Research of Leadership Qualities Exhibited by Female Leaders

by

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Women represent a small portion of all chief executive officers for large organizations. Technology organizations, such as software, biotechnology, science, energy, information, and media have even less women in top positions (Ebrahimji, 2020). Additionally, there are less leadership resources specifically available for women who want to move up in their career who may feel weighted by a glass ceiling. The purpose of this thesis is to provide evidence of quality attributes that can be deployed by women to increase their opportunities for success. This thesis explores a current perspective of female leadership in technology industries by examining specific behavioral attributes of a select group of women. These attributes provide insight into how women can achieve the same level of success as their male counterparts in large organizations, thereby increasing the number of women in executive leadership positions. The purpose of the findings is to create a pathway for success for aspiring female leaders in today's world.

Using qualitative methods and secondary data from quantitative methods of research, leadership traits of prominent women were documented and compared. The comparisons created a way to infer relative importance women placed on certain attributes on their own path to success. Through the use of a Likert scale of relative importance, qualitative attributes were rated in order to create a quantitative measure. Results from the research indicated that top female executives attribute their success to the following attributes in a descending order: knowing others and trusting their teams, exhibiting empathy for others, understanding of complex gender roles and assigning non-traditional roles to partners, knowing the value of things, valuing authenticity over perfection, knowing their own thought process and expertise, knowing where they are going or visioning, exhibiting ambition and drive despite negative reactions or showing resilience, knowing their own passions, leveraging personal experiences and tragedy that makes them change their career trajectories, and overcoming education and experience bias. Additional research areas to further pursue research on this might be to obtain similar documentation on male leaders and contrast it with the results of this research.

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by

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CHAPTER 1: PURPOSE

Introduction

There have been many books, articles and assessments since the industrial revolution about the emergence of leaders in a technology-driven world. Since the 18th century, the world has been led by leaders who have managed through innovation in products, processes, and the organization. Many inventions that shaped our world are the railroad, cotton gin, the printing press, electricity, the automobile, refrigeration, and the computer. The internet also tops this list, but what makes it different is the ability to connect people regardless of socioeconomic advantage. Technology has changed how we design, manufacture and mass market products today. Leaders in technology have been studied since the mid-1900's for their ability to bring to fruition these innovations. A question of paramount interest has been: What attributes do these leaders have that make them more successful than others? The thought that attributes can be identified and studied by others for their leadership journey has been the prime motivator in undertaking this research.

On initial research as to what makes leaders successful in their organizations, eleven basic leadership and management attributes were identified, of which five were common among all leaders and six being predominately among female leaders. General leader attributes include trust, thought process and expertise, passion, value of things and vision. Based on this research conducted, female leadership attributes include: empathy, understanding complex gender roles, authenticity, ambition and resilience, connecting personal experiences to career, and overcoming education or experience bias. By learning how to lead, either by formal education or experience, leaders can gain valuable insight in how to create a successful career for themselves. Through

this research, it has been identified that people become leaders over time and by failing and succeeding in their professional lives. Learning about leadership is also an exercise in identifying patterns for success. The goal for the author, through the study of some of the most influential leaders in modern history is to find a pathway for career success as a successful leader. The other goal is to identify why some leaders fail repeatedly to perform at their highest ability level. Leadership is not about individual wins and losses, as leadership is a marathon and not a sprint. It is about learning over a lifetime how to apply failures and successes to the leading of people.

Pursuit of Leadership Excellence in Society

What makes a leader great? This question is complex because the formula for success does not exist in one traditional pathway. Through research and findings from there, it is evident that it is a combination of attributes that a leader has naturally or that they continually work on, that make them successful. Also, there are some quality attributes that exist in the sphere of the female leadership experience that have been discovered through this research. The interviews, articles, journals and books reviewed felt like a raw and unfiltered deep dive into the personal lives of people. However, it was important to gather as much information as possible to help bring to light the true leadership characteristics that these individuals possessed. After a year of studying and reading about leadership, there is still much more to learn about the best approach for the author's personal leadership journey. It is a goal of this research work to aspire leaders and personally challenge them through the findings to improve their own leadership abilities.

Anyone who leads or wants to lead others will at some point do some deep self-reflection on why it is or is not working for them. It is important as a part of self-reflection to learn from

others and gather as much qualitative and quantitative information as possible. Two important questions that might come up during the self-reflection can be: Is it harder for a female to get into a position of leadership, and are there pathways for success that one can employ to be a successful leader?

