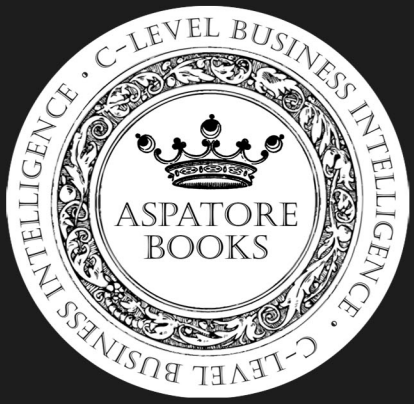
INSIDE THE MINDS™

GROWTH STRATEGIES FOR SOFTWARE COMPANIES

INDUSTRY LEADERS ON MANAGEMENT TEAM LEADERSHIP STRATEGIES. FINANCIAL AND PROFITABILITY MEASURES. AND SETTING GOALS FOR LONG-TERM SUCCESS



Dr. Parag Pruthi
NIKSUN, Inc.

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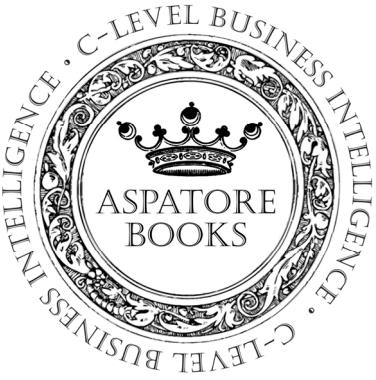

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Delivering a Long-Term Vision for Software

Dr. Parag Pruthi

Founder, Chairman, and Chief Executive Officer

NIKSUN

Defining the Vision

For a company that wants to grow and have control of its own destiny, its CEO must have a long-term vision and this vision must be embraced by everyone in the organization. This vision must also be five to ten years ahead of the market. In the software or high technology environment, to produce a product and a strategy requires at least two to three years to design, build, test, tweak, and deliver that vision. Given adequate and proper budgeting, failure of delivering on the vision can be a result of many reasons, but two are most likely: (i) a misalignment between the vision and the markets or (ii) the markets shift due to the impact of some change in the environment (often revolutionary forces). The former is a common "tunnel vision" in which many get trapped by, while the latter are events that only some can predict. For example, take the case of Netscape; while many will argue as to why Netscape failed to capitalize on its potential, it is clear that there was no shift in the market, but rather a failure to stay ahead of the market and to innovate faster than others was at least at the heart of the matter. Take the case of Lucent, which was the darling of Wall Street some years ago. Clearly, the revolution of IP networking was not embraced by *everyone* at Lucent as a dominant revolutionary shift in the market; this shift in landscape and the inability to move *everyone* in the organization swiftly to this new paradigm can be viewed as a cause of the decline in Lucent's lack of ability to deliver on its promise.

Therefore, if the strategy is not ahead of the market by five to ten years, then the solutions delivered (after two to three years) will either be late to market or not be suitable for the market and one will not be able to capitalize on the investment. It is only a very rare person who can "see" so far ahead, but it takes an even stronger personality to know when they are on the wrong track and has the courage to make changes before it is too late. Of every great leader (in the software and technology space), concrete examples can be pointed out verifying this quality. Such people do not have any issues in admitting their mistakes and have the unique quality of not repeating the same mistake twice. On the other hand, if their strategies prove to be successful, there is no force in nature stronger than the will of such a person to overcome all obstacles to see their vision through. These rare individuals will constantly tweak their vision year after year toward perfection.

Learning from such individuals, the most important thing that I constantly work upon is to anticipate far out what might happen in global environments, and build a long-term strategy. After the strategy, the next most important objective for any corporation is to deliver on its annual plan. The long-term vision should then be broken down into annual deliverables and milestones. These milestones are based on revenue, product plans, customer acquisition rates, growth, etc. With each milestone, one must build concrete metrics to measure success toward the milestones. Therefore, the ambitious vision is managed in small measurable and manageable pieces that are each refined annually leading to attainment of the larger goal over five to ten years. It is also important that if the vision is too lofty, it must be broken down into sustainable sub-visions, each of which is viable on its own from a business perspective. That is, the sub-visions themselves form a viable business entity funding the future growth of the overall business while all the pieces of the grand plan are coming together in five to ten years.

