The Seven Habits of Highly Effective Engineering Firms

by

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2000 was a year of great uncertainty for the insurance industry in general, and for professional liability insurers, like Terra, in particular. We were most concerned about two evolving claim trends:

- an increase in the number of severe claims as a function of total claims reported, combined with
- an escalation in the absolute dollar value of severe claims, rising at a rate that exceeded the rate of inflation over the same period.

What was causing these trends? Terra decided to answer that question by conducting an in-depth study to identify the key attributes of its claims, including -- among many others -- causal factors, the role of geography, and the types of projects and clients involved. We completed the analysis in 2001 and shared our findings with our insureds, believing that meaningful claim data could help them better manage their businesses. Our findings, while not unexpected, were conclusive. For example, we were able to confirm that work in the residential arena was troubling at best and was terribly unprofitable for Terra no matter what risk management and loss prevention safeguards our policyholders employed to avoid claims. At the other end of the spectrum, our study showed that environmental services were profitable for both the insurer and the insureds, and much more so than we had originally anticipated.

The process of analyzing claims and disseminating findings to policyholders is hardly unique to Terra. Any number of PLI insurers conduct similar failure analyses and issue guidance to their insureds. The guidance is something like a map that, instead of showing you how to get from here to there, tells you about the road hazards in various locations.

2004 was going to be a milestone year for Terra; our 35th anniversary, making us the only carrier to offer professional liability insurance (PLI) to geoprofessionals for so long, and also making us the North American A/E industry's second-oldest PLI carrier.

For its first 19 years, Terra reinsured PLI policies as an offshore company headquartered in Bermuda. Then, in the mid-1980s, Congress passed legislation permitting the establishment of U.S.-based risk retention groups; i.e., companies owned by their insureds, issuing policies for like-kind risks. Terra was quick to pursue the opportunity and, in 1988, we re-established the company as Terra Insurance Company, A Risk Retention Group (a.k.a., Terra RRG). Since then, Terra has become a finely tuned, high-level service organization that has insured close to 10 billion dollars of professional service revenue generated by our insureds. As we stared our 35th anniversary in the face, the Company was successful by any yardstick, and quite profitable. (Terra still is quite profitable. In fact, on June 30, 2005, Terra's stock value surpassed $200 per share. As such, policyholders that had the foresight to invest $100,000 in Terra in 1988 today have an asset worth more than $2,000,000.) Profit is wonderful because it helps us minimize the cost of insurance; i.e., insureds' real cost of insurance is the premium they pay less the value of their stock's appreciation, making Terra one of the lowest-cost PLI providers in the market. (If you don't buy into the "net-cost-of-PLI" concept, you nonetheless have to admit that Terra has been a superb investment, generating a return of roughly 20% per year since 1988.) Profitability also gives Terra the financial strength to achieve stability in an industry where close to 90% of the active "players" five years ago no longer are involved in our line of business or no longer exist. A.M. Best Company, the nation's leading rating organization of insurance companies, regards Terra's stability so highly, it has given the Company a stated rating of "A, Excellent," and an implied rating of "A++, Superior."

Contemplating our 35th anniversary got us to thinking about what we could do that would be different; something that would be of value to our owner/insureds. After all, it was their performance that contributed so significantly to Terra's success. Our policyholder base produces fewer than than 4/10 of a claim per insured per year. In fact, more than nine of every ten Terra policyholders had not experienced a serious claim. Clearly, our data showed that, when it came to risk management and loss prevention, the vast majority of our owner/insureds were doing a lot of things right. And then it hit us: While a map that helped Terra policyholders avoid road hazards would be valuable, how much more valuable would it be to have a map that showed them how to get from ""here" to "there"; how to achieve real success; how to arrive.

We quickly moved to Phase 2 of our study, by identifying those Terra owner/insureds – a majority of all our owner/insureds – that had never experienced a serious claim while with Terra. We asked them to provide extensive underwriting data, then submit to interviews, most of which we conducted face-to-face, in owner/insureds' own offices. The results have been astounding, leading us to identify what we call "critical success factors," or CSFs; i.e., "Those business practices, actions, ideas, concepts, and theories embedded within a firm's management structure and culture that are essential to that firm's success in controlling claims and other loss costs."

The Seven CSFs

Terra's research identified seven principal, interrelated CSFs common among Terra owner/insured firms that have maintained the lowest loss ratios over an extended period. The seven are, in no particular order:

1. a refined corporate culture;
2. a competent staff;

3. a nonautocratic work environment;
4. financial fortitude;
5. a culture that places importance on client and project selection and assigns accountability for those selections;
6. rapid response to problem situations; and
7. participation in business-focused, outside organizations.

