Shaping Organizational Culture

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Abstract: The culture of an organization can potentially be a valuable asset or—for some organizations—a barrier to progress. Leadership Teams (LTs) sometimes attempt to *shape* their organizational culture to improve the performance of the organization. How can organizational culture be *shaped*? This research report discusses different perspectives on organizational culture, presents examples of organizational culture dimensions, describes how organizational culture can be measured and the performance visually displayed, and explains how an LT can start to *shape* its organizational culture through a portfolio of projects. Additionally, the current novel coronavirus (COVID-19) crisis provides a unique vantage point from which to view organizational culture. Some LTs have found it difficult to preserve their organizational culture because many employees are working from home and the number of face-to-face interactions has significantly decreased. Some other LTs now believe it is necessary to radically change their organizational culture to save the organization. Several organizational culture dimensions appear to be especially important during this pandemic such as *safety*, *empathy*, *resiliency*, *adaptability*, and *creativity*. These five organizational culture dimensions will be featured in an illustrative example.

*Keywords*: *Shaping Organizational Culture*, *Visualizing Culture Performance*, *Project Portfolio*

Note: The anthropomorphic convention of ascribing human qualities to organizations will be used in this research report. For example, a phrase such as "Company X wants to radically change its culture." means "The senior executives of Company X want to radically change their culture."

I. Organizational Culture

"So when I was named Microsoft's third CEO in February 2014, I told employees that renewing our company's culture would be my highest priority. I told them I was committed to ruthlessly removing barriers to innovation so we could get back to what we all joined the company to do—make a difference in the world."   - Satya Nadella, CEO of Microsoft (Nadella, 2017)

The culture of an organization can potentially be a valuable asset or—for some organizations—a barrier to progress. Leadership Teams (LTs) sometimes attempt to *shape* their organizational culture to improve the performance of the organization. *Shaping* in some cases might mean only a minor culture change whereas in other cases it might mean a radical culture transformation. How can organizational culture be *shaped*? This research report addresses that question. The performance of an organization can be conceptualized using organizational performance categories. Some common organizational performance categories are depicted in Figure 1. An *organizational performance category* is different than an *organizational performance metric*. For example, *Health & Safety* is an organizational performance *category* (in Figure 1) whereas *Lost Time Injury Frequency Rate* (LTIFR) is a *metric* within that category. The *Health & Safety* category is now receiving more attention due to the pandemic. The *Diversity, Equity,* and *Inclusion* category is also now receiving more attention due to recent events related to social injustices.
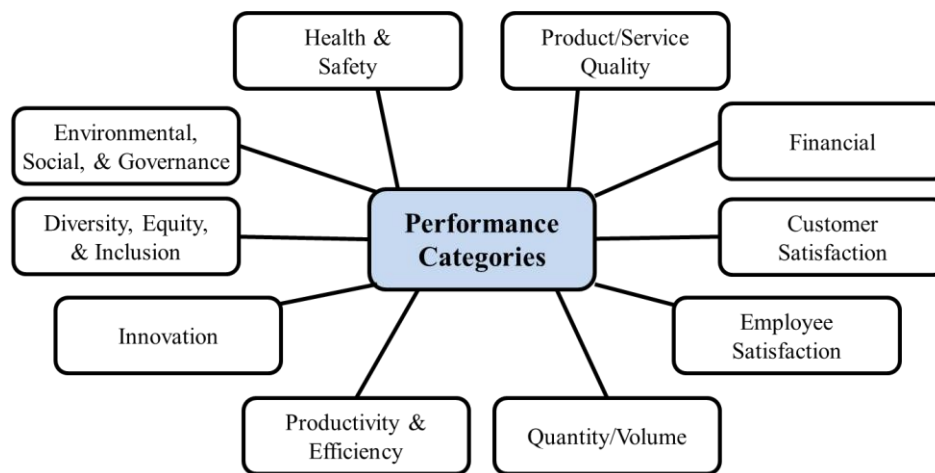
Figure 1. Organizational Performance Categories.

A Leadership Team (LT) can determine the organizational aspiration levels on targeted organizational performance metrics. Organizational culture can affect organizational performance. Itami (1987) identified *corporate culture* as an invisible asset: "The culture of the firm is an invisible structure that is powerful enough to shape the norms and rules employees follow. Their actions in turn determine the firm's performance." Barney and Clark (2007) identified and described three conditions that must be met for a firm's culture to provide a sustained competitive advantage: *value*, *rarity*, and *imitability*. Johnson *et al.* (2017) described the links between *culture* and *strategy* and argued that ". . . culture should be seen as *part* of the strategy, something that can be a source of competitive advantage and, to some degree, something that can be adjusted."

One perspective is that certain *dimensions* of organizational culture affect organizational performance. Hofstede and Hofstede (2005) described a *culture dimension*: "A *dimension* is an aspect of a culture that can be measured relative to other cultures." An organizational performance metric—like the *Lost Time Injury Frequency Rate* (LTIFR)—can be viewed as a response variable ("Y Variable") that is a function of one or more independent variables ("X Variables") such as "*Culture*"—written below in the form "Y = f ($\underline{X}$)":

$$\text{LTIFR} \ = \ f\,(X_1, X_2, \ldots, X_{\text{Culture}}, \ldots, X_K)$$

where K = The number of independent variables.

The equation states that the *Lost Time Injury Frequency Rate* is *affected by* several independent variables including organizational culture. The components of "*Culture*" affecting LTIFR could be leadership commitment to health and safety, leadership presence, communication of safety values, safety policies, safety procedures, quality of safety training, and the quality of supervision.

Much has been written about organizational culture and how to distinguish one culture from another. Deal and Kennedy (1982) identified five elements of company culture: *business environment*, *values*, *heroes*, *the rites and rituals*, and *the culture network*. On describing *values*, the authors stated: "These [*values*] are the basic concepts and beliefs of an organization; as such, they form the heart of the corporate culture." Hofstede and Hofstede (2005) offered a definition of culture: "It [culture] is *the collective programming of the mind that distinguishes the members of one group or category of people from others*." They identified four items—which they describe as "manifestations of culture at different levels of depth"—that can be used to distinguish national (country) cultures: *values*, *rituals*, *heroes*, and *symbols*. They stated: "The core of culture . . . is formed by *values*. *Values* are broad tendencies to prefer certain states of affairs to others. Values are feelings with an arrow to it: a plus and a minus side." This research report will focus on *values* as one important aspect of organizational culture. A **value** is defined here as *a word, phrase, or statement that reflects deeply-held beliefs intended to guide behavior*. Many organizations have a *set of values* (e.g., *Respect*, *Integrity*, and *Accountability* at Microsoft).

Schein (2017) offered a definition of *organizational culture* that emphasized its *shared nature* amongst a group of people: "The culture of a group can be defined as the accumulated shared learning of that group as it solves its problems of external adaptation and internal integration; which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, feel, and behave in relation to those problems." Schein (2017) went on to describe three levels of *culture analysis*: Artifacts—Visible and Feelable Phenomena, Espoused Beliefs and Values, and Taken-for-Granted Underlying Basic Assumptions. This view suggests that certain aspects of a culture are *invisible* and to *know them* might require an intensive ethnographic study (see, e.g., Schwartzman, 1992) instead of a brief tour of an organization.

For any particular organization, it can be determined whether the values are "*mere words*" espoused by the LT or whether they are deeply held beliefs embedded in all aspects of the organization. There is a vast difference between *merely espousing values* and *deeply embedding* the values into all aspects of the organization. The members of some organizations have strong

convictions for their values and have committed to living and working by them. Weick (1985) identified a risk associated with a *strong culture* and so values must be chosen wisely: "A coherent statement of who we are makes it harder for us to become something else. Strong cultures are tenacious cultures. Because a tenacious culture can be a rigid culture that is slow to detect changes in opportunities and slow to change once opportunities are sensed, strong cultures can be backward, conservative instruments of adaptation." Several culture questions can be asked the members of an organization to determine how deeply embedded the *values* are in the organization:

Have the *values* been operationally defined?	Have the *values* been communicated?
Can you recite the *values* from memory?	Are you passionate about the *values*?
Do the *values* guide your decision making?	Do the *values* influence priority setting?
Do the *values* influence resource allocation?	Are the *values* embedded in your daily work?

You would expect *deeply embedded* values to influence the thoughts, feelings, attitudes, behaviors, decisions, rituals, practices, actions, and relationships of the members of the organization.

The Org Chart can influence an organization's culture because it specifies relationships in the form of "*who reports to whom*" and the various degrees of formal power based on the hierarchy. Each organizational unit in an organization (e.g., business units, divisions, departments, geographic regions, offices, etc.) might have its own unique culture in the form of a *subculture*. A particular subculture might be quite different than the other subcultures. Factions might exist in the organization that are battling for cultural primacy in the form of *culture wars*. Divisiveness and jostling for influence, power, and control might exist. An organizational culture can potentially have a damaging effect on the members of an organization. Deming (1982, 1994) mentioned several management practices that he asserted created an undesirable culture for employees such as the setting of arbitrary numerical goals, the ranking of employees, and management by results.

Culture is often cited—correctly or incorrectly—as a reason why "Company X is great" or "Company Y is in trouble." Jeff Bezos, Chairman and CEO of Amazon, mentioned four principles at Amazon that he believed were *keys to success* (Tabaka, 2019): (1) Customer obsession, (2) Eagerness to invent, (3) Long-term thinking, and (4) Operational excellence. According to Bezos, "We go back to them over and over again . . . and if you look through each thing that we do, you will see them run straight through everything." Hastings and Meyer (2020) described three steps in creating a *culture of freedom and responsibility* based on the experiences at Netflix where Reed Hastings is the Chairman and CEO: (1) First build up talent density, (2) Then increase candor, and (3) Now begin removing controls. Hastings attributed (Hastings & Meyer, 2020) the Netflix culture as an important reason why his company overtook Blockbuster: "It was not obvious at the time, even to me, but we had one thing that Blockbuster did not: a culture that valued people over process, emphasized innovation over efficiency, and had very few controls."

Differences in national (country) cultures are apparent if you research an identifiable group or travel to another country. For example, the Sioux of the *Great Northern Plains* region of the United States have historically placed great value in four virtues according to Hassrick (1964): "That the Sioux should set forth virtues toward which the people should strive—fortitude, generosity,

wisdom, and childbearing—gives a clue concerning what they considered essential to national well-being." Holmes and Gonzalez (2017) related several *Elder pedagogies* of the Lakota (Sioux) in the form of *values* and *disciplines* such as *collective*, *perception*, *consistency*, *honor*, *integrity*, *honesty*, *generosity,* and *humility* to name a few.

> ". . . and he walks alone up to the top of the mountain, holding his pipe in front of him, and carrying his buffalo robe which he will use at night."
>
> - Black Elk (in *The Sacred Pipe* by Brown, 1953)

Black Elk (see Brown, 1953) described the seven rites of the Oglala Sioux which included *crying for a vision* (a.k.a. *lamenting*). Black Elk stated (in Brown, 1953): "Every man can cry for a vision, or 'lament'; and in the old days we all—men and women—'lamented' all the time. What is received through the 'lamenting' is determined in part by the character of the person who does this, for it is only those people who are very qualified who receive the great visions, which are interpreted by our holy man, and which give strength and health to our nation." Black Elk explained that this rite consisted of a sequence of specific ritualistic activities (this author's major paraphrasing of the steps follow): decide to lament, visit a holy man, experience the rite of purification, go to the top of the chosen mountain, lament on the mountaintop, return to the holy man and describe in detail your experiences, the holy man then interprets your experiences and offers instructions, and then you strive to live your life in a holy manner. Most—if not all—of the seven rites described by Black Elk would be foreign to many people today. The culture one person experiences in a lifetime can be quite different than the culture another person experiences.

United States citizens (or German, Australian, Brazilian, etc.) visiting Japan for the first time would immediately notice cultural differences. They could visit Shinto and Buddhist shrines, attend a lecture on Zen, take Shotokan Karate lessons, learn and practice Japanese archery, marvel at sacred swords in a museum, taste a variety of different foods, and appreciate cherry blossoms. Four pictures taken in Japan by this author are shown in Figure 2. It has been known for a long time (see, e.g., Benedict, 1934) that religious beliefs are an important aspect of a group's culture. A person preparing to visit Japan for the first time might consider learning about the Shinto religion. Ono (1962) described its importance in Japan: "In its general aspects Shinto is more than a religious faith. It is an amalgam of attitudes, ideas, and ways of doing things that through two millenniums and more have become an integral part of the *way* of the Japanese people." The Personnel Development Department of the Nippon Steel Corporation (Nippon Steel Corporation, 1988) published a valuable book in 1982 titled, "*Nippon: The Land and Its People*" to in part help its employees describe and explain Japan to others when they were conducting international business. Azar (2016) described some of the many ways in which business is conducted differently in Japan compared to other countries and offered suggestions for how to succeed in Japan.

Exposure to a different culture might result in feelings of disdain for the culture on one end of the spectrum or great admiration for the culture on the other end. There might be certain aspects of the culture that you like and other aspects you dislike. You might even end up incorporating some aspects of the other culture into your life in the form of rituals and daily routines.

Sacred Sword

Food

Shrine

Cherry Blossom Tree

Figure 2. Four Images from Japan.

The COVID-19 pandemic—like other pandemics in history—has threatened the survival of humans and organizations. Some organizations that were unable to rapidly adapt during this pandemic did not survive. New organizational competences and practices must be mastered in the foreseeable future for organizational survival and prosperity: social distancing, screening people entering buildings, virus prevention education, virus testing, contact tracing, and workplace cleaning. A strong organizational culture might be more difficult to sustain during the pandemic because many employees are now working remotely.