Female Leaders Emerge in Traditional Industries

One of the aspects of this research that was particularly interesting was the emergence of female leaders. It has been difficult for women to rise to top leadership positions in traditional industries, like technology firms, software companies, healthcare facilities, and biotechnology organizations. Their personal triumphs and failures are not always told. Some choose to craft biographies that tell their rise to leadership and some choose to remain quiet about their journey. Female leaders who become more aware of how their journey could positively impact other women have provided more information and guidance on best practices that they have identified and deployed in their careers. For this research, more than a hundred interviews, articles and biographies were gathered to examined to identify the path of women leaders.

This research also led to understanding of attributes that women need to have that make them strong candidates for leadership positions. Within a woman's personal journey to success, there are missteps, recalculations and redirections. How women navigate their careers has a lot to do with their gender and the roles that they embody at home and at the office. Their leadership abilities are relatively unique, as well as the paths they follow. This framework of understanding the female leadership experience led to the realization that there had to be qualities that help women achieve the same level of success as their male counterparts. The goal was then to identify if there is a formula that other women could follow to get a similar result.

As winning patterns exist in traditional leadership theory, there is a possibility that patterns exist in the female leadership experience as well that can be utilized by other women.

Building Pathways to Executive Success for Women

The common attributes of successful female leadership needed to be examined further to determine what priorities women placed on them. Every person is different in how they lead. Lumping all women together and asserting that with one specific quality attribute, other women can become successful, would be an incorrect assumption. Therefore, the questions and research led to examining twelve female leaders and their definition of successful leadership attributes. After doing research on their personal journeys, there needed to be some sort of comparison made to determine if there were overlaps in the identified attributes. Once those comparisons were made, then a strong list of attributes could be created. From there, a pathway towards success could be made for each woman based on their unique journey. In essence, if all of these women sat around a table and talked about what personal attributes made them successful, top qualities and repetitive responses would arise. If all of these women were given an assignment to rank a set of leadership qualities as *most important* to *least important*, the findings within this thesis would come relatively close to their responses. In theory, research into their personal lives could be done by reading their biographies and inferring their quality attributes. Pathways could then be created for other women on qualities that it takes to be a successful female leader. This thesis is an attempt to provide helpful guidance to aspiring, predominantly female leaders of tomorrow.

CHAPTER 2: LITERATURE REVIEW

One of the difficult aspects in this research was finding relative and meaningful literature from which information could be extrapolated. The basis of this thesis was different in that it relied completely on qualitative results from leadership books and the author's personal perception. Therefore, it was important to gather as much information as possible. Fifty-five books, forty-two journal articles and websites, and fifteen interviews were reviewed for inclusion into this thesis. Eighty-two total sources were determined to be most relevant to this thesis and are cited throughout.

Searching and Categorizing Materials

All books for this review were either purchased online, borrowed from colleagues, or retrieved from the Johnston County Public Library. All articles, magazines and interviews were retrieved from Google searches from a computer.

During the search, an item was considered relevant if it included key words about modern leadership theory. Some of the key words researched were "qualities," "leadership," "traits," and "success." These key words led to modern leadership books from notable authors on contemporary organizational leadership. Materials that were of particular personal interest included topics on *how humans interact with work and others,* as well as *good leadership attributes.* The types of topics that reoccurred during searches were teamwork, expertise, passion, production, and vision. There are more topics in general leadership theory, but the focus for this thesis was to select the reoccurring topics during the search, compare writings from notable sources and determine if there were commonalities.

As it related to female leadership materials, an item was reviewed if it highlighted a female leader of an organization or someone who had unique experiences that led to their rise into a leadership position. The selection of the women was done at random, based on searches completed for "leader," "woman," "success," and "technology." If the literature included these key words and the subject identified was a female, it was included in the study. Additional website searches were completed to determine if supporting documents were available. Once twelve women and at least three substantial sources of data for each that provided context into their leadership style was identified, focused research began.

Literature Review Findings

Much of the research done at the beginning of this thesis covered general leadership theory. Five major attributes continued to emerge, which provided context into *how humans interact with work and others* as well as *overall good leadership attributes.* The five major attributes were then later used to establish fundamental research questions on general leadership theory. The most helpful items were autobiographical books and leadership specific books written to encourage self-improvement. Female leadership books were somewhat more difficult to find. There are a few female leaders who have written multiple books, and in such cases, all relative works were considered. Literature was categorized in two types:

1) Literature associated with general quality attributes in modern leadership theory.

2) Literature based on major attributes reported by modern female leaders.

Literature did overlap and was classified in the category where it had the most relevance.

