

The History of Valve and Why They're Creative

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Abstract

This essay focuses on the organizational creative process of the company “Valve”. A history of the video game production company is linearly outlined, using appropriate points throughout their production timeline to exemplify the phenomenon of creativity generation through a Systems Theory approach, the production of creative products through an organizational process, the interaction between restraints and creative achievement, and through their structure as a flat business hierarchy. Many examples from the creativity literature are provided and are supplemented with ample media citations regarding Valve’s history. In depth considerations for the sources of their creative success are disclosed, as well as a brief consideration for Valve’s weaknesses as an organization.

Valve's Beginnings: A System's Approach To Creativity

Valve was founded in 1996 by two former Microsoft employees, Gabe Newell and Mike Harrington (Machinima, 1999). Having been made wealthy from the Microsoft computer boom, Newell and Harrington decided to focus their thoughts on the burgeoning gaming market, which saw a rejuvenation in the 1980's and pushed into mainstream successes through the 1990's. Newell and Harrington reinvested their personal savings into their own gaming studio, which they named Valve Studios. Through a personal business connection, they were able to procure the license to a popular game engine used in the popular video game "Quake" to be repurposed for their first, major game. With a newly hired team of programmers, artists, and designers, Valve set out to complete their first project: a first-person shooter titled "Half-Life" for release on the personal computer (PC). For distribution, they had signed onto a one-game, "prove-it" style contract with an electronic publishing company named "Sierra Entertainment". In just a matter of a calendar year, the project titled "Half-Life" became Newell and Harrington's personal investment apart from their previous programming positions, and towards their promising entertainment gamble.

The stage was set for creativity (defined by scholars as that which is both "useful" and novel") (Amabile 1996, Plucker, 2010): A direct comparison can be made between their ambitions and the attributes of a systems approach to creativity. Newell and Harrington were "dissatisfied with the existing state of affairs and (wanted) to change a domain", in that they saw

a place for their brand of entertainment and set out to stake their claim. They broached “the existing body of knowledge” and developed “sets of skills and abilities” by having obtained the rights to a game engine, having hired a talented team, and then by having used these to create their own video game. With the confluence of the systems which consisted of themselves as leaders, their tools, their team, and their resources, they sufficiently “mastered the rules, symbols, skills, values, and practices of a domain” to make new content, and thus satisfied all requirements for the systems model of creativity (Csikszentmihalyi, 1988). Yet one major problem arose; As they described it themselves: “The game wasn’t any fun.” (Birdwell, 1999)

This point put ample stress on a unique set of circumstances. Sierra Entertainment had already begun promoting the game’s 1997 release date amidst exalted reactions from fans and media. The title’s high-profile trailer proved to not only dispel Sierra’s anxiety regarding their financial gamble, but also worked to realign their priorities by slating Half-Life as their biggest release of the year (Machinima, 1999). Ken Birdwell writes an extensive account of this tumultuous time:

The obvious answer was to work a few more months, gloss over the worst of the problems and ship what we had. For companies who live and die at the whim of their publishers, this is usually the route taken... we had to make a very painful decision — we decided to start over and rework every stage of the game.

...We set up a small group of people to take every silly idea, every cool trick, everything interesting that existed in any kind of working state somewhere in the game and put them into a single prototype level. When the level started to get fun, they added more variations of the fun things. If an idea wasn’t fun, they cut it. (Birdwell, 1999)

Birdwell described this sort of exhumation of fun as the “Cabal process”, in which their game was entirely reworked from the pieces they had created. In putting these new ideas together however, the team also developed something even more important than a fun game: a new creative process. Through a mix of passion and necessity, Valve’s approach, otherwise their own theory of creative design, was tested and developed through manual trial-and-error. Their regrouping and testing birthed three core rules: the amount of input a player has per map must be quantified, the game world must acknowledge a player for having performed an action, and the player must always blame themselves for their failures, as opposed to blaming the game (p.1).

