations and the sales. Every day the people who work in these groups are subject to this malaise.

Though hard to capture it into a specific form, this malaise can be seen at play in the ever regressing relationship *between those who build the products – the system architects, the designers, the programmers – and the marketers whose onus is to define, market and sell these products.*

Far more clearly seen when a product fails, a peculiar kind of fear seizes the rank and file of the company. This fear is often accompanied by a forgetting of the capability to make sound decisions. Soon the individuals find themselves waging egotistical turf wars in inter-personal interaction.

Communication often is the first victim of this malaise. Marketers and engineers routinely put the entire businesses at risk by doggedly pursuing their own unexamined views. Decisions on what constitutes the right feature, the right product and the right schedule, are often made oblivious to the dangerous effects of such an insular attitude on the fragile customer relationship.

An inexplicable flippancy frequently characterizes a marketer's view of the engineer's world and vice versa. At a time when the market opportunity windows are closing with a far more rapidity than in the past, the semiconductor industry professionals' obsession with a mere technology superiority seems woefully out of place.

All of this is amplified by an almost schizophrenic tendency of the middle management at these companies. Caught in the paranoia of stagnant careers, the middle management seeks fervently for an equal treatment from the higher level executive management but falls short in conferring the same sense of teamwork to the members of its peer level and understudy groups.

It is often this group of middle-level employees that confuse the hard-to-master decision-making skills for the executive power.

Ultimately, the havoc wreaked by this malaise leads to a slow bleeding of the decision making skills from the rank and file. A systemic reluctance to go beyond the call of the duty creeps in. A culture of awkward abstention from crucial decision making prevails. The employees at these companies dead reckon their way through the maze of the day-to-day busy-ness. When stopped in the middle of the track and be faced with a decision, too often they are caught without any clear cut reference point that helps them take a position.

It is as if the people at the company are each riding a unicycle while juggling balls in the air and suffer from the limited maneuverability of, well, riding a unicycle. Although there is a good deal of meticulous balancing involved, there are too many jerky movements, trying to compensate for the continuously slipping center of gravity. And the funny thing is no one really goes anywhere on a unicycle, at least not far enough to call it much of a progress.

When the employees are caught in this turmoil quite often the battle is brutal. The end result is a slow decaying of the life in the corporation with inter-personal relationships teetering on the edge.

For the executive management no problem poses a more threatening challenge than this creeping malaise.

But what *can* they do? The sheer variety of reasons behind such a malaise can make it impossible to grasp the source of the problem. The easy tendency, then, is to look at the current organization as a whole as a source of the problem and to wonder if a reshuffle might help stabilize. So the management employs various corporate work-life improvement tools such as the team building exercises, career enhancement techniques, crash courses on strategic thinking, vision statements, motivational speaking sessions etc.

But none of these tools seem to intuitively leap out in front of the employees at the time of the need and come to aid them through these situations.

It is because the problem lies elsewhere. Something else is at play here. Something more fundamental.

## **OUR APPROACH**

Our approach in this book is markedly different from what one would expect out of a typical book on high technology execution. Let us explain it.

## **THE SEMICONDUCTOR COMPANY FOCUS**

First, a note on the industry sector focus for this book.

No doubt such execution failures are to be found in *any* high technology corporation, wherever technological innovation drives the growth, so one might be tempted to speak in generalities. Nevertheless any useful discussion of such failures will have to elicit the *specific* ways in which these failures manifest themselves. A mere high level approach from the top will not do.

On the other hand, such an insistence on the specifics almost always requires an explicit focus on a *particular category* of companies. To this end, wherever real life examples and real life companies are discussed in this book, the focus is usually on a semiconductor company, as it is the author's background.

While the lessons learned from this investigation may serve the readers with semiconductor background particularly well, we believe a broader audience will benefit from the emphasis we place on learning *how to think* to avoid such failures.

## **A LAYERED PRESENTATION**

Next, a few words on a particular kind of thinking that we want to follow in this book.

We start our investigation with the following premise: despite that we are here talking about a high technology corporation, *neither the kind of market strategy nor the kind of technology itself matters* that much as far as the thinking goes. This premise runs throughout the course of this book.