A recent review of news articles suggests that organizational cultures strong in the areas of *safety*, *empathy*, *resiliency*, *adaptability*, and *creativity* are better suited for pandemic survival. *Safety* for keeping everyone healthy and safe from COVID-19; *Empathy* for better understanding and relating to people suffering from trauma, stress, and anxiety; *Resiliency* for people's ability to effectively *bounce back* from hardships, failures, and setbacks; *Adaptability* for making necessary organizational changes; and *Creativity* for conceiving new ways of working safely and adding value to customers. We can imagine for *Safety* an example of each of the four culture items (see Hofstede & Hofstede, 2005): Value - "*Employee Health & Safety is our Number One Priority*"; Ritual - Periodic Cleaning of the Workplace; Heroes - Front-Line Workers; and Symbol - Protective Face Mask. These five areas will be featured later in an illustrative example.

II. Four Organizations

Four organizations were selected as insight-stimulating case studies to derive examples of *organizational culture dimensions*: Apple Inc. ("Apple"), Mayo Clinic ("Mayo Clinic"), Microsoft Corporation ("Microsoft"), and the Toyota Motor Corporation ("Toyota"). Recall that Hofstede and Hofstede (2005) stated "A *dimension* is an aspect of a culture that can be measured relative to other cultures." These four organizations were selected because (1) they are well-known, (2) much has been written about them, (3) they reportedly have identifiable organizational cultures, and (4) examples of organizational culture dimensions should be relatively easy to derive through case study analysis. The four organizations (cases) are listed in Figure 3.

Case Study	Headquarters Location	Year Founded	Annual Revenue	Employees (Approximate)
Apple	Cupertino, CA	1976	$260+ Billion	137,000 (as of 9/28/2019)
Mayo Clinic	Rochester, MN	1864*	$13.8+ Billion	70,000 (as of 12/31/2019)
Microsoft	Redmond, WA	1975	$143+ Billion	163,000 (as of 6/30/2020)
Toyota	Toyota City, Japan	1937	$274+ Billion	360,000 (as of 3/31/2020)

* 1864 is the year Dr. William Worrall Mayo reportedly started his medical practice in Rochester, MN.

Figure 3. The Four Organizations.

The four organizations vary on several characteristics such as the number of years since founding, origin story, form of organization, headquarters location, industry, current *founding family* presence, core competences, annual revenue, number of employees, and geographic spread to name a few. Selected information for the four organizations is shown in Figure 4.

Apple — Founded in 1976 / Steve Jobs & Steve Wozniak / HQ in California, USA / Publicly Traded Company / Technology Company / Design Excellence / Strategic Communications

Mayo Clinic — "Founded" in 1864* / Dr. William Worrall Mayo / HQ in Minnesota, USA / Nonprofit Organization / Health Care Organization / Patient-Centered Philosophy / Mayo Clinic Model of Care

Microsoft — Founded in 1975 / Bill Gates & Paul Allen / HQ in Washington, USA / Publicly Traded Company / Technology Company / Operating System / Software, Hardware, & Cloud

Toyota — Founded in 1937 / Kiichiro Toyoda / HQ in Aichi Prefecture, Japan / Publicly Traded Company / Mobility Company / The Toyota Way / Toyota Production System

Figure 4. Selected Information for the Four Organizations.

While the four organizations are quite different, they share a number of common characteristics. Some of the commonalities are shown in Figure 5.

Figure 5. Some Commonalities Across the Four Organizations.

The four organizations will now be briefly described with the aim of deriving examples of organizational culture dimensions.

Organization One: Apple

Apple Computer Company ("Apple") was founded on April 1, 1976 by Steve Jobs, Steve Wozniak, and Ronald Wayne. Apple was incorporated as Apple Computer, Inc. on January 3, 1977. It is a publicly traded technology company listed on the NASDAQ American Stock Exchange with the symbol "AAPL." The current CEO is Tim Cook and the corporate headquarters is located in Cupertino, California. Apple is a multinational company with operations and customers located throughout the world. Annual revenues were $260+ billion and the number of employees was approximately 137,000 as of the fiscal year ending September 28, 2019. A section of the corporate headquarters building is visible in the distance through the trees in Figure 6. This picture symbolizes the intriguing mysteries surrounding some of Apple's business practices.

Apple is a unique technology company in that it offers an ecosystem (platform) consisting of a wide variety of integrated products and services such as personal computers, tablets, smartphones, wearables, music, news, books, and cloud services. Some Apple customers are "*never*" without their Apple products and services because they are fully-integrated into their lives. Apple is well-known for many things including *product design excellence* (i.e., designing "*insanely great*" products), *strategic communications*, and *product/service secrecy*. Much has been written about Apple and Steve Jobs (see, e.g., Isaacson, 2011, 2014; and Kahney, 2009). Kahney (2009) described Steve Job's view of the Apple business model: "This is Job's definition of Apple's business model, which survives today across multiple products and product categories: sell well-

designed, well-made technology products that aren't the cheapest on the market, but command dependable loyalty from customers because the Apple brand is a mark of quality."

Figure 6. A Partial View of Apple Headquarters from a Distance.

Some of the *strategic communications* Apple is well-known for are keynote speeches and product launch events. Wenzel and Koch (2018) analyzed video data from Apple's keynote speeches from 2001 to 2011 and then developed a framework that ". . . conceptualizes how keynote speeches come into being as a staged genre of strategic communication." The framework integrates discursive practices, bodily movements, and conceptions of strategy. Kahney (2013) described the *product/service secrecy* practices at Apple: "Trying to persuade people to talk about the company isn't easy. Apple people don't talk, even about things that happened thirty years ago. The company is so secretive, that divulging anything—anything at all—is a firing offense." Kocienda (2018) described his software development work during his tenure at Apple including *demo meetings*. The author shared a personal experience: "I got up from my chair, returned my iPhone to my pocket, and walked a few steps down a quiet hallway until I stood outside of the conference room called Diplomacy. When the door opened, I would be invited in to give a demo to Steve Jobs."

Apple mentions its six values and provides additional descriptions of them on the official company website (Apple, 2020):

<u>**Apple Values**</u> (from the official company website):

Accessibility: Technology is most powerful when it empowers everyone.
Education: Giving products, support, and opportunities to schools that need them most.
Environment: Truly innovative products leave their mark on the world instead of the planet.
Inclusion & Diversity: Different together.
Privacy: Privacy is a fundamental human right.
Supplier Responsibility: People come first. In everything we do.

Here is the additional detail that is provided on the **Inclusion & Diversity** value from the official company website (Apple, 2020): "Different together. At Apple, we're not all the same. And that's our greatest strength. We draw on the differences in who we are, what we've experienced, and how we think. Because to create products that serve everyone, we believe in including everyone."

Steve Jobs (1955-2011) left an indelible mark on the company he co-founded and his thoughts and views are purportedly still embedded deeply in the Apple culture. In effect, he has had an *enduring influence* on the organization that can still be felt today.

<u>**Organization Two:**</u> **Mayo Clinic**

Dr. William Worrall Mayo reportedly started his humble medical practice in Rochester, Minnesota in 1864 and it has since evolved into the *world-renowned* "Mayo Clinic." His two sons—Dr. William James Mayo ("Dr. Will") and Dr. Charles Horace Mayo ("Dr. Charlie")—joined him in his medical practice in the 1880s and he eventually ceded the practice to them in 1889 (Berry & Seltman, 2008). The three Mayo doctors and their colleagues formed a powerful collaboration with Mother Mary Alfred Moes and the Sisters of Saint Francis. Together they founded St. Marys Hospital in 1889. The Mayo Clinic was established as a nonprofit health care organization in 1919 headquartered in Rochester (Berry & Seltman, 2008). The Mayo Clinic has long been known as a *destination medical center* meaning patients from all over the world travel to the Mayo Clinic in Rochester and to other Mayo Clinic entities for medical care. The Mayo Clinic has two other large medical centers—one in Scottsdale, Arizona and one in Jacksonville, Florida. There is also the Mayo Clinic Health System which is comprised of several regional hospitals and clinics in Minnesota, Wisconsin, and Iowa.

The current President and CEO of the Mayo Clinic is Dr. Gianrico Farrugia who was appointed in 2019. Annual revenue was $13.8+ billion and there were approximately 70,000 employees as of December 31, 2019. The historic Mayo Clinic Plummer Building can be seen through the windows of the more contemporary Mayo Clinic Gonda Building in Figure 7. This picture symbolizes the dual acts of (1) *respecting* Mayo Clinic history while at the same time (2) *innovating* for the future. The Mayo Clinic official website (Mayo Clinic, 2020) describes the

Mayo Clinic as ". . . a nonprofit organization committed to clinical practice, education and research, providing expert, whole-person care to everyone who needs healing." The "Three Shields" model—comprised of Patient Care, Medical Education, and Research—serves many potential roles. It is *in a sense* a philosophy, an approach for operating the Mayo Clinic, and a symbol in the Mayo Clinic logo.

Figure 7. View of the Plummer Building from Inside the Gonda Building.

The Mayo Clinic is well-known for the Mayo Clinic Model of Care. The following words are *carved in stone* at the Mayo Clinic Heritage Hall in Rochester, MN (Mayo Clinic, 2020):

MAYO CLINIC MODEL OF CARE
A PRESCRIPTION FOR EXCELLENCE

Here is a description of the Mayo Clinic Model of Care (Mayo Clinic, 2020):
"The Mayo Clinic Model of Care is a set of principles that have guided our organization since its earliest days. They are the reason patients come to Mayo. Many health care facilities offer high-quality care, but these are the principles that set Mayo Clinic apart. The Mayo Clinic Model of Care is defined by high quality, compassionate medical care delivered in a multispecialty, integrated academic institution. The primary focus, meeting the needs of the patient, is accomplished by embracing the following core elements (attributes) [Patient Care & Environment] as the practice continues to evolve."

The Mayo Clinic has a history of innovation including a number of historic "firsts" such as the first program in graduate medical education in 1915, a Nobel Prize for the discovery of cortisone in 1950, and the first multisite comprehensive cancer center in the U.S. (LaRusso *et al.*, 2015).

Much has been written about the history of the Mayo Clinic (see, e.g., Nelson, 1990; Habermann *et al.*, 2001; Hartzell, 2004; and Berry & Seltman, 2008). Berry and Seltman (2014) identified several characteristics of the Mayo Clinic that have made it unique and successful: The Needs of the Patient Come First, Team-Based Medicine, Finding the Right Teammates, The Power of Intrinsic Motivation, Shared Governance, and The Legacy of Generosity.

The Mayo Clinic publicizes its mission, primary value, and value statements on its official website (Mayo Clinic, 2020).

Mayo Clinic Mission, Primary Value, and Value Statements (Mayo Clinic, 2020):

<u>Mission:</u> To inspire hope and contribute to health and well-being by providing the best care to every patient through integrated clinical practice, education and research.

<u>Primary Value:</u> The needs of the patient come first.

<u>Value Statements:</u> These values, which guide Mayo Clinic's mission to this day, are an expression of the vision and intent of our founders, the original Mayo physicians and the Sisters of Saint Francis.

> **Respect:** Treat everyone in our diverse community, including patients, their families and colleagues, with dignity.
> **Integrity:** Adhere to the highest standards of professionalism, ethics and personal responsibility, worthy of the trust our patients place in us.
> **Compassion:** Provide the best care, treating patients and family members with sensitivity and empathy.
> **Healing:** Inspire hope and nurture the well-being of the whole person, respecting physical, emotional and spiritual needs.
> **Teamwork:** Value the contributions of all, blending the skills of individual staff members in unsurpassed collaboration.
> **Innovation:** Infuse and energize the organization, enhancing the lives of those we serve, through the creative ideas and unique talents of each employee.
> **Excellence:** Deliver the best outcomes and highest quality service through the dedicated effort of every team member.
> **Stewardship:** Sustain and reinvest in our mission and extended communities by wisely managing our human, natural and material resources.

The eight values can be easily remembered using the mnemonic RICH TIES (Whelan & Dacy, 2017). The Mayo Clinic is now playing an important societal role in the battle against COVID-19. It has made significant contributions in this effort in the areas of prevention, testing, and treatment. The Mayo Clinic recently made available an advanced COVID-19 geographic case tracking tool.