It's almost like trying to create a jigsaw puzzle. Start on a particular part of the puzzle and then build another part the next year and so on. When one is done one has accomplished the vision that one started with. In a business, however, there is no end to this puzzle so the picture continues to expand and this is where the bigger vision comes into play. A CEO must be tenacious enough to be able to update the tactical plan and/or build upon the initial strategy if there is a need for change due to the environment, while ensuring that the fundamental vision is not destroyed. The environment tells one what might be the next big thing, and one just has to be humble enough to understand the messages from the environment. For example, twenty years ago those that bet on the wireless mobility market are successful today, but these same players are constantly tuning their vision, they are constantly adapting to a changing market. Risk and reward are directly related, and it pays to take the plunge on the things you see that others might not.

The Tactical Plan

You start with a blank slate; you know you are starting from point A, and you have some idea of where you want to get to, point Z, which is your vision. Do you, however, have a plan of getting from A to B to C and then

on to Z? Or are you going to "wing it" along the way? To my surprise, I find a significant number of people are in the "wing it" category—when asked about how they plan to get from point A to point B (let alone Z), they can only talk about the great success they can have when they reach point Z (they actually do not talk about B). They really do not want to spend time figuring out how to reach B let alone Z and only think in macro principles. It is for this reason that most fail to succeed even after they are given lots of funding and resources. It is for this very reason that this step is even more important than the vision—what good is the dream if one only dreams but does not know how to make a dream into a reality?

Was it not for the meticulous planning and the ability to adapt and out-think his enemies that allowed Phileas Fogg to go around the world in eighty days? The tactical plan put together by the resident of No. 7 Saville-Row, Burlington Gardens, London, was the key to his success. A man of exacting personality took upon himself the challenge set by the Reform Club, which carried with it considerable risk but a high reward. This is indeed a great novel by Jules Verne that the modern executive should read to understand the tactical plan.

In any business where the objective is high growth, there is a risk that one has to take. That risk is mitigated by taking external input and validating what one thinks is going to happen from other sources. Are there other people doing this or thinking about this? Someone has to be the first, but if other sources validate what one has put into place then one will be safer in the vision that one has put together. For validation, market data becomes important; analysts can also validate one's ideas and peers can also provide important validation. Once information is gathered, all of this feedback has to be put into a tactical plan. Phileas Fogg did his research and put together a tactical plan that he followed as precisely as he could. The tactical plan will become the most important tool if one is to continue to grow year after year and any aspiring executive must understand its value and must spend time assembling it and refining it year after year.

The tactical plan must necessarily be a business plan with a profit and loss/cash flow statement and must have a well-balanced budget. This is where the give and take now happens—grow too fast and you will start losing money, grow too slow and possibly the competition or market will overtake

you. This is now an art form where the CEO and CFO have to go back and forth several times, each making compromises until both the financial and visionary objectives are in good balance. Initially upon inception of the company and initial funding, there is more give by the CFO, but over time there is more give by the CEO. A good team knows just what to compromise upon and when. This roadmap shows clearly how to get from A to B and more vaguely from B to C and so on, but over time the paths forward get more clear and after a while the whole step from A to Z falls into place.

The next critical phase after the roadmap is the execution of the tactical plan. If one can execute on the budget then one knows that one is on the right path, especially if one can make one's bottom line numbers while achieving good growth in top line numbers. This process is not at all about concocting something in the lab and then having success right away. In the real world, it takes an innovative iterative process to define and achieve annual milestones.

Bottom line is that at the end of the day, one has to build product that people will pay for, the revenues from which have to sustain the growth of the company. Year after year the company has to continue to grow and not stagnate. In business, it is growth that is rewarded, not innovation by itself. The tactical plan is one that ensures that year after year the company continues to grow and gain the confidence of investors, customers, employees, and everyone involved, resulting in an exponential growth that most successful companies are known for.