In direct consequence of the results of this difficult reimagining, Half-Life went on to sell over nine million copies physically, an untold amount of sales digitally, and became cited as one of the biggest influencers in the field’s history (Faylor, 2008). But to best understand what happened between coded mess and heralded masterpiece, one need unpack these events under a theoretical lens. First, in a social system perspective of creativity, the general rules and common practices are described as being transmitted from a domain to an individual, which in this case, is described as Newell and Harrington’s interest in video games and eventual investment into game creating. Following, the individual then takes these general rules and common practices and makes something of novelty and use to be entered back into the domain. If this product is creative, the domain will then accept the product by way of field experts who act as their respective field’s gatekeepers. This did not first occur with the success of Half-Life, but actually first occurred when Valve created their trailer; Their accomplishment in the form of a trailer was what was deemed highly novel and useful by their field’s gatekeepers, which consisted of players, media, and publisher.

It is important to note that systems interact amongst other systems (Rathunde, K., 2011). It was through the team's own system of creativity (which itself is a system made up of individuals, who themselves are also a system) that the change was made. By having used their newly refined set of skills and abilities, as well as their internalized key standards of quality, values, and beliefs (as dictated for true novelty making in a systems approach) (Csikszentmihalyi, p. 228, 2003), the team acted as the gatekeepers to their reputation by rejecting its own product, used their newly developed sets of rules and practices to produce a novel variation of their old game, and then accepted their novel product by again acting as the gatekeepers for what defined Valve. In this spiraling way, Valve redefined their standard of novelty and success, while also covertly (albeit with a year's delay in release) set a new standard for success in the field of computer gaming. Moving forward from this first project, Valve utilized a wholly different creative process from their beginnings, which would contribute heavily to its future decisions.

Combinations, Business Processes, and Restraints: Why Mods Are Creative and Why Valve Delays Games

As is often true in the entertainment industry, success is an ingress for an encore. With Half-Life, Valve achieved a hit title that not only bought them instant credibility in their field, but also gained them a considerable amount of working capital. Valve had the full attention of the gaming world, and this was a world, similar to many entertainment fields, that demanded consistent business parity; The success of a title like Quake was immediately met with a string of numerical sequels, "Doom" was promptly followed by "Doom II", and other first person shooters such as "Duke Nukem" and "Serious Sam" were no strangers to quick turnarounds for

sequels. Yet this was not to be the action Valve took under the spotlight. While they had kept personnel working towards a presumed sequel to their first success, they financially bided their time by sanctioning and eventually publishing modifications (or “mods” for short) right through the heart of several fiscal quarters.

Logistically this meant that the company avoided the logical choice for an immediate catharsis and financial gain of a sequel, and instead decided to sell entirely new experiences using reskinned and repurposed coding of their Half-Life game proper. In fact, hindsight reveals this repurposing created “new-out-of-old” in ways a direct sequel alone likely would not have done; In 1999 they purchased the rights to the popular user created mod “Counter-Strike”, which to date has remained one of the most active, online games with over 25 million copies sold throughout the series’ lifespan (Makuch, 2011). Valve also made incremental sequels to Half-Life in the form of “expansions”, which retold the original story through the eyes of alternate characters. Also of notice, a popular mod which would eventually prove its immense value was given the name “Team Fortress Classic” and released in 1999, which was a shooting game that pitted two teams comprised of characters of various strengths and weaknesses against one another. Along with these and other additive titles, Valve was nursing brand new intellectual properties (IP’s) into strong brands by virtue of investing smartly in low risk, low profile content redesigned into new and often exciting experiences. This is a classic example of using the creative process of combining disparate, original ideas to form a creative product, here achieved through an organizational framework.

In continuing examination of Valve’s creativity, two specific points of study are especially relevant during this point in their history: Business Process and Creative Restraints.

The Former is evidenced in their business decisions, taken in explicit consideration with their historical context. In 1998, American Congress passed the Digital Millennium Copyright Act (DMCA), which allowed for much stricter control of digital entertainment by the copyright holder (Kain, 2012). The computer entertainment space was especially prone to massive consumer takeover through file-sharing programs such as “Napster” and others, while videogame corporations such as “Nintendo” and “Sony” drove to great lengths to keep their games as regulated as possible, Nintendo being especially stringent by long maintaining cartridge-based distribution before eventually introducing propriety based DVD-ROMS in 2001 (Hara, 1999). In contrast, Valve’s corporate investment in, and acceptance of user manipulated code could be perceived as largely unorthodox behavior in the marketplace, and often was criticized as such.