Organization Three: Microsoft

Microsoft was founded in 1975 by Bill Gates and Paul Allen in Albuquerque, New Mexico. Microsoft was initially incorporated on June 25, 1981 and is now a publicly traded technology company on the NASDAQ American Stock Exchange with the stock symbol "MSFT." Microsoft is a multinational corporation with global operations and is headquartered in Redmond, Washington. There have been three Chief Executive Officers in its history: Bill Gates, Steve Ballmer, and now Satya Nadella who was appointed CEO in February of 2014. Microsoft had an annual revenue of $143+ billion and approximately 163,000 employees as of June 30, 2020. The company operates as three business segments: Productivity and Business Processes, Intelligent Cloud, and More Personal Computing. Some of its products and services include laptop computers, tablets, operating systems, software, search, applications, gaming devices, and cloud services. A screen shot of the first page of this report in Microsoft Word software is shown in Figure 8.
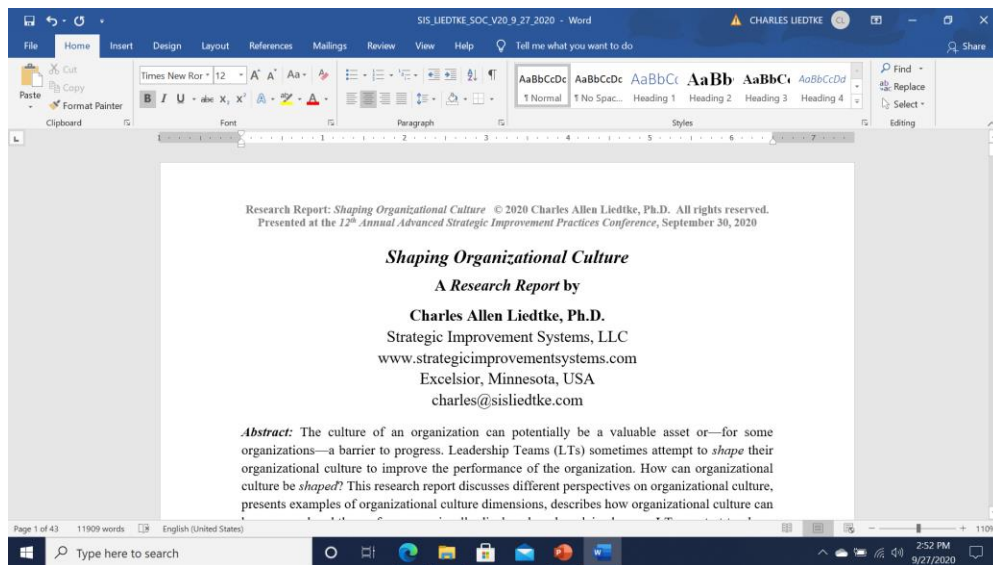
Figure 8. Computer Screen Image of Microsoft Word.

No description of Microsoft would be complete without mentioning Bill Gates, one of the co-founders of the company and its first CEO. He eventually became a legend in the computer industry and global business circles—and the richest person in the world (see, e.g., Manes & Andrews, 1994). Like Steve Jobs at Apple, Bill Gates has had an enduring influence on Microsoft. He only recently resigned from the Microsoft Board of Directors after nearly forty-five years.

The current CEO, Satya Nadella, is attempting to *transform the company* while preserving the historic strengths of Microsoft. Nadella stated: (Nadella, 2017): "So when I was named Microsoft's third CEO in February 2014, I told employees that renewing our company's culture would be my highest priority. I told them I was committed to ruthlessly removing barriers to innovation so we could get back to what we all joined the company to do—make a difference in the world."

Nadella's 2017 book "*Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone*" (Nadella, 2017) describes in detail his personal history, career trajectory, and his approach to transforming Microsoft. According to Nadella: "This is a book about transformation—one that is taking place today inside me and inside of our company, driven by a sense of empathy and a desire to empower others." *Empathy* is one of the values that is important to Nadella: "My personal philosophy and my passion, developed over time and through exposure to many different experiences, is to connect new ideas with a growing sense of empathy for other people. Ideas excite me. Empathy grounds and centers me." Another important value associated with the Microsoft culture transformation is *growth mindset*. Nadella explained its significance: "The culture change I wanted was actually rooted in the Microsoft I originally joined. It was centered on exercising a growth mindset every day in three distinct ways . . . we needed to obsess about our customers . . . we are at our best when we actively seek diversity and inclusion . . . we are one company, one Microsoft—not a confederation of fiefdoms."

The transformation at Microsoft that Nadella is leading involves a culture transformation while still retaining the Microsoft values of *Respect*, *Integrity*, and *Accountability* (Microsoft, 2020): "Culture transformation is a continuous process of learning, renewal, and having the everyday courage to confront our own fixed mindsets, while remaining true to our enduring values of respect, integrity, and accountability." Interestingly, he is *preserving* some aspects of the culture.

Microsoft is moving aggressively on data analytics and artificial intelligence (AI) (Microsoft, 2020): "The variety, velocity, and volume of data is increasing—50 billion connected devices coming online by 2030, more than double the number today—and Azure is the only cloud with limitless data and analytics capabilities across our customers' entire data estate." AI will be especially important along with other technologies such as quantum computing and mixed reality (Microsoft, 2020): "The quintessential characteristic for every application going forward will be AI, and we believe it cannot be the exclusive province of a few companies or countries. That's why we are democratizing AI infrastructure, tools, and services with Azure Cognitive Services, so any developer can embed the ability to see, hear, respond, translate, reason, and more into their applications." Smith and Brown (2019) discussed the critical issues facing technology companies today in the areas of surveillance, privacy, cybersecurity, social media, AI, and facial recognition.

Microsoft publicizes its mission and corporate values on its official website (Microsoft, 2020).

Mission Statement: Our mission is to empower every person and every organization on the planet to achieve more.
Corporate Values: Our values align to our mission to empower every person and organization on the planet to achieve more. They support our culture and serve as a declaration of how we treat each other, our customers and our partners.
Respect: We recognize that the thoughts, feelings, and backgrounds of others are as important as our own.
Integrity: We are honest, ethical, and trustworthy.
Accountability: We accept full responsibility for our decisions, actions, and results.

Microsoft appears to be well-positioned to move into the future with empathy in order to empower others while advancing technologies with a human touch.

Organization Four: Toyota

The Toyota Motor Corporation ("Toyota") was founded by Kiichiro Toyoda on August 28, 1937. The company founder's family name is "Toyoda", but the company is named "Toyota." Toyota is a leading mobility company in the automotive industry that is listed on the New York Stock Exchange with the symbol "TM." The Toyota Head Office building is located in Toyota City, Japan (near Nagoya) which is shown in Figure 9. The current CEO is Akio Toyoda who is a grandson of the company founder Kiichiro Toyoda. Toyota is a multinational company with global operations. Annual revenue was $274+ billion and the number of employees was approximately 360,000 employees as of the end of the fiscal year on March 31, 2020.

Figure 9. Toyota Head Office Building in Japan.

Toyota conducts business in the automotive industry through several vehicle brands including Toyota, Lexus, Daihatsu, and Hino. The company designs and manufactures automobiles, trucks, and buses which are then sold through an extensive global distribution network. Toyota also owns and operates Toyota Financial Services and a number of other diverse businesses. Toyota has earned a strong reputation for producing cars of exceptional quality and it is famous for the Toyota Suggestion System (Yasuda, 1991) among other things. The company is also well-known for its

Toyota Production System—sometimes referred to as *Lean Manufacturing* (see, e.g., Toyoda, 1987; Ohno, 1988; Liker, 2004; Liker & Hoseus, 2008; Liker & Convis, 2012; and Monden, 2012) and a related set of *best practices* like *genchi genbutsu* (*go and see*) and *kaizen* (*continuous improvement*). *Lean* is a well-known approach for identifying and removing various forms of waste (inefficiencies) from all aspects of the company. Liker (2004) identified fourteen principles of *The Toyota Way* and arranged them in four categories: *Long-Term Philosophy*; *The Right Process Will Produce the Right Results*; *Add Value to the Organization by Developing Your People and Partners*; and *Continuously Solving Root Problems Drives Organizational Learning*.

Toyota never seems content. The current CEO Akio Toyoda aims to *transform the company* to become an even more competitive mobility company in the long-term (Toyota, 2020). One aim is to create *waku-doki* which means *excitement and exhilaration that wows customers*. Toyota is executing on a *Connected Strategy* consisting of *Three Arrows*: Connect All Cars, Creation of New Value and Business Revolution, and Creation of New Mobility Services

Toyota collaborated with Microsoft in the establishment of the Toyota Big Data Center (TBDC) in California. Big data will play an important role for Toyota in the future (Annual Report 2018, Toyota, 2020): "Big data collected from cars will enable a wide range of new mobility services, such as accident and breakdown prediction, the generation of dynamic maps using probe data (vehicle tracking information generated using GPS), and agent functions to help users drive safely and comfortably." Toyota ultimately envisions providing more information-based value for customers (Annual Report 2018): "As the Internet of Things (IoT) develops, cars are increasingly connected to information networks, enabling consumers to enjoy a variety of new services. Connected technologies have the potential to create new value and services by creating new models of use and new roles for cars. In particular, big data collected from connected cars will be put to use in a wide range of services and businesses. As such, connected platforms that encompass information infrastructure will become extremely important business platforms for automakers."

Toyota is influenced by *ka-kun*. Sasaki *et al.* (2020) conducted research on *ka-kun* in Japanese family businesses: "In Japan, these values and guidelines are known as *ka-kun*, which can be loosely translated as 'family mottos,' and include principles, rules and instructions left by past leaders (including founders) to their successors." The authors further stated: "Theoretically, *ka-kun* can be viewed as strategic identify statements—strategy documents espousing the mission, values, or philosophy of the organization." Toyota has *ka-kun* in the form of *The Five Main Principles Of Toyoda*. A picture of these is shown in Figure 10 and reproduced here:

The Five Main Principles Of Toyoda
- Always be faithful to your duties, thereby contributing to the Company and to the overall good.
- Always be studious and creative, striving to stay ahead of the times.
- Always be practical and avoid frivolousness.
- Always strive to build a homelike atmosphere at work that is warm and friendly.
- Always have respect for God, and remember to be grateful at all times.
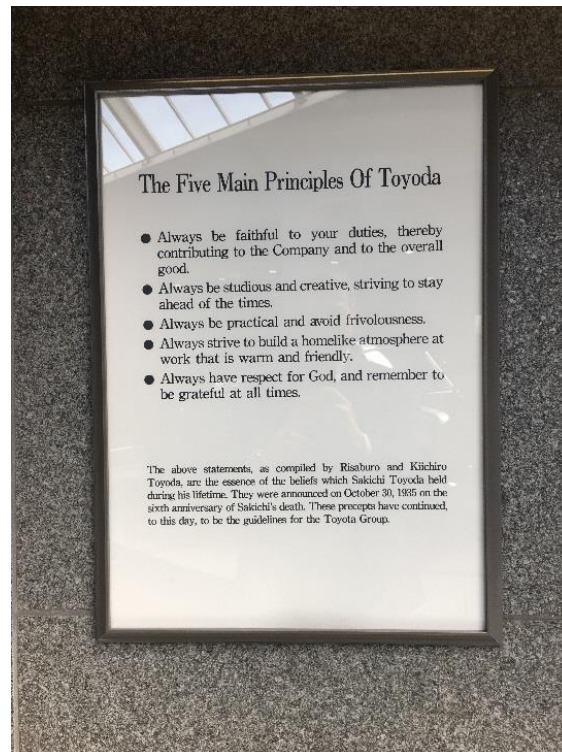
Figure 10. The Five Main Principles Of Toyoda.

The paragraph in Figure 10 states: "The above statements, as compiled by Risaburo and Kiichiro, are the essence of the beliefs Sakichi Toyoda held during his lifetime. They were announced October 30, 1935 on the sixth anniversary of Sakichi's death. These precepts have continued, to this day, to be the guidelines for the Toyota Group." The famous *Toyota Way* has two pillars:

The Two Pillars and Five Key Words of The Toyota Way (Toyota, 2020):
> **Respect for People**
> Respect: We respect others, make every effort to understand each other, take responsibility and do our best to build mutual trust.
> Teamwork: We stimulate personal and professional growth, share the opportunities of development and maximize individual and team performance.
> **Continuous Improvement**
> Challenge: We form a long-term vision, meeting challenges with courage and creativity to realize our dreams.
> Kaizen: We improve our business operations continuously, always driving for innovation and evolution.
> *Genchi Genbutsu*: We practice *genchi genbutsu* . . . go to the source to find the facts to make correct decisions, build consensus and achieve goals at our best speed.

   Toyota also has "*7 Guiding Principles at Toyota*" (Toyota, 2020)—adopted in 1992 and revised in 1997—which influence Toyota's business practices today. Toyota continues to innovate and advance its business practices and technologies while still adhering to the *ka-kun* from days past.

III. Observations

The four organizations each have a distinct organizational culture and set of values. Examples of *values*, *rituals*, *heroes*, and *symbols* from the four organizations are shown in Figure 11.

Organizations	Examples of Values	Examples of Rituals	Examples of Heroes	Examples of Symbols
Apple	Inclusion & Diversity	Product Launches	Steve Jobs Steve Wozniak	Apple
Mayo Clinic	*"The needs of the patient come first."*	Committee Meetings	Dr. W. W. Mayo Mother Alfred Moes	Three Shields
Microsoft	Integrity	Annual Hackathon	Bill Gates Paul Allen	Four Color Palette
Toyota	Respect for People	*Genchi Genbutsu*	Sakichi Toyoda Kiichiro Toyoda	Three Ellipses

Figure 11. Examples of Values, Rituals, Heroes, and Symbols.

The publicly expressed values and/or principles of the four organizations provide a basis for deriving examples of organizational culture dimensions. It is unclear if these have been *operationally defined*. Some examples of these for the four organizations are shown in Figure 12.

Apple	Mayo Clinic
Accessibility Education Environment Inclusion & Diversity Privacy Supplier Responsibility	The needs of the Patient come first. Respect Integrity Compassion Healing Teamwork Innovation Excellence Stewardship
Microsoft Respect (website) Integrity (website) Accountability (website) Empathy (Nadella) Empowerment (Nadella) Customer Obsession (Nadella) Diversity & Inclusion (Nadella) One Microsoft (Nadella) Growth Mindset (Nadella)	**Toyota** Respect for People - Respect - Teamwork Continuous Improvement - Challenge - Kaizen - *Genchi Genbutsu*

Figure 12. Examples of Values and/or Principles (Incomplete Listing).