Establishing Metrics

So how do you know whether you are on the right path? A lot of "work" can be done, a lot of energy expended, lots of money spent, but does it mean anything? Does it amount to anything? It is for this reason that one must measure constantly along the way. Once you have a tactical plan, a roadmap, what you measure becomes easy. However, how you measure is the challenging part.

As a general principle, whatever goals are set, always try to measure how well those goals are being attained. Good leaders and good managers will have all these metrics at their fingertips, whereas unsuccessful managers will

not be able to produce any meaningful metrics even when directed. Success absolutely depends on having the right metrics guiding your every move. The right metrics are built by hiring the right people. Those who are most open and amenable to learning are usually the most successful.

Sales, for example, are all revenue based. You can easily determine the quota versus attainment for each and every salesperson. However, are you measuring this and related metrics regularly or are you only measuring attainment? The difference between success and failure can be as thin as understanding goals, deviation from goals, and strategies for attaining goals, not simply gross goals—i.e., one achieved X (which may be a relatively good number compared to the entire population), but what was the target and how well did one do in relation to the target? For example, if you give people an annual quota then you only have one data point on which to measure them. But you can break that process down into other metrics. How many calls are they making per day? How many leads are they generating based on marketing events? How many appointments do they have? The more you measure the more you can direct their and your success.

Most people will manage themselves by the lowest requirement as not everyone is a self achiever. The reason this happens is because the law of large numbers comes to play very quickly and no matter how hard one tries, one ends up with a normal distribution of personalities and capabilities of people. That is, there will be the grade "A," "B," "C," "D," and "F" all lying on a normal distribution. Thus, one has to manage the C's to B's and the B's to A's and manage out the F's and D's. One cannot do this rapidly enough without proper metrics, which are all indicative of personality and ability. Someone who is unwilling to cooperate and learn, is opposed to being measured or working with someone who can guide them, can never be successful and generally in life fall in the "D" and "F" category. The key to a successful method of operation is to measure and to work with people and give them guidance throughout their career. This goes for all levels of management and all divisions in a company. It is important to know at any given point where one is in relation to any particular objective, and how far the individual and the company are from that objective. It is only by establishing the right metrics in the first place, and then measuring, monitoring, and learning from the gathered data that one can ensure execution of a tactical plan.

Long-Term Success

Long-term success can only come when one has a good balance in life. A balancing of positive and negative energies will lead to good judgment and will always result in the correct decision. There are three vices that I find most often increase the negative qualities moving one away from success.

I have often found in my own life and lives of others that the number one thing that gets in one's way is the ego. Therefore, the number one thing to avoid at all times is the ego. The ego masks every warning sign and clouds every judgment and brings about ultimate destruction. The ego will not allow one to make the right decisions either in good times or in crisis.

Hype is another thing that I find people get wrapped up in and this is the second most important thing to avoid. You should not believe what others say about you; they are only being polite or want something from you—assess yourself with your own intellect and not by what others say about you. In a high growth environment it is very easy to get caught in one's own hype and lose touch with reality.

The third most important thing to keep in control is wishful thinking. Hoping to win a lottery or waiting for the best to just happen is not a good tactical plan. There is no room for wishful thinking in business. There is no substitute for perseverance.

For long-term success, one has to place the right checks and balances in the organization. At the end of the day it's about managing and guiding people, and creating a healthy culture. One must have attainable goals and create a culture of leadership where everyone is in sync with the goals of the organization. Quality must become second nature to everyone, whether that is marketing deliverables, sales deliverables, or engineering products. Quality products are the number one thing as far as clients and people are concerned and in the long run, once you have broken through the traction phase of the business, quality is the most important consideration in the customer's mind. In order to build a quality product one must have able people that think and want to contribute long term. People who are looking for short-term gains must be identified and must be replaced as soon as possible. The culture of the company must be built upon strong

contributing personalities who want to make a difference and leave their legacy behind.