Yet this remains a patent case-study of successful divergent thinking in business strategy, as the financial and creative results of game engine sharing at the corporate level were completely untested at this time. As it were, Valve not only found significant customer admiration, but on a functional level, were able to much more easily farm for talent by sometimes hiring the freelancers and fans who produced the best mods, as well as potentially purchase their works at a discounted rate in their infancy (McLean-Foreman, J., 2001). Explained another way, they cunningly used their distancing between expected corporate behavior to build good will and engagement amongst their user base, while simultaneously using their corporate power to pay for their own code that was repurposed in ways to play capture the flag, multiplayer matches, puzzle solving, or anything else their audience personally vetted as something proven interesting. In an interview regarding the company’s still active practice of selling user generated content as a major form of business, employee Robin Walker writes, “The

interesting thing is that it didn't start from us having some grand vision of the future around user-generated content," Walker explained. "It started with customers doing something interesting and other customers clearly saying, 'I like that, and I want it.' And us going: 'How do we scale that? How do we get to the point where everyone can do that?'" (Peterson, 2013). Different in isolation from recombination to make creative products, this divergent creative process from a business perspective deserves its own mention, especially in tandem with the economic and moral panic from the field at the time.

After their business practice, a second point of interest in defining Valve's organizational creative process at this point in their history lies in the interaction between creativity and restraints. More defined, this means how restraints are used to induce creativity, as well as how they may hinder it. Valve saw no major game releases outside of refined, popular mods of Half-Life between 1998 and 2004. Relative to expectation in the gaming world, this was perceived as an extraordinary amount of time, to the point of the presumption of the cancellation of any potential sequel (Machinima, 2009). Bringing back into focus the creative literature, there are two relatable ideas regarding restraints on creativity that are both heavily researched, but often at odds. The logic in *providing* restraints to improve creative results is as follows: stripping away accessibility to more obvious solutions lessens the chance that less original solutions seep through (Reitman, 1965). Applying restraints also often restructures the problem, which in turn creates an entirely separate problem altogether, and thus increases search and processing techniques (Stokes, 2007). These restraint techniques do not seem to strengthen creative behaviors carte blanche as much as they address human problem solving being passive by default; Common problem solving techniques used by problem solvers are often through mental

models and solutions that are already existing, as opposed to being divergent in nature (Nutt, 1984).

In contrast, the idea of restraints seems inherently dissociative with creative thought, and is often perceived as such by way of suggesting lack of available resources, or that the problem itself is not necessarily meant to produce divergent solutions (Oldham & Cummings, 1996). Moreover, by increasing the amount of restraint, the level of complexity becomes inexorably lowered, which would leave less room for potential original thought. When looking at both their growth and their priorities as a company, Valve may have been doing themselves a disservice by imposing no time restraints and allotting a limitless timeframe for their biggest project, or they may have been absorbing creative capital by taking advantage of their plentiful time resource as they wanted, with admitted consideration for social expectancy being soured in the process. The solution to more deeply explaining how their affluence and timelines impacted their creative product, in relation to market expectancy, may in fact fall to two distinct variables: *resources available* and *organizational structure*. These are dissected in turn.

Firstly, resources are vital to creativity, as “creativity functions best in a resource-rich environment.” (Marion, p. 473, 2012), and is especially true of capital for businesses (Katila & Shane, 2005). Resources include things such as team members, software, desks, knowledge, and, monetary capital. Yet does money alone account for creative outcomes? Research on films between 1997 and 2001 found no such correlation between production costs and best picture awards, as well as a negative correlation between production costs and critical acclaim (Simonton, D. K., 2005). Perhaps then, money may not directly correlate with shaping a product, but perhaps in *sustaining* a creative project or its process? In 2002, Valve released a digital

distribution service called “Steam”, which at the time served mostly as a means to distribute Valve games. After some very public growing pains, it was announced that by 2004, all Valve games would necessitate the Steam client to function. In 2005, Valve signed its first of many distribution agreements to sell digital copies of third-party company games (Dunn, 2013). At last count, by 2013, Steam represented 50 percent of PC game sales, 70 percent of *all* full game downloads, served 65 million active players, and has helped value Valve at an estimated \$2.5 billion mark present day (Peterson, 2013). To put a final stressor on how remarkable this is, Valve began and remains a private, non-traded company to this day.