Several examples of organizational culture dimensions can be inferred from an examination of the value sets of the four organizations. Some of the examples include *Respect*, *Excellence*, *Integrity*, *Empathy*, *Teamwork*, *Stewardship*, *Diversity*, *Inclusion*, *Compassion*, and *Continuous Improvement* to name a few. Three broad themes became apparent: some values are focused on the **individual**; some values are focused on the **relationships** between individuals; and some values are **aspirational** in nature. One is reminded of the famous *Golden Rule—treat others as you would like to be treated*—when looking at the values across the four organizations in their totality.

Seven observations follow based upon an analysis and synthesis of the sets of values of the four organizations (cases):

Publicized Values: Each of the four organizations publicize their values and they are easily accessible (see official websites). They represent "*espoused beliefs and values*" (see Schein, 2017).

Unique Value Sets: The set of values for each organization is unique. This suggests there is *no one set of values* that fits all organizations. A common theme across the four organizations is *respect for people* which Toyota espouses explicitly as one of the two pillars of *The Toyota Way*. Some of the more unique values were *privacy*, *stewardship*, *kaizen*, and *genchi genbutsu*.

Aspirational Values: The four organizations have aspirational values such as *excellence* and *continuous improvement*. One senses idealism when studying the values and the desire to excel and make the world a better place. They appear to be noble, significant, and meaningful. The values certainly do not project a culture of contentment.

Individual & Relational Values: Some of the values relate more to individual or personal human characteristics such as *accountability* and *integrity* whereas others relate more to relationships between people such as *respect* and *teamwork*.

Internal & External Values: Some of the values are more internally (to the organization) focused such as *integrity* and *accountability* whereas others appear to be more externally focused such as *environment* and *supplier responsibility*.

Historically-Influenced Values: Each organization has people in its history who have had an *enduring influence* on the organizational culture. For example, Steve Jobs and Steve Wozniak at Apple; Dr. W. W. Mayo, his two sons (Dr. Will and Dr. Charles), Mother Mary Alfred Moes, and the Sisters of Saint Francis at the Mayo Clinic; Bill Gates and Paul Allen at Microsoft; and Sakichi Toyoda and Kiichiro Toyoda at Toyota. Some of the values are quite old as is the case of *The Five Guiding Principles Of Toyoda* from 1935—which are *ka-kun* (Sasaki *et al.*, 2020). The primary value "*The needs of the patient come first*" at the Mayo Clinic can be traced to Dr. W. W. Mayo.

Preserved Values: Each organization appears to take great pride in its heritage and history and attempts to preserve them. For example, the Mayo Clinic Heritage Hall in Rochester, MN and the Toyota Commemorative Museum of Industry and Technology in Nagoya, Japan. Nadella at Microsoft is transforming the culture of the organization—while still preserving the values.

IV. Visualizing Organizational Culture Performance

The words "*organizational culture*" used in casual conversation convey little meaning unless more contextual information is provided. How can *organizational culture* be made more concrete and measured? Satya Nadella, the CEO of Microsoft, commented (Nadella, 2017): "I said earlier that culture can be a vague, amorphous term. That's why we worked so carefully to define the culture we wanted. And it's why we measure everything. When it comes to humans, data is not perfect, but we can't monitor what we can't measure. So, we routinely survey employees to take their pulse." As was mentioned earlier, Hofstede and Hofstede (2005) stated "A *dimension* is an aspect of a culture that can be measured relative to other cultures." They described five dimensions of national culture: *power distance*, *collectivism versus individualism*, *femininity versus masculinity*, *uncertainty avoidance,* and *long-term versus short-term orientation* (also mentioned in the 2005 book). Meyer (2014) identified eight culture scales (dimensions) for differentiating countries: Communicating, Evaluating, Persuading, Leading, Deciding, Trusting, Disagreeing, and Scheduling. Several examples of *organizational culture dimensions* were derived from the values of the four organizations (*respect*, *excellence*, *diversity*, *teamwork*, etc.). Several culture dimensions have emerged that appear to be important during the current pandemic such as *safety*, *empathy*, *resiliency*, *adaptability*, and *creativity*. These must eventually be *operationally defined*.

One approach to measuring organizational culture dimensions is for the Leadership Team (LT) to select some dimensions using a *priority approach* and then oversee the administration of a *perception* survey of the members of the organization. A *perception* survey has *severe limitations* for "*knowing in-depth*" an organizational culture, but if done well, it will provide insights into the collective "*strength of belief*" perceived by the members of the organization on the culture dimensions of interest. An ethnographic study (see, e.g., Schwartzman, 1992) should be considered if the aim is to "*know the culture in-depth.*" The situation assumed here is that the aim is to decide *what matters most* and then *directionally improve* (*shape*) the culture in those areas. Effective survey strategy, planning, and execution are all vital, but they are outside the scope of this research report. The ideal survey scenario would be to have all the members of the organization—and possibly other stakeholders—respond to the survey in a timely manner with complete and truthful responses. Ironically, the survey response rate will probably be relatively low and the truthfulness of the responses will be suspect if the culture is *toxic*. Some culture dimensions—like *Safety*—will have related metrics like LTIFR to provide additional evidence on whether the culture has changed.

What if *Respect for People* was selected by an LT, then a *perception* survey could be administered that included the following statement and responses:

"The members of my organization tend to have *respect for people*."
- □ Strongly Agree
- □ Agree
- □ Indifferent
- □ Disagree
- □ Strongly Disagree

The responses could be tallied and the number and percentage calculated for each of the five responses. For example, suppose that the percentage responding *Strongly Disagree* was 12.8%; the percentage responding *Disagree* was 15.4%; the percentage responding *Indifferent* was 6.2%; the percentage responding *Agree* was 42.7%; and the percentage responding *Strongly Agree* ("Top Box") was 22.9%. Notice that the percentages sum to 100%. The percentage of "*negative*" responses was 28.2% (= 12.8% + 15.4%) and the percentage of "*positive*" responses was 65.6% (= 42.7% + 22.9%). These provide baseline performance information on *Respect for People*.

Generally, you should avoid using survey items (dimensions or descriptors) that have seemingly similar meanings. For example, you might expect a respondent to make similar choices for "*unsafe* vs. *safe*" and "*careless* vs. *careful*." In this case, respondents who choose "*unsafe*" will probably also tend to choose "*careless*" and those who choose "*safe*" will probably also tend to choose "*careful*." This means the choices of respondents for one item are *associated with* their choices for another item because the constructs are so similar. You would not expect the same phenomenon for the two sets of items "*unsafe* vs. *safe*" and "*nostalgic* vs. *futuristic*." A chi-squared test can be conducted on the survey responses for any two items (dimensions) to determine if they are likely to be *associated* in the minds of the survey respondents.

A dynamic analysis of a culture dimension could be conducted if a perception survey is administered each week and the "*Proportion Responding Safe*" were calculated and plotted—assuming "*Safe*" was operationally defined. A statistical control chart (P Chart) like the one in Figure 13 could be created to track the *perceptions* on the *Safety* dimension over time. The "*Proportion Responding Safe*" appears to be *in statistical control*.
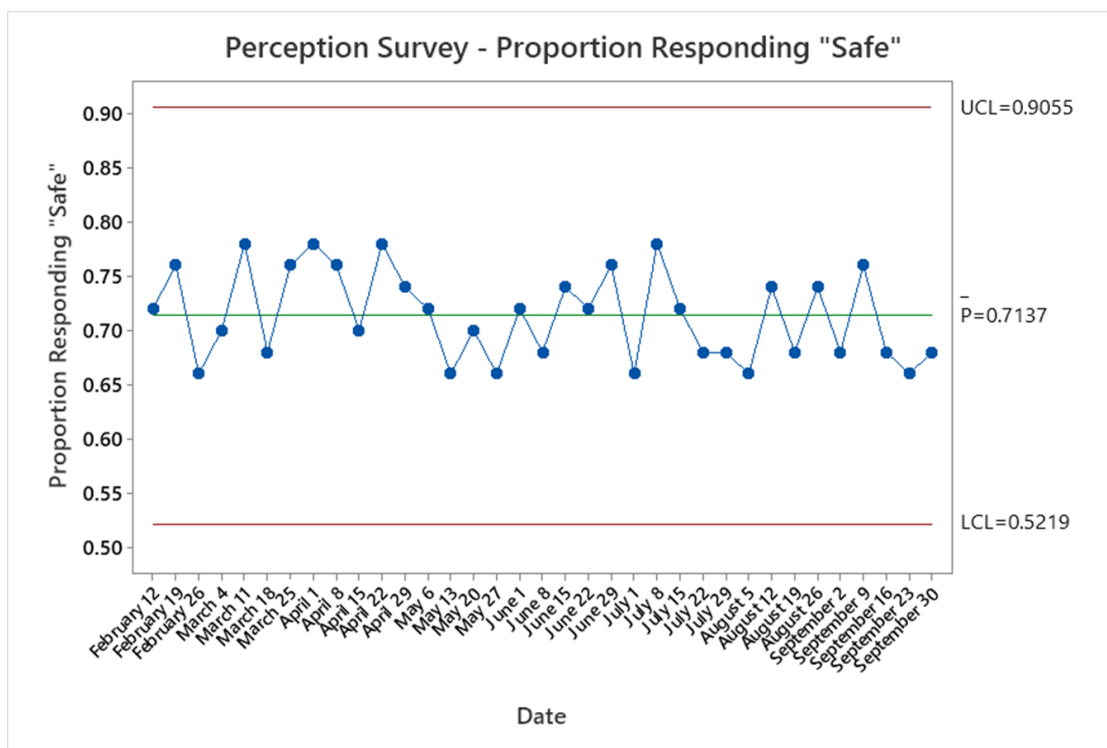
Figure 13. Statistical Control Chart for the Safety Dimension (Fictitious Data).

Illustrative Hypothetical Example (Fictitious Data)

Suppose the members of a Leadership Team (LT)—with input from others—identified and operationally defined five organizational culture dimensions they felt were important for their organization in light of the pandemic: *safety*, *empathy*, *resiliency*, *adaptability*, and *creativity*. The LT desires to *directionally improve* (i.e., *shape*) the organizational culture on these five culture dimensions (*aspirational intent*) to help assure the survival and future success of the organization (*expected outcomes*). The LT broadcasts a message to the organization stating: "We would like the culture of our organization to become stronger on the *Safety*, *Empathy*, *Resiliency*, *Adaptability*, and *Creativity* dimensions." The LT forms a team to administer an employee *perception* survey:

Survey Instructions: If you had to choose only one option for each of the five items (rows) below, then which option tends to best describe the members of your organization at work?

1. The members of my organization tend to be . . .   unsafe □ │ □ safe

2. The members of my organization tend to be . . .   unempathetic □ │ □ empathetic

3. The members of my organization tend to be . . .   non-resilient □ │ □ resilient

4. The members of my organization tend to be . . .   nonadaptable □ │ □ adaptable

5. The members of my organization tend to be . . .   uncreative □ │ □ creative

This survey design involves five items (statements) each with two response options. The <u>set</u> of responses for one survey respondent (employee) might be "*safe, unempathetic, non-resilient, adaptable, uncreative*" (see the blue rectangles in Figure 14) whereas the set of responses for another survey respondent (a different employee) might be "*unsafe, unempathetic, resilient, adaptable, creative.*" There are thirty-two (32) possible unique <u>combinations</u> of survey responses for the five culture dimensions ($2^5 = 32$). To summarize, this *perception* survey is measuring the **collective general employee perceptions** on the five culture dimensions.

Safety (Dimension 1)	Empathy (Dimension 2)	Resiliency (Dimension 3)	Adaptability (Dimension 4)	Creativity (Dimension 5)
Unsafe	Unempathetic	Non-Resilient	Nonadaptable	Uncreative
Safe	Empathetic	Resilient	Adaptable	Creative

Figure 14. In Blue – One Set of Responses Out of 32 Possible Sets of Responses.