General Leadership Attributes

Through evaluation of general leadership theory, five attributes were discovered. In the sections that follow, these attributes are discussed along with references that support findings of why these are good leadership qualities to possess in modern society. They are:

1) Trust: Knowing others and trusting teams

2) Thought process and Expertise: Knowing their own thought process and expertise

3) Passion: Knowing their own passions

4) Value of Things: Knowing the value of things

5) Vision: Knowing where they are going

In order to properly categorize materials, Table 1 was created that organized key words and phrases for alignment to attributes.

Table 1: *General Leadership Attributes Explanation Table*

Trust	Thought Process & Expertise	Passions	Value of Things	Vision
Knowing others and trusting teams, relationships	Knowing their own thought process and expertise	Knowing their own passions	Knowing the value of things	Knowing where they are going
Collaboration, teamwork, delegation	Knowledge, education, experience, knows strengths/weaknesses	Following their heart, time spent learning leadership	Production: Products (ex: people, electricity, medicine), knowledge transfer	Vision for self, can communicate it out, internally inspired
Trusting their company values	Research of the market, industry knowledge	Exhibiting warmth, emotion, seeing good in others	Establishes principles, processes for quality	Vision for their organization, motivate/buy-in
Character, integrity, ethics	Competence, assesses risk	Character, integrity, ethics, communicate ideas/passions	Creative problem-solving, details and big picture	Future, Outcomes, Mistakes=Learning, marketing

Trust

Effective leaders must trust their employees because they cannot do it all. During the growth phase of any business, leaders must hire people and trust them to do their job. A leader's job is to oversee their wellbeing. The hardest transition as a leader is the transition from managing tasks to leading people. Within the scope of trusting others, is allowing for teamwork and collaboration to occur organically. Teamwork can be defined as a group of people who provide input and action towards a common goal. Good teamwork leads to good collaboration. Collaboration is when people are happy to provide input followed with action. To get to that happy point, leaders must provide the safe space for employees to share their ideas towards the goals. This includes allowing for open dialogue, including cross-functional teamwork and allowing disagreements to be settled judiciously without interruption from the leader. Only if an impasse occurs, should the leader intervene.

One of the pitfalls for leaders with trusting teams is when that trust is broken. Knowing how to respond to broken trust is sometimes difficult, because a lot of reactions to trust issues in human relationships stem from learned behavior through personal experiences. A leader has to calibrate their response to the given issue at hand, following a feedback response that encourages redirection and not loss of enthusiasm towards to the project. Another pitfall is resisting the need to have things done the leader's way. In teams, the goal is the outcome and not the process to get to the outcome. Sometimes as leaders, it is easier to get results faster using one's own learning from previous challenges. Resisting the urge to fast-forward the learning process for the team is a hallmark of a great leader. Allowing the team to organically reach a common method to achieve the result and not intervening unless an impasse has occurred, allows the team to fully

develop cohesively and satisfactorily achieve the overall outcome. Resentment towards other members can arise as well, so knowing how to handle delicate egocentric moments is critical.

A great example of how trust plays out in the world of business is an unfortunate event in 1982, which has unofficially come to be known as the Tylenol deaths incident. Several people took Tylenol, which was mixed with cyanide. The manufacturer Johnson & Johnson, took a bold stance by recalling millions of bottles and further creating a tamper-proof bottle to prevent anyone from adulterating their products. While they could have shrugged off the incident as isolated to one customer with evil intent, Johnson & Johnson took it a step further to ensure that this incident didn't repeat and thus led an industry-wide movement to ensure safety of products sitting on shelves by all drug manufacturers. The impact of this movement can still be seen on prescription bottles, as well as bottles on the shelves of pharmacies sealed with a tightly closed cap (Knight, 1982).

What does this example have to do with trust? The company, not through regulations from the government but by doing the right thing, regained trust among the public in their products. Johnson & Johnson has since grown to be one of the largest manufacturers of home, hospital and drug products. Through problems, individuals and organizations can shrink back their market share or they can seize the opportunity to build trust and rewrite the wrong that was done. Leaders must be credible in the fields they create and operate. A great leader will equally accept times of defeat, times of trial and failure, and times of success. Tom Morris wrote a book called *True Success* and within it dissected the word integrity. He explains that integrity in its truest form is harmony and wholeness to the extent to which an organization is able to be in harmony and wholeness with their part of the world's production ecosystem (Morris, 1994). Harmony and wholeness are the basis of integrity, which breeds trust among consumers and

employees. If a leader has integrity, employees will trust them to lead through the black and the red.

