A Century and Beyond

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ABSTRACT

How can a successful organization be built from the ground up? Why do some organizations last while others fail? Recent work in human psychology and business management is beginning to reveal that the long-term survival of an organization is dependent on the organization's vision and how its employees accept that vision. This paper will show the important role that vision, motivation, and internal culture play in the lasting survival of an organization. Research by psychologists Frederick Herzberg and Edward Deci in the 1960s, as well as the books "Built to Last" by Jim Collins, and "Drive" by Daniel Pink, will be discussed to show that self-motivation is a crucial factor in the future of human achievements. The intrinsic need to explore and to better oneself can motivate people far better and longer than financial compensation alone, and, if nurtured, this intrinsic drive can produce an unstoppable workforce. An organization that is going to last beyond a century is going to require heartfelt dedication at every level. Regardless of the mission, an organization must share commitment to its cause with its employees if it is to last well into the future. At its core, manned exploration is about the human desire to discover the unknown. This drive, coupled with a desire to better oneself and one's community, has the potential to change the world as we know it for the better.

INTRODUCTION

An organization that is going to last over the span of a century or more is going to require more than just employee incentives and empty mission-statements. It is going to require heart, a commitment to its own cause and an intrinsic purpose. There must be a reason for existing beyond the need to produce a product and generate revenue. This paper will outline intrinsic and extrinsic motivations as described in *Drive* (Pink, 2009). It will describe how to generate a heart-felt global vision and mission statement, how to motivate, and how to support morale while building a company with a lasting legacy.

VISION

Importance of a Vision

According to *Built to Last* (Collins, 1997) a successful company must have a vision and a set of core values that bind it together. In his multi-year study of eighteen "visionary" companies and their direct competitors, Collins found that there was no common link between the individual visions or ideologies of each company as one may expect. He instead found that organizations that last and are well-respected by their peers have a purpose; a broad sweeping ideology that

transcends what they do and the desire to generate profit for the sake of profit.

Any kind of multi-centennial organization must support this ideal if it is to survive and flourish. One should see profit as a means to pursue the organization's goals, not as an end in itself. While profit is essential to the survival of any business, if that is all there is to an organization, there is no soul and thus no desire to push the boundaries and better itself and its community. Each worker must see the big picture and how they fit into it. In an ideal organization, workers believe in the product they are producing and want to be there to better the company's purpose. A worker who can see the big picture and their place in it is more valuable than someone who cannot.

Take Merick for example. Their founder, George Merick, clearly stated, "It's not for the profits. The profits follow" (Collins, 1997, p. 26). These are words that continue to guide the company to this day. Merick's primary vision is simple and to the point: "We are in the business of preserving and improving human life" (Collins, 1997, p.33). That is their vision, and it has guided each of their decisions, both profitable and nonprofitable, since its formation. Within the company, the vision must be pervasive. It must be considered in every decision, at every level, by every employee.

Building a Lasting Vision

To create the lasting, pervasive vision of a successful company, one must first take a step back and look at what the mission, the broad reaching ideology, of said company is. High-level global questions must be asked, questions like "Why are we here? Where are we going? Why are we doing it?"

Gentry Lee of NASA said it best during a presentation on systems engineering given to the Jet Propulsion Laboratory (JPL). He asked "What is it we do here at JPL?" and depending on who you are to ask, you could get a dozen different answers. All of those are true in some form or fashion, but the point that he was making was that while JPL does all of those things, that is not why JPL exists. The Jet Propulsion Laboratory exists to answer the fundamental questions about the universe that scientists are asking.

Going to space has always been for the whole of humanity. To the leaders, the critics, and the politicians of the world it has been about prestige and power, but to the people doing it, to the engineers, the scientists, the astronauts, and the cosmonauts, it is about exploration, it is about triumph, not for their country, but for the world as a whole, a voyage for humanity, for all the people of our pale blue dot. To the boys and girls making rockets out of cardboard telling their teachers they want to be astronauts when they grow up, it is about exploration and excitement.

The vision, the purpose and the reason for the 100 Year Starship organization to even exist must be more than "To go to space." Even this seemingly broad mission statement is far too narrow. The organization is planning on building rockets, probes, and interstellar spacecraft, but ultimately, the fundamental reason it exists is to make the world a better place for all mankind, to

develop technologies, systems, and ideals that make interstellar travel possible, and maybe the Earth a friendlier place to call home. Before the engineers and scientists can even consider a long-term manned mission to Mars and beyond, dozens of very familiar problems must be solved, such as clean power generation, water treatment, and food production. In creating a self-sufficient vessel that is capable of voyaging to the stars, problems on Earth will be solved.

Preaching the Vision

Jim Collins opens his book *Built to Last* (1997) stating the difference between what he calls "Time Tellers" from "Clock Builders."