We can visually display the results from the *perception* survey using the percentages associated with the thirty-two unique survey response combinations which are shown in Figure 15. They are arranged in rank order from the largest survey response percentage (24.80%) at the top to the

A	B	C	D	E	Percent
Safe	Unempathetic	Non-Resilient	Nonadaptable	Uncreative	24.80
Safe	Empathetic	Non-Resilient	Nonadaptable	Uncreative	14.87
Safe	Unempathetic	Resilient	Nonadaptable	Uncreative	10.44
Unsafe	Unempathetic	Non-Resilient	Nonadaptable	Uncreative	9.79
Unsafe	Empathetic	Non-Resilient	Nonadaptable	Uncreative	6.34
Safe	Empathetic	Resilient	Nonadaptable	Uncreative	5.28
Safe	Unempathetic	Non-Resilient	Adaptable	Uncreative	3.84
Unsafe	Unempathetic	Resilient	Nonadaptable	Uncreative	3.43
Safe	Unempathetic	Non-Resilient	Nonadaptable	Creative	2.85
Safe	Empathetic	Non-Resilient	Adaptable	Uncreative	2.59
Safe	Unempathetic	Resilient	Adaptable	Uncreative	1.93
Unsafe	Empathetic	Resilient	Nonadaptable	Uncreative	1.89
Unsafe	Unempathetic	Non-Resilient	Nonadaptable	Creative	1.64
Safe	Empathetic	Non-Resilient	Nonadaptable	Creative	1.45
Unsafe	Unempathetic	Non-Resilient	Adaptable	Uncreative	1.40
Unsafe	Empathetic	Non-Resilient	Adaptable	Uncreative	1.21
Safe	Unempathetic	Resilient	Nonadaptable	Creative	1.10
Safe	Empathetic	Resilient	Adaptable	Uncreative	0.85
Unsafe	Empathetic	Non-Resilient	Nonadaptable	Creative	0.55
Unsafe	Unempathetic	Resilient	Adaptable	Uncreative	0.54
Unsafe	Unempathetic	Resilient	Nonadaptable	Creative	0.53
Safe	Empathetic	Resilient	Nonadaptable	Creative	0.48
Safe	Unempathetic	Non-Resilient	Adaptable	Creative	0.48
Unsafe	Empathetic	Non-Resilient	Adaptable	Creative	0.43
Unsafe	Empathetic	Resilient	Adaptable	Uncreative	0.32
Safe	Empathetic	Non-Resilient	Adaptable	Creative	0.32
Unsafe	Empathetic	Resilient	Nonadaptable	Creative	0.16
Unsafe	Unempathetic	Non-Resilient	Adaptable	Creative	0.14
Safe	Unempathetic	Resilient	Adaptable	Creative	0.12
Safe	Empathetic	Resilient	Adaptable	Creative	0.11
Unsafe	Unempathetic	Resilient	Adaptable	Creative	0.06
Unsafe	Empathetic	Resilient	Adaptable	Creative	0.06
					100.00

Figure 15. 32 Ranked Possible Response Combinations (Fictitious Data, Green = Ideal).

smallest survey response percentage (0.06%) at the bottom. The interpretation: 24.80% of respondents chose the combination "*safe, unempathetic, non-resilient, nonadaptable, uncreative*" whereas 0.06% of respondents chose the combination "*unsafe, empathetic, resilient, adaptable, creative*." The sum of the thirty-two percentages equals 100.0%. The *most desired* combination (*Ideal Culture*) is "*safe, empathetic, resilient, adaptable, creative*" (shaded in green in Figure 15)

at 0.11% ("Top Five": 11 people in 10,000) and the *least desired* combination is "*unsafe*, *unempathetic*, *non-resilient*, *nonadaptable*, *uncreative*" (shaded in yellow in Figure 15) at 9.79%.

Geometric figures can be used to visually display the five individual culture dimension response percentages and their multi-dimensional combinations. For example, we can use a <u>line</u> to visually display the individual response percentages for any of the five culture dimensions; a <u>square</u> to visually display the response percentages for any combination of two dimensions; a <u>cube</u> to visually display the response percentages for any combination of three dimensions; <u>two cubes</u> to visually display the response percentages for any combination of four dimensions; and <u>four cubes</u> to visually display the response percentages for all five dimensions.

Multiple Culture Dimension Percentages Shown Simultaneously:

|	
Two Dimensions	10 Possible <u>Squares</u> (e.g., *Empathy* & *Adaptability*)
Three Dimensions	10 Possible <u>Cubes</u> (e.g., *Safety*, *Resiliency*, & *Creativity*)
Four Dimensions	5 Possible Sets of <u>Two Cubes</u>
Five Dimensions	1 Possible Set of <u>Four Cubes</u>

The *Safety* (*unsafe* vs. *safe*) culture dimension survey response percentages are shown in Figure 16 using a <u>line</u>. The *least desired* survey response was "*unsafe*" at 28.49% of respondents and the *most desired* (*Ideal Culture*) survey response was "*safe*" at 71.51% of respondents. The two percentages sum to 100% (28.49% + 71.51%). The color *red* (on the left) denotes the LT would like to decrease that percentage and the color *green* (on the right) denotes the LT would like to increase that percentage through intentional organizational actions.
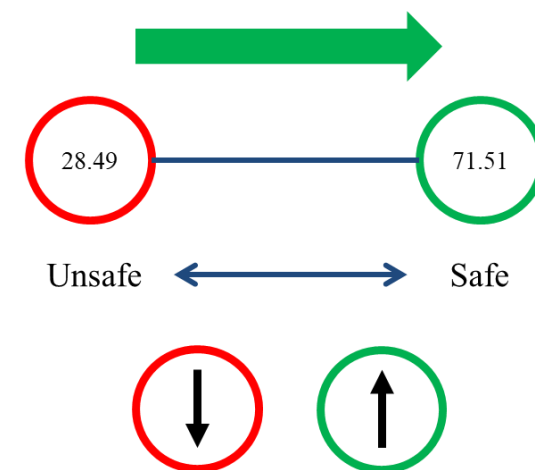
Distribution of the 100 Percentage Points

Figure 16. Response Percentages for the *Safety* Culture Dimension.

The individual survey response percentages for all five culture dimensions are shown in Figure 17.
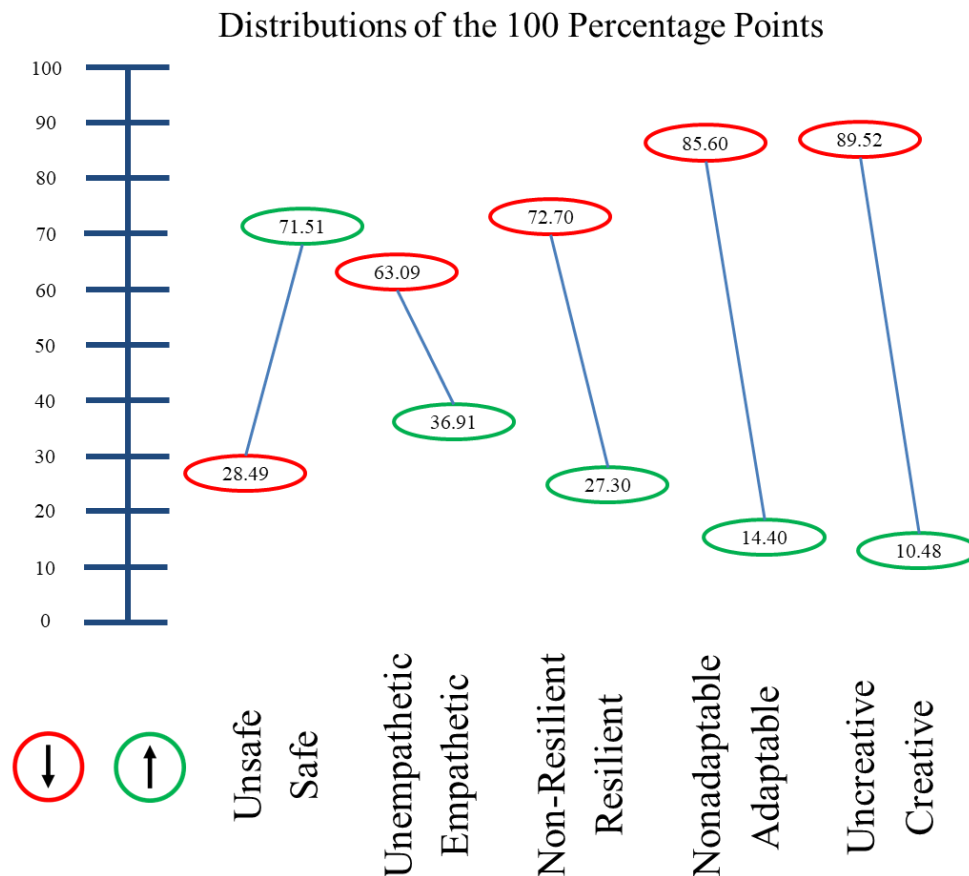
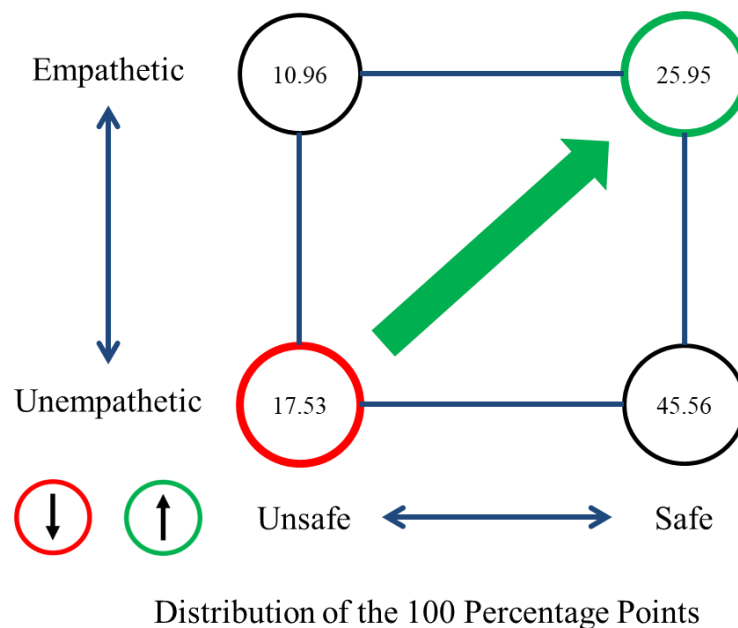**Figure 17. Response Percentages for the Five Culture Dimensions.**

The *best performance* was on the *Safety* culture dimension at 71.51% and the *worst performance* was on the *Creativity* culture dimension at 10.48%. The LT would like to decrease the red percentages and increase the green percentages through intentional organizational actions.

There are ten possible combinations of two-at-a-time pairings of the five culture dimensions (e.g., *Safety* and *Empathy*, *Resiliency* and *Creativity*, etc.). The response percentages for the four possible unique survey response combinations for *Safety* and *Empathy* are shown in Figure 18.

Unsafe	Unempathetic	(Lower Left)	17.53%	Least Desired
Safe	Unempathetic	(Lower Right)	45.56%	Not Ideal
Unsafe	Empathetic	(Upper Left)	10.96%	Not Ideal
Safe	Empathetic	(Upper Right	25.95%	Most Desired
		Total	100.00%	

Figure 18. The 4 Possible Response Combinations for *Safety* and *Empathy* (Fictitious Data).

We can visually display the survey response percentages of any combination of two culture dimensions using a *square diagram*. The response percentages for the *Safety* culture dimension (*unsafe* vs. *safe*) and *Empathy* culture dimension (*unempathetic* vs. *empathetic*) are visually displayed in Figure 19. We see that 25.95% of the survey respondents chose the *most desired* survey response combination "*safe*, *empathetic*" (*Ideal Culture*) whereas 17.53% of the survey respondents chose the *least desired* survey response combination "*unsafe*, *unempathetic*." There are two other possible survey response combinations shown in Figure 18. The LT aim would be to decrease the *red circle percentage* (lower left) and increase the *green circle percentage* (upper right) through intentional organizational actions.

Distribution of the 100 Percentage Points

Figure 19. Response Percentages for the *Safety* and *Empathy* Culture Dimensions.

You could stratify (sort) the individual survey response data by various organizational units such as business unit, division, service line, department, region, process, office, or plant and then visually display the response percentages. This would help identify "*strong*" areas in the organization from a culture standpoint and areas where more attention and resources are necessary.

We can visually display the response percentages involving any three of the five culture dimensions using a *cube plot*. There are ten possible unique cube plots of three culture dimensions. Cube plots are used extensively in the *Design of Experiments* field (see, e.g., Box, Hunter, & Hunter, 1978). The cube plot in Figure 20 is for the *Safety*, *Empathy*, and *Resiliency* culture dimensions. To interpret a cube plot, let's first focus on the *Safety* culture dimension. The four red circles on the left side of the cube ("Left") in Figure 20 represent the four possible unique survey response combinations where the respondent chose "*unsafe*" whereas the four green circles on the right side of the cube ("Right") represent the four possible unique survey response combinations where the respondent chose "*safe*." *Safety* is the "*left-to-right*" culture dimension in this cube.

Unsafe Combinations = Red (Left)
Safe Combinations = Green (Right)
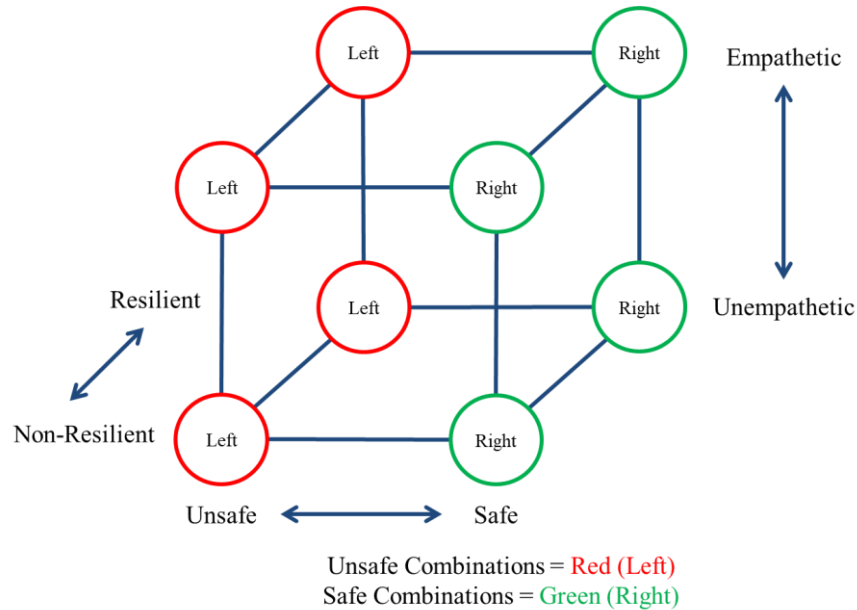
Figure 20. *Safety* Combinations are Left (*Unsafe*) and Right (*Safe*).