Another important aspect of trust is character. In its most basic form, character means that what one says is done. Character is what goes on inside the mind of a person, that seeps out whether wanted or not. There are plenty of books devoted to character, but at its core character refers to how someone weaves their ethics into their professional, personal and family experiences. Whether we want it or not, we display our journey, our decisions, our experiences and our choices clearly to the world. Eventually, people can see where we have come from and how we got to that point. Nothing matters in the end if we cannot connect to other human beings with our struggles, successes, failures and triumphs. Leaders must know themselves enough to show true character, as transparency is important to build trust. The same goes for leadership in business – people trust a leader who is transparent, and able to show the medals and the scars. Whether leading a group into battle or the boardroom, character is paramount.

Followers learn quickly that to gain the acceptance of their boss, they must emulate their boss's behavior. While some people will call such a follower the boss's pet, the reality is that we will rise to the level of leadership that we see that works within an organization. If a leader is unethical or unclear about their intentions in a situation, employees will either mimic that behavior or simply leave if their convictions are strong enough. This theory goes back to a previous statement: leaders must do what they say they will do *and* do it with integrity. In his book, *Deep Change: Discovering the leader within*, Robert Quinn explains that no one follows a leader whose actions and words do not line up (Quinn, 1996). Hypocrisy is the antithesis of ethical character. True leaders are always working to close the gaps on their words and actions, making sure that both are in alignment.

One of the best songs ever written is "Simple Man" by Lynyrd Skynyrd. The lyrics speak to being simple, which in this context means making sure the heart and head align, to be satisfied with life and to do the best possible:

Forget your lust for the rich man's gold

All that you need is in your soul

And you can do this, oh baby, if you try

All that I want for you my son, is to be satisfied

And be a simple kind of man

Oh, be something you love and understand

(Rossington & Van Zant, 1973, stanza 4)

How many leaders do not understand themselves? Leading with character means knowing the passions, motivations and driving forces behind decisions. Leaders show commitment to ethical behavior to help employees reach their fullest and best potential. Being simple, in a sense, is how leaders can win the hearts of their employees; easy to understand, easy to follow.

As a leader knows her or his own self well, so must they also know others to build trust. How can a leader learn about others? One of the most effective methods of learning about a team is to decentralize power and watch what happens. In the book *Extreme Ownership* by Willink and Babin, a leader is encouraged to empower teams to make decisions and allow things to unfold organically. To encourage and empower people, a leader must carefully and strategically communicate expectations called situational awareness, and allow others to take

ownership of the delivery and results (Willink & Babin, 2017). Frontline employees are the heartbeat of any organization, and are the ones who make sure the mission of that organization is carried through to achieve results. A leader, especially a new one, cannot intrinsically know what pitfalls or weaknesses exist in their team at the start. By decentralizing command, and effectively delegating tasks, leaders can watch their employees work and determine how to develop them from their performance on those tasks (Willink & Babin, 2017).

Employees must also recognize what is within their decision-making abilities and what is outside of their immediate authority. Willink and Babin suggest that the goal is to consistently mentor employees to take ownership of what is within their scope and to define what is not (Willink & Babin, 2017). By winning or losing in their scope, a great leader can assess the areas in which that employee needs help. A great leader can then offer help, guidance, and resources to build their employees up to their best selves. Sometimes, however, those in leadership positions can take back those tasks instead of keeping them delegated. When this reversal happens, employees can begin to develop a sense of inadequacy in their job, leading to unhappiness, resentment, and burnout. Leaders allow employees to make mistakes, praise them when they win big, and guide them to the goals in a supportive manner. By supporting them, leaders learn and build trust with their people and organization. Leaders must present an active interest in the development of their employees, seek to help them whenever possible and build rapport that allows employees to be their most authentic selves at work.

Trust is a two-way street; it is the responsibility of the leader and the follower. Leaders must trust their employees to get their jobs done. Followers must trust their leaders to see the best in them and to provide a safe, working space to hone their skills. As Johnson and Ridley examine in *The Elements of Mentoring*, for developing an in-depth understanding of proteges,

leaders must develop a personal relationship that is more than a name, title, and skillset (Johnson & Ridley, 2004). The human ability to listen, communicate and provide feedback is crucial to the leader-employee relationship. Talking with people face-to-face, studying their body language, and seeing them for who they really are is the first step in building an understanding of patterns and behaviors of human consciousness. It is the responsibility of the leader to acknowledge their employee's fears, weaknesses and strengths, and provide feedback to develop a real, involved relationship. This action builds understanding, leading to trust. Leaders would do well to accept this responsibility as the most important engagement they can have with their employees. As a follower, employees should show up as themselves and be as authentic as possible with their leader. Breaking down communication barriers and focusing on strengths and areas of improvement will help employees become their best selves. After significant interaction spread out over time in maneuvering particularly difficult situations, trust is built between leaders and their employees.