A refined corporate culture: This CSF requires a firm to document its corporate culture; i.e., its corporate philosophy; what it genuinely believes in. Corporate culture is not developed overnight nor can it be static. It should evolve in response to changes in the environment in which the organization functions, thus becoming deeper and more meaningful, using lessons of the past to develop effective responses to new challenges. A firm's culture should first be identified and discussed during development of the strategic plan, resulting in a culture statement (accompanying the plan's mission and vision statements) that sets forth the firm's philosophy. The culture statement should respond to questions such as, "What are we?" "What is our business philosophy?" "What are we trying to achieve?" For some firms, the culture statement could be as simple as, "Our firm strives to provide the highest quality service." For others, the culture statement could be comprehensive enough to embrace all CSFs and more. But, in all cases, it needs to be in writing, it needs to be disseminated to all employees, it needs to be discussed, it needs to be understood, and it needs to be applied – and, ideally, believed in – by all. To a very real extent, a firm's culture statement should be a standard by which all the firm's activities are evaluated, permitting any member of the firm to ask, "Does what I am about to do comport with our firm's culture?"

A competent staff: A firm is nothing more than a collection of people. While having competent people on staff will not guarantee a firm's success, not having such people on staff can almost assure a firm's failure. Having competent people starts with establishing a comprehensive job description for each, so you know what you are looking for. But realize that what you are looking for is not really indicated by a person's résumé. Most high-quality firms spend a great deal of time on the interview process, verifying that a prospective employee has the competence required to handle assigned tasks and to interrelate with the people – coworkers, client representatives, et al. – who are essential to getting "the job" done well. Top-quality firms verify an applicant's claims about education, professional degrees, responsibilities at prior positions, and so on. They also ask questions to learn more about what makes applicants tick: Why did they choose to become an engineer, geologist, biologist, etc.? Were they part of a fraternity, sorority, or club while in college? Did they participate in any organized sports? What do they do in their spare time? What are some of the skills they'd like to improve on? What do they do for continuing education? Do they volunteer their services outside of work for a higher social good? Quality-focused firms also recognize that the competent people they hire – the engineers, geologists, and other professionals; the laboratory personnel and field representatives; the business development and management staff; and literally everyone else – will not stay competent unless the firms invest in proficiency education and training, so people can perform better.

A nonautocratic work environment: The most successful firms make a nonautocratic work environment a vital element of their corporate culture. They do this by creating a workplace that attempts to eliminate blame and fear, and by encouraging a free flow of ideas and communication among all personnel – clerical staff, field personnel, project professionals and project managers – even when the opinions expressed are contrary to senior management's. Firms that do this understand that there can be a "fear factor" to communication and, where it exists, problems are not acknowledged or discussed until it is too late. They encourage staff to discuss problems, issues or concerns as they occur by fostering regular interaction and communication between the "people in the trenches" and the people in the office, holding frequent "brown bag" sessions and staff meetings for this purpose, all with an eye toward enhancing the quality of the firm's services and deliverables. (It's worthwhile to note that firms that encourage open communication among personnel also encourage open communication with client representatives and representatives of other design team members. They also encourage their employees to make periodic checks to see that recommendations are being followed, with findings reported back to the client, design team, and senior management.) Employees not only know when a firm has created a successful nonautocratic work environment, they feel it every day on the job.

Financial fortitude: A firm cannot be successful unless it is financially successful. Firms achieve financial success through financial fortitude; i.e., financial wherewithal coupled with a financially mature attitude. In fact, of all the CSFs, this may be the most important, because it can have such an impact on the others. As a general rule, firms characterized by financial fortitude have the financial maturity needed to abide by their convictions, even when doing so can have a negative near-term impact on the bottom line, and the financial resources needed to weather short-term setbacks. They realize that success is measured in terms of years, not weeks, as epitomized by a group of time-honored expressions like “There’s no such thing as a free lunch,” “Something that’s too good to be true usually is,” and “Those who want something in the worst way often get it just that way.” Stated another way, firms with financial fortitude are able to focus on the long-term impact of their decisions. For example, knowing that liability can linger for decades, they research clients and projects thoroughly before accepting either. They do not work for clients that do not appreciate the need for quality or cannot afford it. They do not agree to contracts whose scope is insufficient in light of the project’s risk, or whose terms and conditions do not deal fairly or thoroughly with project risks, or which establish rates that do not generate an adequate return. In short, these firms turn down engagements whose long-term risks outweigh their short-term benefits. They also realize that they are a collection of people and, to be successful over “the long haul,” they need to invest in their people. For that reason, these firms tend to spend more on staff education and training and, to reduce the cost and disruption of turnover, they are more selective about the people they hire and pay higher salaries than their competitors. They also realize that our economy is cyclical; that good times cannot last forever; that “what goes up must come down,” and, by preparing for the inevitable, they are able to weather the troughs.