Next let's focus on the *Empathy* culture dimension by examining Figure 21. The four red circles on the bottom of the cube ("Bottom") represent the four possible unique survey response combinations where the respondent chose "*unempathetic*" whereas the four green circles on the top of the cube ("Top") represent the four possible unique survey response combinations where the respondent chose "*empathetic*." *Empathy* is the "*bottom-to-top*" culture dimension in this cube.

Unempathetic Combinations = Red (Bottom)
Empathetic Combinations = Green (Top)
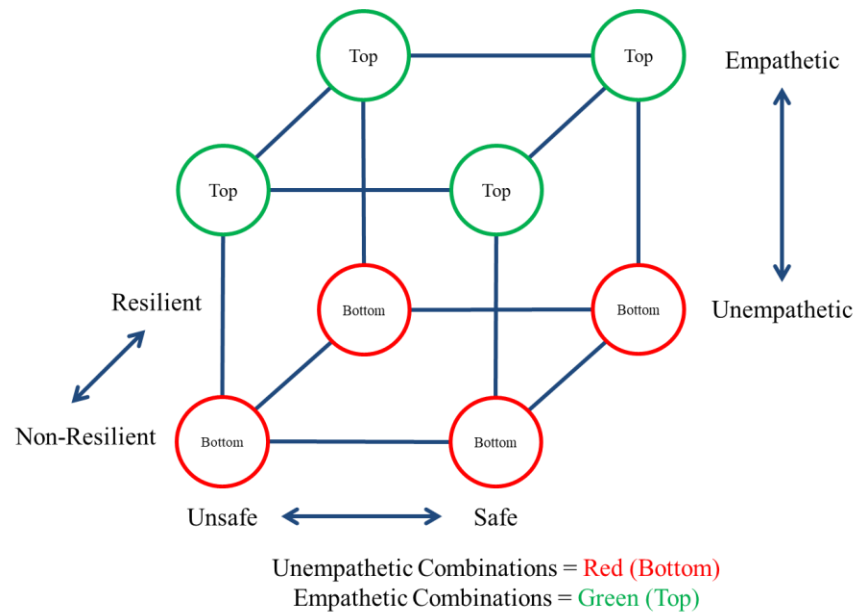
Figure 21. *Empathy* Combinations are Bottom (*Unempathetic*) and Top (*Empathetic*).

Lastly, let's focus on the *Resiliency* culture dimension by examining Figure 22. The four red circles on the front face of the cube ("Front") represent the four possible unique survey response combinations where the respondent chose "*non-resilient*" whereas the four green circles on the back face of the cube ("Back") represent the four possible unique survey response combinations where the respondent chose "*resilient*." *Resiliency* is the "*front-to-back*" dimension in this cube.
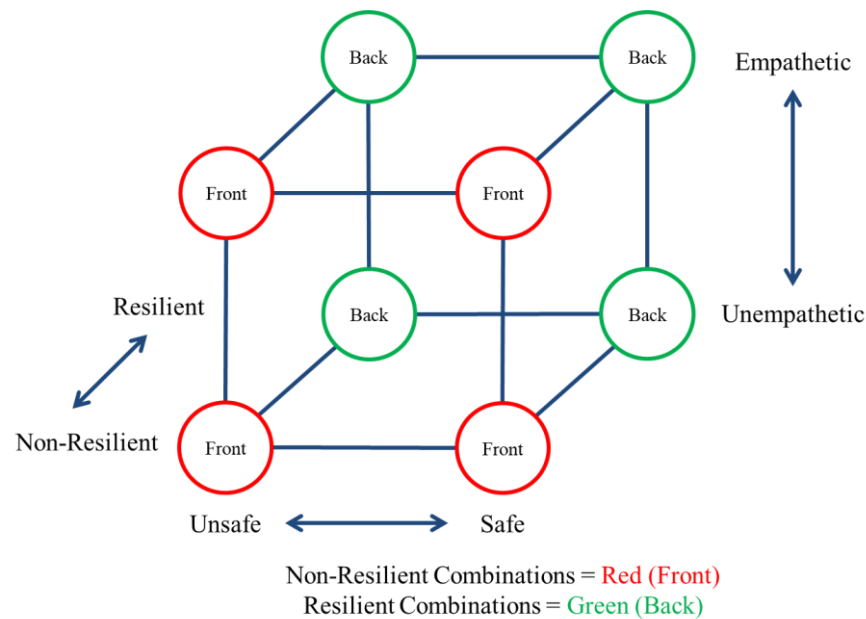

Figure 22. *Resiliency* Combinations are Front (*Non-Resilient*) and Back (*Resilient*).

The survey response percentages for the eight possible unique survey response combinations for the *Safety*, *Empathy*, and *Resiliency* (ignoring *Adaptability* and *Creativity*) culture dimensions are shown in Figure 23.

Unsafe	Unempathetic	Non-Resilient	12.97%
Safe	Unempathetic	Non-Resilient	31.97%
Unsafe	Empathetic	Non-Resilient	8.53%
Safe	Empathetic	Non-Resilient	19.23%
Unsafe	Unempathetic	Resilient	4.56%
Safe	Unempathetic	Resilient	13.59%
Unsafe	Empathetic	Resilient	2.43%
Safe	Empathetic	Resilient	6.72%
			100.00%

Figure 23. The 8 Response Combinations for *Safety*, *Empathy*, & *Resiliency* (Fictitious Data).

The cube plot for the *Safety*, *Empathy*, and *Resiliency* culture dimensions is shown in Figure 24. We see that 6.72% of the respondents chose the responses "*safe, empathetic, resilient.*" This is the *most desired* culture combination (*Ideal Culture*) and is highlighted in green. It means that our **Ideal Culture Yield**—if we only look at these three dimensions—**is 6.72%**. The LT would ideally like this to be 100% and so the LT would like to increase this percentage through intentional organizational actions. We also see that 12.97% of the respondents chose the responses "*unsafe, unempathetic, non-resilient.*" This is the *least desired* combination and is highlighted in yellow above and red below. The LT would ideally like to decrease this percentage. The most frequently chosen survey response combination was "*safe, unempathetic, non-resilient*" at 31.97%. Again, you can stratify the data and display the percentages by various organizational units.
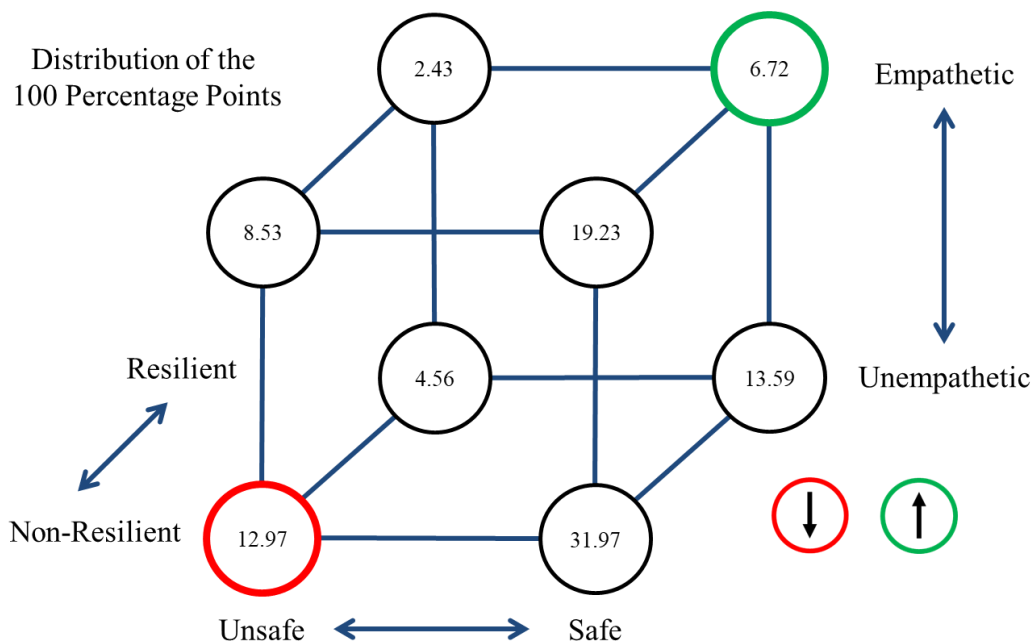
**Figure 24. Cube Plot for the *Safety, Empathy,* and *Resiliency* Culture Dimensions.**

Now let's add the *Adaptability* culture dimension to the mix. The sixteen possible combinations of survey responses are shown in Figure 25 along with the associated survey response percentages. The most desired response combination is in green and the least desired combination is in yellow.

We can visually display the response percentages of the four culture dimensions (*Safety, Empathy, Resiliency,* and *Adaptability*) using *two cube plots*. This is depicted in Figure 26. The cube on the left is like the previous cube in Figure 24, but now it is only for the *Nonadaptable* survey responses. The cube on the right is also like the previous cube in Figure 24, but now it is only for the *Adaptable* survey responses. We observe that 0.96% of the survey respondents chose the *most desired* survey response combination (in green in Figure 26) "*safe, empathetic, resilient, adaptable*" (*Ideal Culture*) whereas 11.43% of the respondents chose the *least desired* survey response combination (in red in Figure 26) *"unsafe, unempathetic, non-resilient, nonadaptable"*

Unsafe	Unempathetic	Non-Resilient	Nonadaptable	11.43%
Safe	Unempathetic	Non-Resilient	Nonadaptable	27.65%
Unsafe	Empathetic	Non-Resilient	Nonadaptable	6.89%
Safe	Empathetic	Non-Resilient	Nonadaptable	16.32%
Unsafe	Unempathetic	Resilient	Nonadaptable	3.96%
Safe	Unempathetic	Resilient	Nonadaptable	11.54%
Unsafe	Empathetic	Resilient	Nonadaptable	2.05%
Safe	Empathetic	Resilient	Nonadaptable	5.76%
Unsafe	Unempathetic	Non-Resilient	Adaptable	1.54%
Safe	Unempathetic	Non-Resilient	Adaptable	4.32%
Unsafe	Empathetic	Non-Resilient	Adaptable	1.64%
Safe	Empathetic	Non-Resilient	Adaptable	2.91%
Unsafe	Unempathetic	Resilient	Adaptable	0.60%
Safe	Unempathetic	Resilient	Adaptable	2.05%
Unsafe	Empathetic	Resilient	Adaptable	0.38%
Safe	Empathetic	Resilient	Adaptable	0.96%
				100.00%

Figure 25. The 16 Response Combinations for Four Culture Dimensions (Fictitious Data).

(yellow in Figure 25). The most frequently chosen survey response combination was "*safe*, *unempathetic*, *non-resilient*, *nonadaptable*" at 27.65%. As before, you could stratify the data and display the response percentages by various organizational units such as business unit, division, service line, department, region, process, office, or plant.

Distribution of the 100 Percentage Points
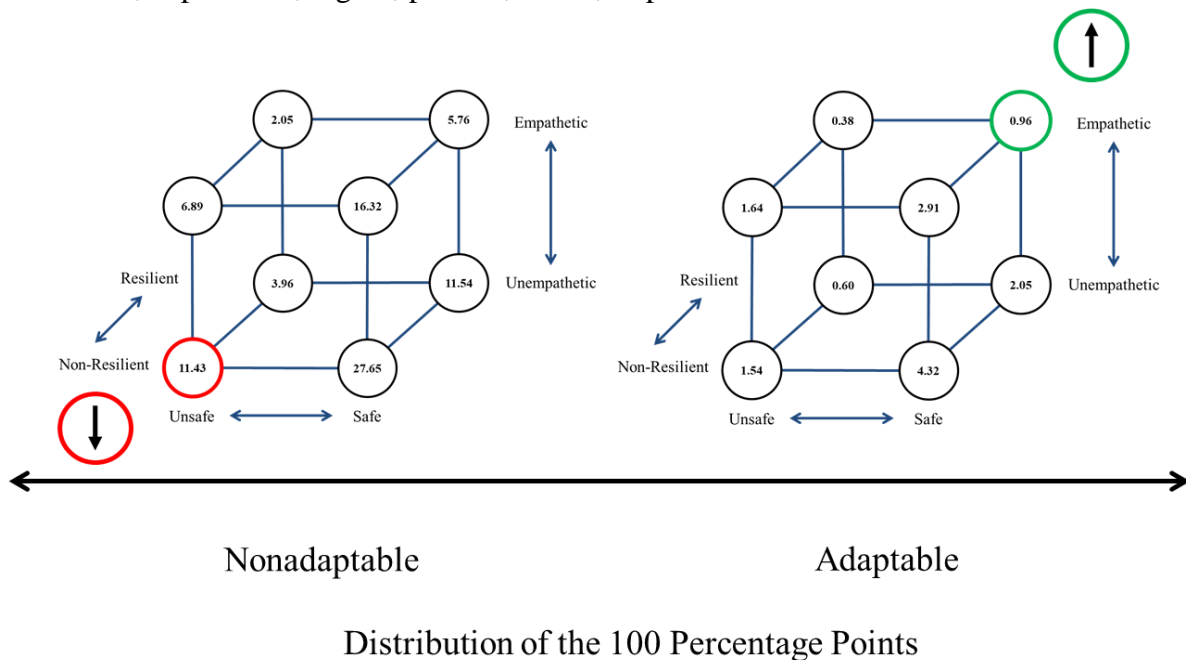
Figure 26. Response Percentages for *Safety*, *Empathy*, *Resiliency*, and *Adaptability*.