My motto is that one has to earn things in life. One should not deviate from one's goal because one personally received a reward or didn't receive a reward. If instantaneous reward is all one is striving for, one will never find peace, and if one doesn't find peace, one can never be successful. A successful person keeps the distractions at a minimum and believes in oneself, one's own intellect and work ethic, and in due time achieves all. Rewards come only after one does not strive for them at every instant and *real* recognition comes to only those who have contributed positively and selflessly.

Therefore, checking the three vices—ego, hype, wishful thinking—are very important to attain long-term success. Once these are in check, the need for instantaneous rewards is automatically diminished and one strives for quality and perfection. Good work from the heart is always recognized and ultimately rewarded.

80/20 Rule

Why is quality so important? Why is working from the heart and giving it one's best all so important? Why is long-term thinking important?

A lot of people forget the 80/20 rule: as an example, 80 percent of revenues will come from 20 percent of customers. People may think this rule doesn't apply to small companies or large companies but only for companies in the middle. It actually works for a very large scale—from the small million dollar revenue company to the multi-billion dollar revenue company. The 20 percent customer base that you do 80 percent of the business with is a very hard customer. It takes a long time to penetrate that customer and to make them an advocate. Therefore, one should focus and continue to deliver solutions to the 20 percent of the largest customers who demand quality/perfection and is a customer for the long term. Also, this very customer does not like your ego, does not believe in your hype, and is the source of your wishful thinking! For the sake of nothing else but to acquire this very customer, give up the three vices!

On the other hand, it is relatively easy to get that other 80 percent of the client base that gives you 20 percent of the revenue. Most companies go for the easy hit first, and that isn't always the best approach.

When you build products you may not really be building them for the big customer but it's hard to scale into the other 20 percent. A long-term successful philosophy is to build solutions that work for the toughest environments. It is very easy from a software perspective if the architecture is done right, to scale that down to your small and mid-sized enterprises, and very hard to go from small enterprises to the large enterprises and scale up. I believe in building solutions to attack the toughest segment of the market because if one can work there then one can work anywhere. That is why one has to have a long-term strategy. If you have a short-term strategy you can't penetrate these customers on a short-term basis. You can penetrate the smaller and medium enterprises on a short-term basis but then you won't have long-term growth because those customers don't buy as much. Again, for those that believe in their long-term vision, it is a mistake in going only for the easy hit first.

Working with the Management Team

No long-term success can be accomplished without teamwork and a culture of success. I personally believe in delegation and in empowerment. The types of people I like to have in my company are those who are not afraid of empowerment but also take the responsibility seriously. For each individual reporting to me I set certain goals and targets and then measure them and see how they did toward those targets on a quarterly basis. I work with them to set goals for their department and leave them to manage their own business. Every two weeks we sit and talk about how each department is doing and how each individual is managing their business. It's therefore very important to find the people that match the culture that you have created. I find this to be one of the most difficult challenges. One is not going to find the ideal people for everything that one wants to do but one has to make the best selection and see if they can grow into your culture. Better yet, if they can bring something to the culture.

Out of necessity, as I built the company from my garage and in the initial three to four years hired one employee at a time, I have the unique

perspective of having done the jobs of most of the people in the organization. I had to be the developer, manager, support department, marketing department, CFO, and CTO, and this experience has provided me a foundation of knowledge that is extremely valuable. There is truly no substitute for someone working from the ground up. People who are successful aren't afraid to get their hands dirty and do things themselves. As the organization grows, one has to rely upon a team of people and hiring the right people becomes a very important aspect to long-term growth. Imparting the culture to the new managers and getting them to have the same sense of ownership, work ethic, and self-respect becomes a constant process of education.

Since not everyone has the same background, drive, or motivation as the CEO, the planning cycle must begin quite early. One not only has to manage the existing deliverables for the current year, but also plan for the future simultaneously. Keeping continuity, plans, and metrics now help in evaluating how things worked in the past year and make improvements for the future. Good management can help figure out the things that are working and the things that are of no value. If the management is truly aligned, then everyone can stick to the next year's tactical plan, measure the success of the plan, and lead to a successful annual result. However, this is not always the case, and management is about making the hard decisions and making the appropriate changes when needed.