> Imagine if you met a remarkable person who could look at the sun or the stars at any time of day or night and state the exact time and date: "It's April 23, 1401, 2:36 A.M, and 12 seconds." This person would be an amazing time teller, and we'd probably revere that person for the ability to tell time. But wouldn't that person be even more amazing if, instead of telling the time, he or she built a clock that could tell the time forever, even after he or she was dead and gone? (Collins, 1997, p. 18).

Companies that depend on a charismatic leader blaze ahead while he or she is at the helm, but once the influential leadership is gone, some of these companies tend to flounder or worse. The public eye loves to see high-profile leaders like Steve Jobs and Donald Trump, but there is always uncertainty when these larger-than-life personalities step down. This is not to say that charismatic leaders are a detriment to a company. Walt Disney was as charismatic as they come, but during his stint as the manager of the fledgling Disney Corp, he built a culture that will last the test of time.

The first objective of any new business, especially the 100 Year Starship, should be to build a mechanism that does not require a charismatic leader to function and to build a company that is going to purposefully outlast generation upon generation of its leaders, a company that will continue to function without the need for a leader in the spotlight.

Like the Constitution of the United States, the company must be capable of growing and changing as it needs while holding on to the most fundamental ideals that initially formed it. It must be capable of evolving beyond its founder's capacity to imagine what it will be facing in 2112. The founding fathers of the United States had no idea what issues would face their fledgling country today, two hundred years after they formed it. They chose rather to imbue it with the capacity to change, to grow beyond their initial creation, to change with the times. So too must this new organization be able to grow. Each successive leader of the company should come from within the existing culture and have grown up knowing the vision and global ideals of the company. They must spend time reciting, explaining, defending, and supporting the vision.

MOTIVATION

Carrots and Sticks

Civilization is a unique proposition. Getting so many different people to do the "right" thing at the "right" time, for the "right" reasons is often a daunting task. Despite the challenges, humanity has developed a vast reaching and complex system that is capable of producing food for billions of people, sending men to the Moon, and probes into deep space.

Initially, humans were motivated by their basic instincts; the need to eat, mate, and survive. As the industrial revolution took hold, people discovered they could use rewards and punishments as a method of motivation to keep people on task and in line. These rewards and punishments are what Daniel Pink defines as Motivation 2.0 in the book *Drive* (2009). This system has worked very well for hundreds of years and has allowed the creation of the modern civilization around today. Rewards and punishments are still used widely today. Bonuses, stock options, raises, reprimands, terminations, and performance reviews are just a few examples of a world still driven by the age-old carrot and stick motivation.

Decades of experimentation and study by Edward Deci and his colleagues have begun to reveal that the age-old, carrot and stick motivation technique may not work as well as originally intended. Indeed, it may actually be harmful to a work force. In experiments done with factory workers, college students, and even chimpanzees, he revealed that rewards are a great motivational tools, but they have their limits. In the long term, cash rewards crush creativity, and foster short-term thinking. This is not to say that rewards should never be given. Quite the contrary, they can be useful in certain, very limited circumstances. The best use case for rewards is when a task is boring and does not allow one to better oneself. In this case, a manager needs to do three important things... 1) Offer a rationale for why the task is necessary, 2) Acknowledge that the task is boring, and 3) Allow people to complete the task their own way. (Pink, 2009, p.64). These simple steps will keep workers focused and motivated because they will have a purpose and a reason for why it is important, even if it is not fun. The next most important thing is how the reward is given. Do not fall into "if-then" negotiations. Don't offer a reward. If people expect a reward, it becomes necessary to give it.

Intrinsic Motivation

Doing something because it brings a person joy is a powerful force, more powerful than has yet to be fully realized. The power of intrinsic motivation can be seen in an example made by Daniel Pink in his book *Drive* (2009). In the first chapter, he postulates that if one was to ask an economist in 1995 to predict which of two new encyclopedias will be more successful in 2005 either Microsoft Encarta or an encyclopedia generated by millions of people around the world working from their own homes in their spare time, they would without hesitation choose the well-organized and funded Encarta. No economist in the world at the time would have guessed that people on their own computers, writing about topics they cared about for free, could out-compete a profit-driven project like Encarta. Yet out-compete it did. Microsoft shut down Encarta in 2009 after sixteen years of operations and today Wikipedia has more than 19 million articles in 282 languages. (Pink, 2009, p. 15)

Human beings naturally draw pleasure from solving problems and being creative. They thrive when they are in control of their own destiny and are given the opportunity to better themselves and their surroundings. This is the very reason sayings like "Climb the mountain because it's there" even exist. The world is full of self-motivated, excited, and energetic people and all the carrot and stick technique does is try to stuff them into a box and get them to conform to a rigid set of rules and guidelines. To learn, to create, to better the world; This is what each and every human on the planet desires.