“There were a bunch of people internally who thought Steam was a really bad idea...In retrospect, it was a great idea, right?” recounted Newell in a Washington Post interview (Peterson, 2014). By no means was Valve ever a basic startup company, with its two original founding members already millionaires at the time of their founding (Dunn, 2013). The success in Half-Life afforded them even further social and monetary freedoms to create, and their successful steering of the Steam platform cemented away any such obligation towards anything other than their collective whims. In corralling these thoughts back to restraints, how exactly does Valve function to meet such creative highs under such unregulated and potentially unprecedented free agency if, in fact, necessity remains the mother of all creativity? Alternatively, was their incredibly unique status as game makers with untold resources and no public shareholders the true reason for their successes over the years? Researcher Scott Sonenshein offers a cogent explanation to how different levels of resource restraint may impact the creative process.

Sonenshein followed a single retail company over time in his single-site case study, from a small family owned business, into a franchised, public chain of retail stores collectively valued at around \$1 billion (Sonenshein, 2014). While observing their growth, he put a strong point of emphasis on the difference between an object, “a tangible and intangible asset that employees must act on”, and a resource, “an object that has been acted on to make it useful” (Feldman, 2004; Feldman & Worline, 2012). As Sonenshein explained, “In revising how scholars theorize resources in the context of creativity, I move the conversation in the literature away from simply examining the relationship between resource *quantity* [emphasis added] and creativity; rather, I advance research around how actions shape and generate the very resources that both constitute and facilitate creative activities.” (p.815) Using a grounded theory approach (Glaser & Strauss, 1967), he took data taken from 55 informants and 56 interviews, observations, and open coding to produce a Process Model of Creative Resourcing (Sonenshein, p. 836, 2014).

This model splits the level of resourcing into two general forms: “Autonomous Resourcing” and “Directed Resourcing”. In the former, resources are thin but employees maintain autonomy. Resources are identified and guided by some type of management to the employee. The new identity of the resource becomes a *creative* resource, which is then molded by the employee into a solved problem. That solved problem then takes on the original new identity, which is again open to becoming a creative resource, again leading to a creative solution. This is cyclical and occurred only as a result of employee agency, as opposed to employee managerial control, who’s only observed role was to identify general themes to the employee. He retold that in his observations of the stores, even he was treated as an available, workable resource, when, “(He) was repurposed from a scholar to an employee, suggesting that

employees (in resource restricted environments) treat resources (i.e., a scholarly observer) as malleable”. (p. 817) In the case of this retail outlet, individual store managers and employees further gained this agency by the suggestion that they themselves “owned” their stores, which even without any change in compensation, ultimately seemed to motivate each store towards solving their own problems in novel and useful ways, even absent knowledge, staff, or money. (p.837).

In analyzing an organizations change from frugal to affluence, the new type of management eventually established was defined as Directed Resourcing. This form of resourcing still offered a similar cyclical nature described above, but with simple guidance extending to “Permission and guidance”, and managerial control overseeing the *regulation* of objects (as opposed to identity). In this way, employees still creatively resourced their objects (i.e. design stands, mannequins, and store layout) into creative expressions, albeit with more provided identity, and these new creative expressions themselves (i.e. belts strewn all over the store) turned into the new regulated, suggested guidelines that then were open to being creatively resourced into new creative expressions, and so on. Sonenshein discussed a provisioned “Sex and the City” trend alert, in which separate employees in separate stores took from their allotted resources and created altogether different means for selling them from the ways they arranged their items (p.838).

An important consideration for what makes a resource open to be interacted with, and by consequence better to be provisioned, is whether it is fixed or dynamic in nature. Sonenshein described the difference as vital, in that fixed objects have qualities less readily able to be put to use, such as a direct plan that mandates uniform store cohesion, in this case. Dynamic objects, on

the other hand, offer far more creative potentials amongst employees with creative agency, such as a broad guideline, a movable deadline, or an aforementioned trend alert. All of this to suggest that constraints through resources are not necessarily so much an issue of quantity, such as how many millions of dollars or how much time is available, but more the focus on the managerial impetus that allows for employees to use different types of resources in potentially malleable ways, whether lacking or abundant. Valve's teams throughout their history were rarely, if ever, in the autonomous resource stage due to their resources, but they more importantly were given the ability to meaningfully form and own their project through diversified hires, the freedom to make mistakes, and great creative agency - as well as an imposing, if very long, deadline (Keighley, 2004).