Assessing Your Company

When one is focused so much within, it is hard to assess one's own company. But there are others that will help you know exactly how you compare with others. One must now look at industry standards and one's own standards *objectively*. Look at other comparable companies in the market, both in the public and private markets, and get as much data as possible. These facts contain basic metrics which are very important indicators. One is the top line and the other is the bottom line, and the revenue is an important indicator of this top line growth. These two metrics, along with quarterly and annual comparables, capture a lot of essential operational and growth information. But one should also compare various other metrics such as customer retention rate, new customer acquisition rate, penetration in Fortune 500, Fortune 1000, Fortune 2000, number of households (consumer products), etc. Comparing these metrics against other

companies can bring to light areas where one needs to focus on and can also show where the plan is optimally tuned. At the end of the day, it is all about execution and refinement after the strategy and tactical plan are laid down.

Once the company has traction, is generating revenue, and has a profitable and cash flow positive business, then one can focus on real business growth. At this time, it becomes important to compare growth percentages with other cash flow positive and profitable businesses. As a general rule, achieving anything above 20 percent growth on the top line will be quite good for a mid-sized business, whereas for a younger company in new markets, a growth of 30 percent or above will be seen as quite respectable. From a cash perspective, in my opinion it is a good rule of thumb to have at least nine months to one year's worth of cash in the business. If something should happen in the market whereby there is a slow down, you want to know you have enough cash to sustain yourself through those turbulent times.

The fundamental goal of business is to generate cash to be able to continue the innovation while building the infrastructure necessary to sustain future growth. To achieve this goal, the first financial metric is the top line growth. The other related metric is the bottom-line profitability. Ensuring the business is profitable and the cash flow positive allows the company to independently operate without outside intervention.

Another important financial metric is repeat customer business. The rate of acquisition of new customers is also a key measurement to consider. After the first three to four years of business where all metrics are non-relevant due to lack of any history, new customer acquisition of 20 to 30 percent higher than the previous year is a very respectable metric to strive for. The client base must grow at a rate higher than the growth that one sets to achieve from a revenue perspective because it takes some time for new customers and their spending to come to a level where it affects top line growth.

Growth in new markets is also a very important metric to strive for. One must hedge one's bets and have multiple market segments on which one depends. Any one segment that is affected by some global macro economic characteristics will have a direct affect on one's business and therefore the business must diversify itself for long-term success.

It is very important to at least assess the company once a year and to retune the tactical plan ensuring success year after year.

CEO: The Role

My biggest challenge in this industry is to continuously know the pulse of the industry itself. It's important to know where things are going and to strategically be able to prepare in anticipation of what is coming. To build anything from a software perspective and to do it well requires at least a two to three year cycle. Everyone has to be committed because a lot of money and time is invested in anything we undertake.

Risk management is important, so I always have different options for plans. Experience has taught me to have at least three options. None of the plans are independent of each other though, and the resources and investments which one has put into place will not be wasted because they can be slightly adjusted. It is important to orchestrate, oversee, and monitor these plans in order to minimize the risk of execution.

In a high growth environment, the CEO must be willing to constantly evolve and learn and look to other companies that are successful and borrow from them. Often, there is no need to reinvent the wheel and one has to be humble in this regard. The CEO is a constantly evolving character and this is the most challenging part of the job. For example, when the company is small the CEO needs to wear multiple hats. Over time, the CEO must become savvy in all regards: financial, investor relations, marketing, business development, sales, and technical. At the end of the day the buck stops with the CEO.

Finally, the CEO needs to keep the ego, hype, and wishful thinking in check, because others around the CEO will pick up on these habits. These are sometimes the hardest things in terms of human nature to control. If one can control them, not only will one be successful as a CEO but in one's own personal life.

Dr. Parag Pruthi is the founder of NIKSUN INC. Dr. Pruthi brings more than twenty-one years of expertise in network security, surveillance, data warehousing/mining, and systems performance evaluation. Based upon his doctoral research on the use of chaos theory to model high variability phenomenon in networking, Dr. Pruthi, along with notable colleagues in the industry, developed unique methods of analyzing network traffic enabling a scalable and integrated approach to network security and performance.