With that premise set in the background, the book itself progresses in a two-layered manner, as explained below.

### **LAYER 1: IT'S NOT ABOUT THE TECHNOLOGY**

First of all, we are going to set *aside* the entire aspect of the technology throughout this book. By this we mean that any or all *technical* aspects of the high technology industry are out. No discussions on how the latest semiconductor process technology has radically altered the landscape of computer and the consumer electronics. Nor are we going to dwell on the incredible strides made in the digital communication technologies which are enabling wireless and gigabit internet speeds.

What is left then? With all that technology clutter gone, what emerges in front of us is a clear view of the way we engage and interact with the *results* of the technology: the *products* that we use every day at work and in our homes.

It is at this underlying layer, previously hidden from us, that we find something very interesting.

We find that this underlying layer is a hotbed of value construction. In what way?

First, all that we *do* takes place at this hotbed, though without us being too conscious of it.

Second, and more important, is the role played by *a context*.

We are going to introduce and talk about the phenomenon of context. Whether it is as a consumer or the designer of these products, the *manner* in which we interact with any technology product is a function of *a particular context* we find ourselves in. How we come to associate a particular utility with a particular product, the construction of meanings, the affinities that shape the value of a product, all of it happens in a context. As we lift the veneer of the technology clutter, we are suddenly exposed to this underlying view of a thousand contexts, each of which shapes the perception of what a technology product means to us.

It is a view that also offers something unique to us: it takes our habitual awareness of the economy as this huge, almost undecipherable, nebulous, and a boundary-less blob of a “market

force,” and breaks it down into a set of a specific human *experiences* that constitute the economic activity.

In other words, this view demonstrates to us once for all that our very *economic activity* is largely driven by the multitude of contexts that we find ourselves in.

### **ARTICULATION IS HALF THE PROBLEM**

As long as we do not comprehend this underlying layer, we are left with nothing but the details of the technology, with the details of a market strategy in which to look for the source of the execution problem. As long as our view of the origins of the economic activity remains *disconnected* from the underlying multitude of contexts, we are forever relegated to the clutter of the technology and the source of the execution problems eludes us.

Why is this so? What do these multitude of contexts have anything to do with the execution problem?

It is our belief that, strange it may seem, the quality of execution is intricately tied to the very economic activity that we all bring about in our everyday lives.

This powerful underlying hotbed of a thousand contexts, that we are about to bring to light in this book, is always present with us, whether we are a consumer or a producer. In fact it is present with us whether we are employed in a high technology company or not.

But, *when placed in the purview of a high technology company context*, this underlying hotbed becomes a fundamental reality that shapes the worldviews, the *actions*, the *decisions* and eventually the *execution performance* of each individual in a company.

As a consequence, we must turn to this company context, this underlying hotbed, to find the source of the execution problem. We predicate our book on the belief that, there *is* indeed this unarticulated reality, hidden beneath the official roles that distinguish the employees from one another. A significant part of our initial focus in this book is in *articulating* this reality.

As we begin to comprehend this underlying reality, the light starts to shine on terms such as “differentiation,” “utility” etc., in a unique way. These terms are not just concepts anymore, but

unique and basic economic *experiences*. Our understanding of these terms becomes clearly grounded in the context-driven economic activity that we engage in. For example, we demonstrate how the idea of a market differentiation can be thought through in terms of clear and distinguishable occurrences of a human experience, even as we engage in economic activity.

## **LAYER 2: DEMYSTIFYING EXECUTION**

Armed with this new understanding of the contexts, we then take the next step.

Remember that in Layer 1 we peeled off the outer layer of the technology and dug into the underlying layer. Now we go back. However, this stepping back does not return us to the technology level, but takes us to a space in which the day-to-day practice of execution takes place. Not surprising, considering that our whole investigation is centered on the experience of the individual employee in the high technology company.