This is not to say that the simple exercise of reframing a creative process in different ways alone may not potentially produce creativity within an organization; Valve sound engineer and composer Mike Morasky conveyed as much when discussing how he composed a still iconic bit of theme music after he was given a two day deadline (Morasky, 2014). In a contrasting extreme, there is evidence to suggest imposition of too many different types of constraints, such as an overly bureaucratic structure, may act to inhibit creative problem solving (Dess & Pickens, 2000; Weisberg, 2011). Rather, this is simply a theoretical explanation for how attitudes towards resource scenarios, such as time constraints, can be understood in an organizational context, and how they can contribute to, or detract from the creative process. Experimental research conducted on this balance supports this view (Medeiros, et al., 2014).

All this considered, Valve delivered on their promises with the release of "Half-Life 2" in 2004. The title faced major setbacks, including a year delay after a celebrated 2013

announcement, and a still unprecedented crime after a single individual hacked into Valve's servers and released, among several things, an in process portion of the game online for free (Keighley, 2004; Parkin, 2014). Yet despite these footnotes, Half-Life 2 is now considered one of the greatest achievements in not just video games, but in modern media, with 39 game of the year awards and over 12 million copies sold to date (Chiang, 2011). Their creative vision also proved to be a bit of a Trojan horse in the form of a compelling first person narrative, as the developed "Source Engine" used to power their new game went on to also power hundreds of mods, two episodic updates, and several massive hit titles from Valve, including the enormously popular "Portal" series, as well as the enduring hit "Team Fortress 2". Valve again were accepted by the gatekeepers of the domain, and simultaneously challenged the standards for what a successful product could accomplish. And just the same as the precedent set between previous titles, the main Half-Life franchise has remained dormant ever since the release of Half-Life 2.

Creative people and Organizational Creativity: Flat Hierarchy's Role in Valve's Creativity

Having examined Valve as an organization from a systems perspective of creativity, explored their divergent thinking processes, and compared their creative process against the creativity restraint research in lieu of their infamous timelines, the question of how their organizational structure contributes to their creativity is an important dimension to include.

In April of 2012, Valve released a pdf of their official employee handbook on the heels of its online posting through uncertain means (Valve, 2012). This employee handbook, besides artistically elegant and consistently flippant, discussed at length the many facets of Valve's apparent flat hierarchal structure, which included such idiosyncrasies as a passive view on

employee vacation time, physically mobile work stations, and a wage based on meritocracy.

Most notably, the handbook outlined in detail the lack of a managerial presence at Valve. Newell elaborated in an interview, “(Keeping talent) led to decisions about not having titles, not having organization structures, and things like that because as useful as they are in the short-term, in the long-term they really end up hurting you a lot.” (Peterson, A., 2014) He went on to explain that team members will create projects based on company goals matched against their own desires, and then will court other Valve employees to join in on their team in order to see the project through. In this way, a project is either proven to not work or is completed, and then team members are essentially free agents to refocus once again, as opposed to being a permanently tied to one title. “(In the past) you’ve had (employees) feel like they have an organization and title tied up to something, when the key is to just continue to follow where the customers are leading.”

In organizational theory, there are many ways for which to frame a group of two or more people, depending on what that group’s goal may be. On its most basic level, organizations run laterally as well as horizontally, and their function takes on the form it most resembles.

Predominately top-down organizations are best used for easy to replicate results through managerial effort, while predominately flat organizations tend to produce things using techniques such as matrix structures, task forces, or otherwise formal to informal coordination between cohorts. In terms of businesses, most are hybrids of the two directions, with many commonly featuring more aspects of a top-down structure. (Bolman, Deal, 2003). Given that Valve’s own website boasts that they have been “Boss free since 1996”, there are a myriad of ways that their structure may have contributed to their organizational creative process and output. The variable

that Valve themselves claims is the most important to their success is their hiring process (Valve, 2014).

“We definitely view recruiting as the single most important thing that we do at Valve. We don’t really have a recruiting staff.” (M. Ambinder, personal communication, December 2nd, 2014) stated Valve statistician and resident experimental psychologist Mike Ambinder in a personal interview. Their hiring process is described in which people organically decide they need a particular resource, leading Valve employees to collectively seek out that prospective person through group consensus. “Anybody who is working at the company can participate in recruiting. We tend to kind of encourage that, because the more people that are involved, the smarter our decision making will be... The tagline that we use is that Valve is “We are always hiring...”, and that’s true. If there’s somebody out there that we think will make us a more valuable company, we want them working at Valve. We have no quotas, we have no official positions, it’s just, is this person of high enough caliber to work here and contribute and make us a more valuable company?” So what does one of these “creative” people look like?