At NIKSUN, Dr. Pruthi drives the vision and strategic thinking for the company. His goals are to create a unified and holistic solution for end-to-end network security while guaranteeing end-to-end service delivery requirements. The novel approach to solving this complex and long-standing open challenge has been a revolutionary approach integrating successfully seemingly disparate scientific disciplines such as chaos theory, data warehousing, data mining, parallel processing, and hierarchical distributed computing. It is his belief that only by using such advanced and novel techniques will one be able to develop capabilities for advanced control of network systems and services ensuring the highest levels of security without sacrificing end-to-end performance objectives.

Over the past several years, Dr. Pruthi has led NIKSUN from a garage start-up to a profitable enterprise. With customers ranging all over the globe from financial institutions to governments, the broad ranging applicability of NIKSUN's technology has not even reached a fraction of the addressable market. Dr. Pruthi's goal is to continue to use sound business fundamentals to lead NIKSUN to address the broader markets by constantly innovating a well-defined set of security and performance solutions.

Prior to founding NIKSUN, Dr. Pruthi was at Bellcore, Telcordia, and other research institutions. In his prior career, he was instrumental in developing leading-edge tools for large-scale collection and analysis of data from production carrier and enterprise networks. His expertise stems from solving important problems in security, telephony, broadband, and wireless network management.

Dr. Pruthi holds a bachelor's in electrical engineering and a master's in computer science from Stevens Institute of Technology, and a Doctorate in telecommunications from The Royal Institute of Technology, Stockholm, Sweden. His thesis was titled "An Application of Chaotic Maps to Packet Traffic Modeling" which was the first thesis in applying chaotic and fractal or self-similar systems to accurately model the seemingly erratic nature of network traffic.

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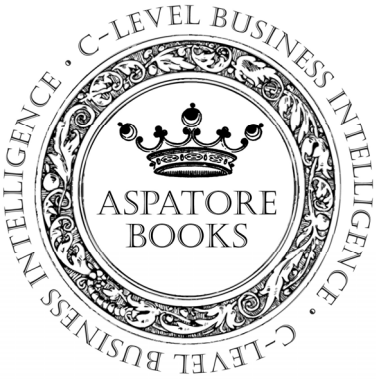
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ABOUT DR. PARAG PRUTHI, FOUNDER, CHAIRMAN AND CEO

Dr. Pruthi is the Founder and CEO of NIKSUN which he has grown from a startup to a highly successful global company in the cyber security, wireless and network monitoring markets. Recognized as one of the foremost experts in advanced cyber security technologies, Dr. Pruthi advises on cyber defense strategies at the highest tiers of governments and enterprises around the world. He is a frequent speaker on cyber security issues, including keynotes to delegates from across 28 NATO nations, agencies and strategic commands at the NATO Information Assurance Symposium.

Dr. Pruthi holds a Bachelor's degree in Electrical Engineering, a Master's in Computer Science from Stevens Institute of Technology, and received his Doctorate in Telecommunications from The Royal Institute of Technology, Stockholm, Sweden. His thesis, "An Application of Chaotic Maps to Packet Traffic Modeling," was the first to apply chaotic and fractal systems to accurately model the seemingly erratic nature of network traffic. Dr. Pruthi continues to drive the advancement of cyber security and network monitoring applications and practices to new levels, by regularly introducing highly innovative and state-of-the-art products that address the continuously evolving landscape of network performance and security. He currently serves as a member of the New Jersey Technology Council Advisory Board.

ABOUT NIKSUN, INC.

NIKSUN is the recognized worldwide leader in making the Unknown Known. The company develops a highly scalable array of real-time and forensics-based cyber security and network performance management solutions for government & intelligence agencies, service providers, financial services companies, and large enterprises such as retailers and manufacturers. NIKSUN's award-winning appliances deliver unprecedented flexibility and packet capture power. The company's patented real-time analysis and recording technology is the industry's most comprehensive solution for secure and reliable network infrastructure and services. NIKSUN, headquartered in Princeton, New Jersey, has sales offices and distributors throughout the US, Europe, the Mid East, and Asia-Pacific.

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