One example of harnessing the energy of intrinsic motivation is a concept of "20 percent time". This relatively new phenomenon is being used with great success at large companies like Google and 3M. The idea is simple, managers encourage employees to work 20 percent of their time on a project that excites them. Something that they are interested in that could ultimately better the company and it's products. The key success of partial time is that it motivates the work force to be creative, to work to better themselves because they want to. It sorely disagrees with the old model, and externally the concept of letting workers dilly dally appears highly inefficient. This time however, has led to such market hits as "Gmail", "Google News" (Pink, 2009, p. 162) and "The Post it" (Pink, 2009, p. 95). This is the very reason Wikipedia has competed so well, and ultimately beat our Microsoft Encarta (Pink, 2009). By hiring good, honest people and letting them do a task the way they want to do it, unbelievable results can be achieved. In the words of the former President and Chairman of 3M, William McKnight "Hire good people and leave them alone." (Pink, 2009, pg. 95).

Successfully Motivating a Workforce

Motivating a team, a project, or an organization is no simple thing and there is not a simple step-by-step guide to do so. There are however good things a manager can do that if done correctly, will have a lasting effect on the morale and productivity of any project. Most important is to give people the opportunity to do great things but do not rush them into it, and do not tell them how to do it. People need reason in their lives. They need a purpose, and once those two objectives are achieved, they desire mastery over their craft. Secondly, use rewards sparingly. If a task is obviously dreary with little chance of self-improvement and mastery, then take the time to identify with them and have empathy for what they are about to embark on. Thirdly, get out of the way. Do not micromanage the task. Do not tell them how to do it. This will allow them the freedom to do it how they want and thus allow them to take ownership of the task and complete it with dignity and self-respect.

The three elements of successfully motivating a workforce as laid out in *Drive* are:
- Autonomy
- Mastery
- Purpose

"For 21st century work, we need to upgrade autonomy, mastery, and purpose" (Pink, 2009, p. 203)

BUILDING A SUCCESSFUL CULTURE

The Mission Statement

Having a vision, an unreachable goal is imperative to a new organization. Take Merick's bold mission to "Alleviate pain and suffering." This is by its very nature, unachievable. Just because it cannot be achieved doesn't make it any less worthy. The 100 Year Starship is an organization with many goals, hopes, and dreams. Discovering these and laying them out bare for all to see, weaving them into the fabric of the company is an absolute necessity if they are to be achieved.

Involving the Right People

Workers need to be chosen who understand the part they are playing in the grand scheme of the organization so they can perform their job efficiently. Intrinsically motivated workers are made, not born. Education and work structures however have not been training workers to harness their internal skills. At the beginning of the business, while building the delicate fabric that is the culture, the new employees must have the following qualities in order to lay a solid cultural foundation:

What it takes to be a good system engineer (Gentry Lee, NASA JPL, 2005)
- Intellectual Curiosity
- Big Picture View, Understand the fundamental questions in the broadest sense.
- See and Understand Connections
- Comfortable with Change and Uncertainty
- Proper Paranoia
  - During a critical stage, only do what is necessary.
- Resources and Margin
- Good Communication Skills
- Self-Confidence and Energy
  - Know what you know, and know what you don't.
- Appreciation for Process

Maintaining Healthy Morale

Far too many managers are giving themselves money in the form of bonuses and milestones. There is no place for that in a company that is going to last a century or more. Of course, the workforce needs to eat. They need to take care of themselves and their families. Once these concerns are taken care of, they can get down to the business of creation. Give enough benefits so that they are not an issue. Wages and benefits must be fair, and ought to be slightly above the industrial average in order to attract and maintain the best candidates.

The business should seek to solely hire from within, especially the President or CEO. By bringing in new college graduates, and offering many opportunities for self improvement and advancement, the company can continually cycle workers from the bottom to the top where they

will be able to offer insight and experience at many different levels.

Instill in employees that anything is possible in some form or another. Adopt an "Everything is Do-Able" mentality. Don't blindly shoot down ideas. Always offer a reason and an alternative when turning down an idea. Example "No we can't do that because...but we could..."

Overall, building a successful and self-sustaining culture is imperative, but it is a task that is never done. It is an unachievable goal that must be constantly reviewed and renovated as necessary. It is everyone's job to constantly ensure they are doing the best job they can and are always helping to make the company and its culture a better place.

CONCLUSION

The true meaning of life is to plant trees under whose shade you do not expect to sit. By building an organization for tomorrow and not for today, by focusing on long-term goals and objectives and not being distracted by short-term rewards and punishments, The 100 Year Starship organization can lead the way into the future, and plant seeds that may not bloom until long after the founders have handed over responsibility to the next generation. There is no better time than the present. It will not be easy, but nothing worthwhile is ever easy.

In building this company, the architects are going to be constructing more than just a business. They will be laying the foundation for a way of thinking about the world, a way of seeing the universe and the human condition. They must consider the bigger picture as they structure their future organization and its fledgling culture. If the foundation of this new organization is laid down well from the very beginning, it could become a template for future organizations, even future colonies as humanity starts to press into the bold unknown.

References

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