The research suggests people who are high on the personality traits of “Openness to Experience” and “Extraversion”, while lower on the personality trait of “Conscientiousness” tend to produce more creative results by measure of meta-analysis of Big Five personality tests and creativity assessments (Feist, 1998; Christensen, et al., 2014). In a multi-level study, analysis of 176 employees working in 34 research and development teams of a multinational company in 4 different countries found that individuals who felt they were creative (had high creative self-efficacy) produced more individual creativity on teams when both “knowledge of who knows what” (KWKW) and functional background diversity were high. In other words, when a

team had access to free-flowing knowledge and consisted of people with diverse skillsets, what the team produced was more creative when the individuals felt individually confident about their creativity, versus when individuals did not feel confident about their creativity. (Richter, et al., 2012).

Studies such as these work as further hints in how to best run an organization, depending of course on the ultimate goal. In a review of research regarding employee innovativeness in organizations, researchers suggested innovation is caused not purely of individuals or objective organizational characteristics, but as a result of their interaction between one another (Parzefall, et al., 2008). A connection could be drawn between the points provided by these studies and the manner Ambinder characterizes certain characteristics of his workplace. “We tend to believe that if you hire smart, talented, and creative people and get out of their way, they will end up producing make smart, talented, and creative work...The notion of a flat hierarchy is not based upon some utopian ideal, its more just because we feel it’s the best way to create the most valuable products for our customers.” Specifically regarding their organizational structure, “Information is passed on organically, and we’re definitely inefficient in that regard. That’s one downside of having the flat hierarchy, and we freely admit that.” In a speech regarding the role of data in their company, Ambinder describes all decision making as purely collectivist in nature, as well as statistically driven by the access given to every Valve employee to their massive collection of data. (Ambinder, A., 2014) “The way we like to make decisions is to say, ‘Hey, what data do we have to support a particular conclusion or an analysis?’ ...(If I want to try something, it’s really easy to iterate and run the experiment and go and gather the data.” (M. Ambinder, personal communication, December 2nd, 2014)

As a case-study of a highly profitable, private, artistically inclined game making and digital distribution machine, it is impossible to know for certain what fully detracts and improves Valve's organizational outcomes. To be sure, there are potential vulnerabilities to conditions dissociative with creativity that are worth consideration. Beyond the basic tradeoff of flat business structures lacking the charted, potential gains of uniform leadership (Mumford., Barrett, 2011), Valve may also theoretically suffer from the follies of groupthink, considering their strong collectivist attitude (Janis, 1972). Their projects are also founded on the ability of an individual or small group to persuade team members, potentially putting at a disadvantage even motivated and talented individuals who are less skilled at persuasion or debate (Hansen, M., p.155, 2009), although the abundant presence of empirical data may help in controlling this issue. And though extremely transparent, the demographic information of Valve's workforce is unknown to the public, and thus the lack of divergent benefit from women and minorities in a science, technology, engineering and math (STEM) organization that strongly desires creativity may potentially be at risk when considering the low level of cultural diversities in the STEM workforce (Syed & Chemers, 2011). A final consideration is that Valve's perception of what constitutes a product, by virtue of how they spend their resources, does not often constitute the perception of what their consumers perceive is a product. This makes intensive time and resources invested in hardware or engine coding unlikely to satiate past and potential consumers in the more immediate way that a game title might. Stronger communication with the consumer not necessarily of just the creative process, but of what the company views as a creative product may help to alleviate such concerns.

Finally, Valve currently sits in an interesting position of holding extreme monetary value, having few to economically answer to, and having strong IP's at their disposal. History dictates that their next major release will not emerge until a satisfactory formula of artistic vision, technological advancement, and business proposition all coincide. They have announced (and delayed) projects that include virtual headsets and home console alternatives, but have announced very little information in terms of market launches (Fahey, 2014). Even still, their brand remains as strong and as marketable as at any point in their history. So with the past, present, and future all in mind, the only safe, all-encompassing statement to make regarding the company's organizational creativity is that it is very often proven effective, it is predictable in its process, unpredictable in its outcome, and highly anticipated on all accounts.

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