We can visually display the response percentages for all five culture dimensions by using <u>four cubes</u>. This is depicted in Figure 27. The sum of the numbers (response percentages) in the thirty-two circles equals 100%. They are associated with the thirty-two possible unique survey response combinations identified in Figure 15. We see that only 0.11% ("Top Five": 11 out of 10,000) of the survey respondents chose the *most desired* culture dimension combination (in green in Figure 27) of "*safe, empathetic, resilient, adaptable, creative*" (*Ideal Culture*) whereas 9.79% of the survey respondents chose the *least desired* culture dimension combination (in red in Figure 27) of "*unsafe, unempathetic, non-resilient, nonadaptable, uncreative.*" The LT would like to increase the *most desired* combination percentage (i.e., "Top Five" percentage) from 0.11% to some larger target number through intentional organizational actions. Suppose there were 4,500 survey respondents – then roughly 441 (4,500 x 0.0979) respondents chose the *least desired* culture dimension combination and roughly 5 (4,500 x 0.0011) respondents chose the *most desired* culture dimension combination (*Ideal Culture*). Where do the "441 people" and "5 people" work?

As before, you could stratify the data and display the response percentages by various organizational units such as business unit, division, service line, department, region, process, office, or plant. There are probably some areas of the organization "performing" better than others on the five selected culture dimensions – keeping in mind the data is from a *perception* survey.
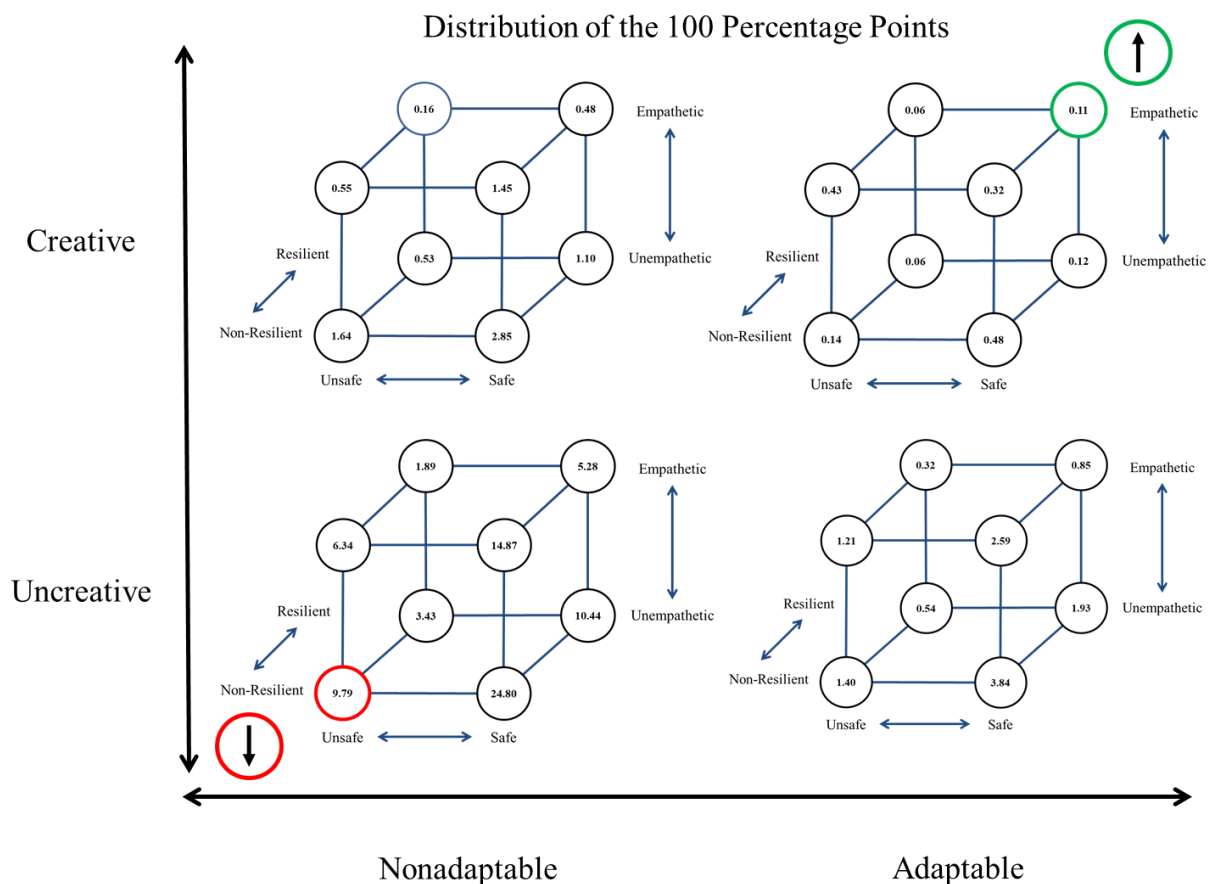

Figure 27. Response Percentages for the 32 Possible Combinations of the 5 Dimensions.

We have now seen how geometric figures can be used to visually display the five individual culture dimension response percentages and their multi-dimensional combinations: a <u>line</u> to visually display the culture performance on any of the five individual culture dimensions; a <u>square</u> to visually display the culture performance on any combination of two dimensions; a <u>cube</u> to visually display the culture performance on any combination of three dimensions; <u>two cubes</u> to visually display the culture performance on any combination of four dimensions; and <u>four cubes</u> to visually display the culture performance on all five dimensions. These will help us establish baseline performance levels on each culture dimension and their combinations. They will also help when conducting a Before/After analysis once intentional organizational actions have been taken.

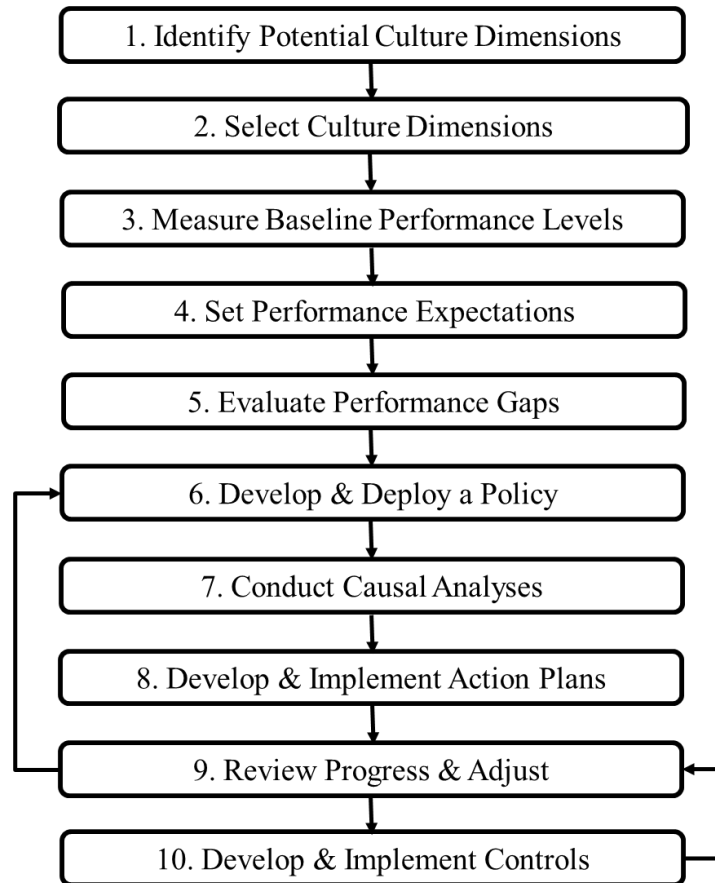## V. Shaping Organizational Culture

It was discussed earlier how a Leadership Team (LT) can (1) determine the culture dimensions that matter most to the organization and then (2) measure the baseline performance level on each dimension using a *perception* survey. Now what? How can an LT effectively and efficiently *directionally shape* organizational culture through a portfolio of projects? Again, *shaping* might mean only a minor culture change all the way to a radical culture transformation. There would be evidence of a culture change if the members of the organization started to have different thoughts, attitudes, behaviors, feelings, relationships, rituals, heroes, symbols, day-to-day activities, etc. There would also be detectable differences in the response percentages for the *least desired* and *most desired* response combinations in subsequent *perception* surveys. This would be apparent when viewing before-and-after line diagrams, square diagrams, cube plots, etc.

An emergent process (approach) for shaping organizational culture is depicted in Figure 28. The process utilizes some *Hoshin Kanri* (a.k.a. *Policy Management)* elements such as the concept of a *Policy* and the PDCA (or PDSA) Cycle (see, e.g., Akao, 1991; Japanese Society for Quality Control, 2017; and Liedtke, 2012). The process is not intended to be prescriptive, but rather it represents a sequence of activities that can potentially guide an LT in its attempt to shape organizational culture through intentional actions. The steps of the process will now be discussed.

1. Identify Potential Culture Dimensions: The execution of this step results in a list of potential culture dimensions for the organization to consider embracing, promoting, and adopting. The LT can decide who will be involved in this step and oversee its execution. It would be advantageous to have people with diverse perspectives involved in this step. Several activities could be helpful in this step such as conducting environmental scans to clearly understand what is happening in the world; analyzing the current Mission, Philosophy, Values, and Vision; conducting stakeholder focus groups, interviews, and surveys; touring operations; and conducting town hall meetings. The list of potential culture dimension candidates could be quite lengthy which is preferrable.

2. Select Culture Dimensions: This step involves the LT starting to conceptualize the *ideal culture* of the organization—i.e., establishing a *culture vision*. The execution of this step results in the selection of a reduced set of culture dimensions from the list created in Step 1. The "Top Five"

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┌─────────────────────────────────────────┐
│  1. Identify Potential Culture Dimensions │
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                    ↓
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│      2. Select Culture Dimensions         │
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┌─────────────────────────────────────────┐
│  3. Measure Baseline Performance Levels   │
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│      4. Set Performance Expectations      │
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│       5. Evaluate Performance Gaps        │
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│       6. Develop & Deploy a Policy        │
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│        7. Conduct Causal Analyses         │
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│   8. Develop & Implement Action Plans     │
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│       9. Review Progress & Adjust         │
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┌─────────────────────────────────────────┐
│    10. Develop & Implement Controls       │
└─────────────────────────────────────────┘
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Figure 28. Emergent Organizational Culture Shaping Process.

culture dimensions in the illustrative example were *safety*, *empathy*, *resiliency*, *adaptability*, and *creativity*. Several questions can be used to guide the selection activity: Which candidate culture dimensions are most closely aligned with our Mission, Philosophy, Values, and Vision? Which candidate culture dimensions would help assure the survival and prosperity of our organization? Which candidate culture dimensions resonate most with the stakeholders of our organization? Which candidate culture dimensions would the members of our organization be willing to embrace and embed deeply in all aspects of the organization? Standard prioritization techniques can also be used to help reduce the list. It is recommended that a small number of culture dimensions be selected initially for practical and logistical reasons. For example, five dimensions would be much more manageable for the LT than fifty-five. This will enable the LT to focus its attention and resources on those culture dimensions that are deemed to matter most. The selection process might involve intense discussions, debates, and arguments which can be necessary for creating conviction and commitment on the selected culture dimensions. The LT should eventually operationally define the culture dimensions—at a minimum—developing clear descriptions of what each culture dimension "is" and "is not." The selected culture dimensions can eventually be integrated into the management system and leadership development system of the organization. The LT must decide who is involved in this step and the urgency surrounding its completion.

3. Measure Baseline Performance Levels: It was mentioned earlier that various approaches can be used to measure baseline performance levels on (1) the *most desired* culture dimension combination ("Top Five" percentage which was 0.11% in the illustrative example – see Figure 27) and (2) each individual culture dimension baseline (see Figure 17). "Baselines" are starting points from which the LT would like to improve. The *perception* survey approach was earlier described. Sound analytical procedures should be used to measure baseline performance levels on the culture dimensions that are deemed to matter most. Otherwise, *bad data* will lead to *bad results* which could lead to ineffective and inefficient organizational actions. The baseline performance measurements can be static—in the form of a one-time perception survey—or dynamic such as administering a *pulse* perception survey every week or month as depicted in the statistical control chart in Figure 13. It was also mentioned earlier that there are *severe limitations of a perception survey* if the aim is to *thoroughly understand the culture*. The aim in this step is to obtain a general sense of the true sentiments of the members of the organization on the culture dimensions that matter most. A performance scorecard and/or dashboard can be created and used to track organizational performance on the culture dimensions. A key question emerges: Are you happy with the baseline levels of performance on the overall culture dimension metric ("Top Five") and each individual culture dimension? The geometrically-shaped visuals that were introduced earlier can aid in displaying and interpreting the results (see Section IV). You could stratify the data and display the results by various organizational units such as business unit, division, service line, department, region, process, office, or plant. This helps focus attention and resources.

4. Set Performance Expectations: The LT can decide to simply "*directionally improve*" or set specific target performance levels and deadlines for (1) the *most desired* culture dimension combination ("Top Five %" = 0.11% in the illustrative example – see Figure 27) and (2) each individual culture dimension (see Figure 17). For example, "Increase the Top Five Culture Dimension Percentage from 0.11% to 11.66% by July 1, 2021" and "Increase the *Safety* Dimension Percentage from 71.51% to 90.00% by July 1, 2021." The magnitude of improvement for *Safety* would be roughly 2.85X (= 284,900/100,000). Note that the above two statements consist of a metric (percent), baseline, direction (increase), target, and deadline. The targets should not be arbitrary numerical goals, but rather be based on some form of analysis. In any case, *directionally improving* or *setting specific target levels* signals an LT's performance expectation.