Financial fortitude can also be helpful as a problem-solving tool. For instance, if you realize that your firm created or contributed to a problem that developed on site, and that you may be able to take care of the problem by performing additional services, you would immediately proceed to provide the additional services without worrying about short-term issues, like how and when you'll be paid. While achieving financial fortitude can be a lot easier when your firm is well-heeled, any number of well-heeled firms do not achieve it because they are not financially mature. Firms that are not financially mature will find it that much more difficult to achieve financial success and, if they do, to maintain it.

A culture that places importance on client and project selection and assigns accountability for those selections: Financial fortitude is particularly important because it comprises the backbone of this CSF, which, stated another way, means turning away business. The importance of doing this, when warranted, cannot be overemphasized. Just look at case histories of actual losses and you immediately see project after project that the principals never would have accepted if only they could do it over again. But any number of new projects involve old situations, providing you've done the homework needed to learn the lessons of history and avoid mistakes of the past. Of course, the prospect of making quick money has always nurtured undue optimism, which is why it's not enough to track sales successes. We have seen situations where individuals climb the corporate ladder because the gross revenues they generate are not offset by the value of the frequent and troublesome claims experienced on projects for which they were responsible. What good are rainmakers if they are not held accountable for the problems that arise on the projects they bring in, or for the nonbillable time spent dealing with those problems? And what good are their projects when the margin they generate is eroded or eliminated by costly claims? Successful firms reward quality in addition to quantity. They hold people accountable and link compensation, bonuses, and advancement to the firms' long-term profits (factoring in the cost of claims and so on), not just an individual's achieving or surpassing an annual production target. These firms do not tolerate inadequate preacceptance evaluations that result in a disproportionate number of "slow-pay" accounts or claims because of clients or projects they should not have accepted to begin with. Successful firms realize that repeat business is the best business, because repeat clients are known entities and often are represented by individuals with whom firm representatives have excellent relationships.

Rapid response to problems: Time and time again, people who “bury their head in the sand” after learning about a problem on a particular project cause a molehill to grow into a mountain. Smart firms do not let this happen. In fact, they often sponsor special training on how to spot the early symptoms of a problem (e.g., cessation of communication, slow pay, or a fee dispute) and, once they realize a problem exists, they take swift action. Some have even established a protocol on how to assemble a rapid-response, problem-solving team led by one or more senior managers who, typically, had no role in the project in question and are empowered to make technical and financial decisions on the firm’s behalf. (Sometimes ego or pride of ownership gets in the way of critical thinking and/or problem solving. If you believe you’ve done something wrong, discuss it with your peers in the firm. If there is a problem, the only way to keep it as small as possible is rapid response and redirecting manpower as needed. Solve the problem first; worry about other project issues later.)

Participation in business-focused, outside organizations: Some of our most successful insureds have involved key personnel in outside organizations that address business management, including loss prevention and risk management. In fact, Terra believes so strongly in this CSF that we encourage our policyholders to become active members of ASFE/The Best People on Earth. Not that we have to twist their arms. In our experience, the ASFE programs themselves are extremely valuable, especially organizational Peer Review. (All Terra owner/insureds must participate in ASFE's Peer Review program on a regular basis.) We also encourage our owner/insureds to attend at least one of ASFE's two national meetings each year, but not just because of program content. In fact, one of the most beneficial aspects of the meetings is the social interaction outside the sessions. Mingling with other professionals facing the same challenges, swapping stories, and asking questions are all elements of the important socialization function provided by these meetings. Often, I receive calls from clients saying that, while one meeting session or another was truly great, “I got a chance to talk with Joe about the leadership transition in their firm. We're dealing with similar issues in our firm." The point here is that you can only get so much in the dealings within your own firm, so interaction with other, similar professionals on a fairly regular basis can only improve or augment solutions to the risk management puzzle. Insofar as meetings are concerned, we recommend that insureds rotate those who attend, and that those who attend conduct a briefing in the firm to "download" what they learned.

Conclusion

So, what has Terra concluded from its research? Firms will succeed in many ways when they make the seven CSFs vital elements of their corporate culture and their operating structure. The CSFs must be known, understood, and appreciated by *all* employees; professional, technical, and support. Firms will reap the benefit of fewer, less serious claims; a lower rate of employee turnover; a higher rate of profitability; and other positive outcomes that typify a well-run firm. In short, the seven CSFs are good habits to get into. Terra encourages all firms to adopt them.