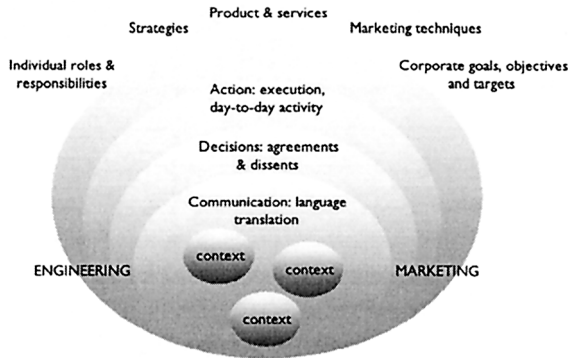
In this second phase, we undertake the task of demystifying the execution. Throughout this phase, we continuously apply the framework we developed in Layer 1.

## **BREAKDOWN IN EXECUTION**

So what can we say about the failure of the execution?

The reality in which the high technology company's day-to-day execution takes place is a microcosm of the decision making, the mutual agreements and mutual dissents among people of diverse backgrounds and perspectives. It is a vibrant playing field with a variety of contexts in which the engineering and marketing groups find themselves even as they engage each other in various joint projects to achieve corporate goals.





Microcosm of a High Technology Corporation

This microcosm is marked by the difference in the languages spoken by these two groups, the ensuing challenges in the communication, the agreements and dissents which motivate the actions of the individuals.

When viewed in this manner, the *execution* aspect boils down to three factors: understanding the context, choosing the relevant information and making the right decision in a timely manner.

We believe that it is the break down of these three factors that constitutes the break down of the execution. The failure to understand the context, hanging to an irrelevant piece of information either because of its strength of appeal or because it is one's own opinion and finally the fear of making the decision, are the manifestations of this breakdown.

#### EMPHASIS ON THINKING LIKE A MARKETER

Then, what about the interaction between marketing and engineering groups? If the gap between marketing and engineering were to be the result of only a lack of understanding of the marketing *processes*, then our task would be easier. Just provide an overview for a set of standard marketing practices, tools and techniques as they pertain to high technology marketing and that should suffice.

But as we observed earlier, we believe a proper way to close the gap is to provide an insight into how a high technology marketer *thinks*. The standard marketing techniques and practices, while they are useful, are simply the *result* of a particular kind of thinking that a good marketer is attuned to. These standard techniques do not often provide an insight into the actual thinking itself.

Which is where the application of the context framework comes in.

We are interested in showing the underlying thinking behind the high technology marketing *function*. We believe *everyone* in the company should be conversant with this kind of thinking.

After the context framework is fully developed, the focus in this book turns to the day-to-day context of the semiconductor company. The approach we have in mind is to stay close to the ground and chart the gradual progression of a chip company from its initial product conception stage, through an initial customer approval, to a successful design win and finally the delivery of the solution to the customer.

## **MOTIVATION**

Finally, a note on the motivation behind this approach.

If you are an engineer who has just made a career transition into a product marketing role, chances are you will soon realize the following.

First, the specific activities you need to do as a high technology marketer, such as how one goes about defining the product, the mechanics of working towards a design win, what is involved in qualifying a customer, etc., *are not written down* anywhere (though there are good marketing strategy books out there.)

Second, the success of a high technology company is so intimately tied to these specific activities that if you didn't master the skills of how to execute them, at least be aware of them, there is a good chance that your value to the company is minimal.

Therein lay the dilemma. If there is no reference source that tells you what type of skills sets you must develop, what kind of specific activities you need to perform, how to prioritize them, how to make

decisions, how to *think like a high technology marketer*, then how is one to know *what* to execute, let alone know how to execute?

Current literature offers no guidance because it talks only about a high-level strategy, not the day-to-day execution. Learning from one's colleagues and peers at workplace should not be the only way around this dilemma.

Hence, a systematic understanding of the high technology execution is absolutely critical to the execution success of the entire company.

### **NOT A PRESCRIPTION**

Although we occasionally provide a few suggestions on what we think is the right way, this book is in no way a prescriptive, a "how to" book. There are no short cuts, no new strategies, no new buzz words.

As a result, the tone and approach of this book is decidedly exploratory. What *is* new is the approach to the thinking. This book exposes the reader to the craft of the thinking that is required by a high technology corporation. If we succeed in connecting the key elements of execution into a single framework, naturally we hope to learn new ways of thinking about success.

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