5. Evaluate Performance Gaps: A *gap* is defined here as *the difference between a baseline performance level and a performance expectation*. The gap for *Safety* in Step 4 is 18.49 percentage points (= 90.00 - 71.51). There will most likely be gaps of various magnitudes across the selected culture dimensions. The gaps can be prioritized which is especially important if resources are scarce. An "*Owner*" can be assigned to each culture dimension gap; a team can then be formed for each culture dimension; and then a project can be launched for each culture dimension. These efforts to impact the selected organizational culture dimensions can be formally managed using a project portfolio. An LT typically oversees multiple portfolios such as a Product & Service

Portfolio, Process Portfolio, and Project Portfolio. An organizational portfolio diagram is depicted in Figure 29. Notice there are five culture projects (shown in blue) as part of the COVID-19 Cobra Project Portfolio. The LT that is depicted in this diagram has a portfolio of projects to *shape* organizational culture on targeted culture dimensions.
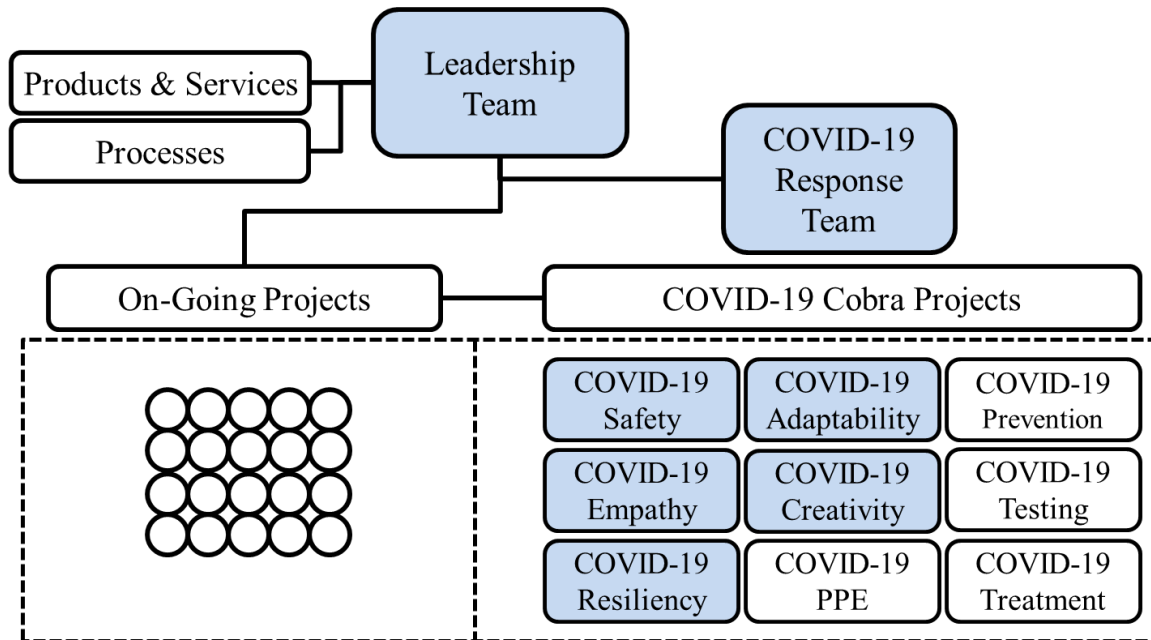
Figure 29. Project Portfolio.

6. Develop & Deploy a Policy: A *Policy* is defined here as a "Priority Issue + Objective + Strategies" (see, e.g., Liedtke, 2012; and Japanese Society for Quality Control, 2017). What follows is a sample policy for the five featured culture dimensions in the illustrative example:

Priority Issue: Our organizational culture is weak on several important culture dimensions.
Objective: Increase the Top Five Culture Dimension Percentage from 0.11% to T% by
   July 1, 2021 ("T" = some target percentage based on some form of analysis).
**Strategy 1:** Increase the *Safety* Dimension Percentage from 71.51% to T% by 7/1/2021.
Strategy 2: Increase the *Empathy* Dimension Percentage from 36.91% to T% by 7/1/2021.
Strategy 3: Increase the *Resiliency* Dimension Percentage from 27.30% to T% by 7/1/2021.
Strategy 4: Increase the *Adaptability* Dimension Percentage from 14.40% to T% by 7/1/2021.
Strategy 5: Increase the *Creativity* Dimension Percentage from 10.48% to T% by 7/1/2021.

   Note that the targets ("T") would have been set in Step 4—"*Set Performance Expectations.*" A Tree Diagram can be used to visually display the *Policy* and the subsequent key outputs from the organizational culture shaping initiative. A partial Tree Diagram is depicted in Figure 30. Sub-strategies might be created for each strategy if the data were stratified and analyzed in more depth.
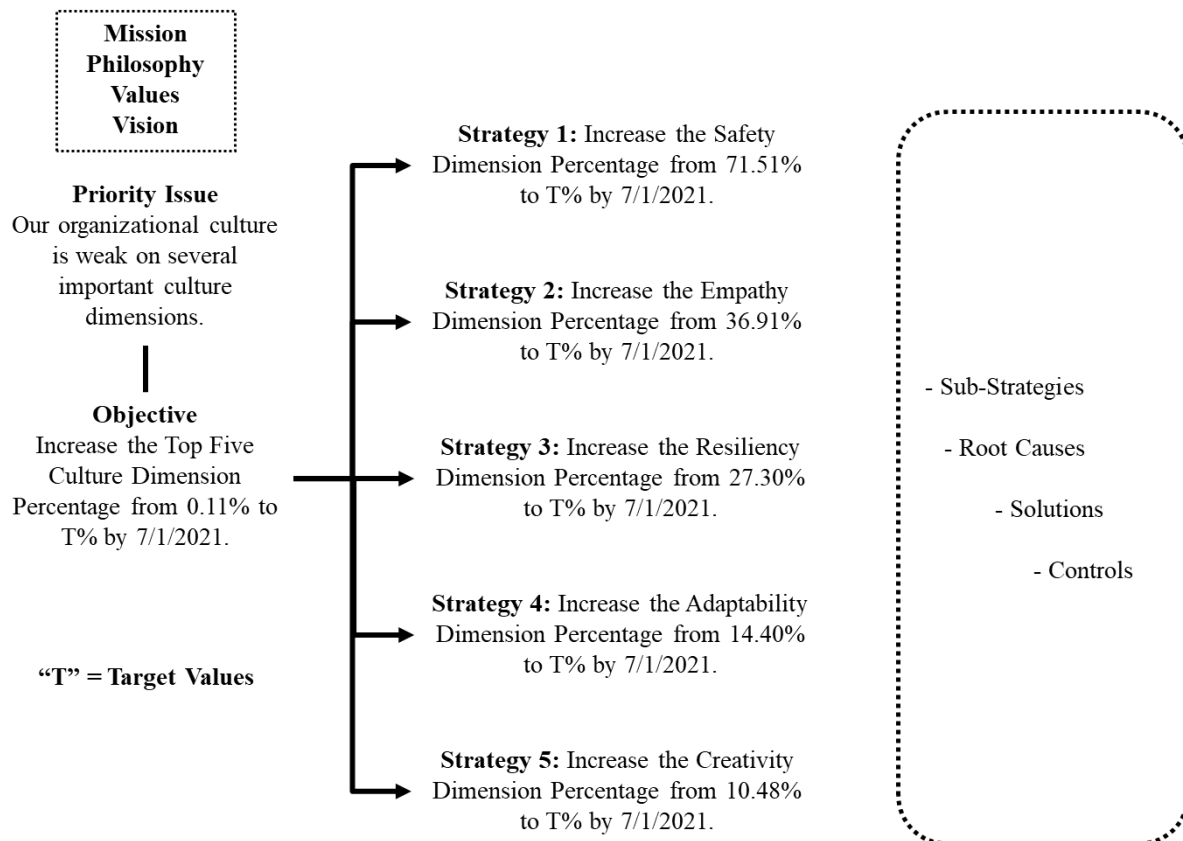
Figure 30. MPVV & A Policy (Priority Issue + Objective + Strategies).

7. Conduct Causal Analyses: A causal analysis can be conducted for each strategy or for each sub-strategy if the data were stratified (e.g., by business unit, division, region, process, etc.). The standard causal analysis tools can be used including the cause-and-effect diagram, affinity & relations diagrams, Five Whys, and statistical methods. It is important here to move beyond "*top of mind*" symptoms and get to the causes. For example: What causes "*unsafe*" perception survey responses for the *Safety* dimension? "*Poor Workplace Communication*" would probably be a *symptom* and not an *underlying cause*. The causal analyses might include interviews, focus groups, observation (e.g., *genchi genbutsu*), and experimentation. The outputs of this step will be *verified causes* for each strategy or sub-strategy.

8. Develop & Implement Action Plans: Intentional organizational action plans for each verified cause from Step 7 can be developed and implemented using the PDCA (or PDSA) Cycle. The action plan structure should contain at a minimum basic action plan information such as *what*, *why*, *who*, *where*, *when*, *how*, and *how much*. Some actions (solutions) might impact only one culture dimension whereas other actions (solutions) might impact two or more culture dimensions simultaneously. As an example, the *effective implementation of workplace huddles* might impact employee *perceptions* related to *Safety*, *Adaptability*, and *Creativity*. Data can be collected and analyzed in the form of a Before/After Analysis to determine if the *perceptions* have changed.

Also, some culture dimensions will have associated metrics which can be monitored to determine if progress was made. For example, for the *Safety* culture dimension, the Lost Time Injury Frequency Rate, number of incidents, number of near misses, and regulatory violations can be tracked. The members of the LT should not be surprised if there is resistance to some of the actions—this is normal and to be expected. The LT should attempt to address the resistance in a positive manner.

9. Review Progress & Adjust: The LT can conduct a periodic review (e.g., weekly, monthly or quarterly) to determine if satisfactory progress is being made on the overall percentage ("Top Five %" at 0.11% in the illustrative example) and for each selected culture dimension. The purpose of these progress reviews should be "*to learn as much as we can and reach consensus on a positive way forward*." The Four Student Model advocated by Dr. Noriaki Kano (see Ando & Kumar, 2011) can be used to structure the conversations during the reviews. The knowledge acquired during the progress reviews could lead to adjustments of any of the policy items including the objective, strategies, sub-strategies, causes, and/or actions (solutions). The review is made easier if a pulse perception survey is conducted that is synchronized with the progress review cycle. This could be conducted either monthly or quarterly as part of the management system review.

10. Develop & Implement Controls: If the action plans—or adjusted action plans—are successful, then controls can be developed and implemented to institutionalize the actions (solutions). These controls could be in the form of policies, protocols, procedures, processes, and audits. Also, the LT should think about introducing new culture items such as rituals, symbols, stories, celebrations, and heroes—to name a few—into the organization that are linked to the selected culture dimensions. Culture dimension performance can be tracked over time using a periodic pulse perception survey. A statistical control chart can be created for each culture dimension (see Figure 13). Scorecards and dashboards can be created and periodically reviewed. The Owner of each culture dimension can oversee this activity. Education and training activities can be conducted. The controls can be integrated into the management system, leadership development system, product/service development process, policies, processes, and procedures of the organization. The LT will have to decide how to address behavior that runs counter to the selected culture dimensions. What if an employee intentionally works in an *unsafe manner*? Expectations should be clearly set. If behaviors that "*run counter to*" the desired culture are consistently observed, then some remedy might be appropriate. However, if the LT is leading the culture improvement efforts with a sincere approach and through active engagement, then this might be unnecessary. You would hope the members of the organization are intrinsically motivated to be *safe* and not intentionally putting themselves or others in danger.

VI. Conclusions

Peter Drucker has been attributed with the expression "*Culture eats strategy for breakfast.*" One interpretation of this expression is that an organization's *culture* can doom an incompatible *strategy*—i.e., *culture* is superordinate to *strategy*. This author (Liedtke, 2019) described the importance of the social structure (*culture*) in strategic planning processes. The challenge for a Leadership Team (LT) is to envision and articulate the desired organizational culture and then effectively and efficiently move the organization towards that *culture vision* through intentional organizational actions. Simply espousing new values and implementing a new ritual is not a plan.

In this research report, the value sets of four organizations (Apple, Mayo Clinic, Microsoft, & Toyota) were examined to derive examples of culture dimensions. An illustrative example was then provided—based on the current pandemic—which featured five culture dimensions: *safety*, *empathy*, *resiliency*, *adaptability*, and *creativity*. It was then described how "*organizational culture*" can be made more concrete by having the Leadership Team select measurable culture dimensions and then oversee the administration of a *perception* survey to establish baseline culture performance levels. It was also shown how geometric figures can be used to visually display culture performance on multiple dimensions simultaneously. Finally, an emergent *organizational culture shaping process* was introduced and described as one way an LT can approach the task. This represents an intentional LT approach for *shaping the culture* of the organization as opposed to the approach of "*Let's change our culture!*" with no plan or roadmap. There will be challenges and setbacks, but adjustments can be made based on learning-oriented progress reviews.

Values represent one important aspect—some say *the heart*—of organizational culture. Choose them wisely, *carve them in stone* if you dare, and then imbed them deeply in your organization so that they become your *Oahe* (pronounced "*oh wah hee*") which is a Sioux word meaning "*foundation*." Best wishes in your efforts to shape your organizational culture.

Acknowledgements

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Charles earned a Ph.D. in Business (Operations & Information Management); a Ph.D. Minor in Statistics; and an MBA from the University of Wisconsin-Madison. He also earned an M.S. degree in Statistics from Iowa State University and a B.S. degree in Economics from South Dakota State University.

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