Thought Process and Expertise

Leaders must know their own thought process and expertise. When a leader understands their thought processes, they also understand the expertise it takes to achieve the goal at hand. Great leaders can self-assess their knowledge on many given subjects and increase their knowledge as the opportunity arises. Many smart leaders have risen above their colleagues simply by learning more. Being able to translate knowledge to action is another skillset within this realm. Knowledge begets being smart, being smart begets expertise and through expertise, leaders can understand what innovation is necessary to create a new product or tool in the market place. From understanding comes the undertaking of motion to achieve goals.

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One of the terms used frequently of those who are always seeking enlightenment in certain areas is life-long learner. Many times, those who are extremely skilled in specific areas reach a stalemate simply because they refuse to learn more. They refer to the way things used to be and should be, rather than the way things actually are in the present. While reminiscing is good for reflection and historical perspective, leading an organization takes knowing the pulse of the industry. Knowing technologies that are evolving, the shape of the industry in which the business exists, and expecting teams to achieve and act on new knowledge, is a highly desired attribute of a leader.

Two of the pitfalls that leaders can experience in the gain for knowledge are putting all of their bets on one new product and not allowing others knowledge and expertise to override their own. Within the quality of expertise, a leader can rely too much on their own expertise as well. The expertise of a team is greater than the expertise of one person acting alone. Leaders must gather as much information as possible, and team expertise can provide information.

A great artistic comparison is the comic strip *Dilbert*. This comical illustration of the modern small office, complete with grumblings and illusions of productivity, shows how regardless of efforts of main character named Dilbert, to prove himself as a competent engineer and aspiring manager, he fails (Adams, 2020). His manager behaves as a satire; as the antithesis of every good leadership quality that is well known in current theory. In the comic, people who are unknowledgeable, unqualified and ineffective are promoted to management ranks. Meanwhile, several comic strips show Dilbert getting knowledge, reading and learning, earning certificates and trying to better his position. Artist Scott Adams explains how micro- and mis-managed offices exist in satire. While extreme, *Dilbert* is still funny because parts of the experience are true for many people. In a perfect world, a manager should be very engaged and

constantly seeking knowledge in their field of expertise. Sometimes those efforts go unnoticed or unappreciated by further up the chain, however on the lower chain, knowledge can be of real value to employees. The best leaders continue to constantly push pursuit of knowledge, expertise, technological advances and change.

Author David Rendall in his book *The Four Factors of Effective Leadership*, uses the humorous example of his four-year-old daughter, while honest, would not be knowledgeable or experienced enough to drive his vehicle. She lacks a key component of leadership, which is competence (Rendall, 2006). Leaders find their downfall faking competence when it is blatantly obvious they have none. Rendall goes on to explain that competence can be defined in two aspects; technical and interpersonal. As a leader grows into managerial roles, technical competence becomes less important and interpersonal competence more important. However, there is still an aspect of technical competence that should exist. As the interpersonal competence grows, leaders should show authenticity for the general care and concern of their people. Competency, in whichever form though never goes out of style or necessity.

One successful business woman, Muriel Siebert, President of Muriel Siebert and Company on the New York Stock Exchange, exclaims in the book *America's New Women Entrepreneurs* that the stock market is exciting, but requires mental toughness. While the stock market can be volatile, leaders must think clearly, roll with the punches and read a lot. Most of her advice revolves around putting in time for studying, analyzing and assessing risks. These tips are universally true for any person trying to lead others and move towards goals. Studying and analyzing the business where it is and where it should be, then making calculated risks to move the business towards that goal is important in leadership. In the case of Siebert, she started her business from the ground up and now, is the President. If anyone at the company should

know the business top to bottom, it is Siebert. Not all leaders start from the bottom and go up, however, leaders can still learn aspects of all jobs within organizations so that knowledge also comes from a place of personal understanding. By learning from others in their care, leaders can move much higher. Because of her knowledge and ability to learn from others, Siebert was eventually appointed by the governor of New York to regulate all of the banks in the state, which held assets in excess of $500 billion (Harrison, 1986). Siebert may not have known the intricacies of each bank she regulated, but she was able to apply what she knew about her own organizational rise to the top, in this very crucial role. She put her trust in those she had trained and led to take over her personal company, as she took on the role of a regulator. Trust is built by the leader knowing the people who have been hired and the people knowing the leader, and then exchanging expertise to allow change to happen.

Part of being good at leadership is recognizing personal strengths and weaknesses. In the book *Making Sense of Leadership* by Cameron and Green, the authors encourage new and aspiring leaders to be able to recount all of their experiences and talents in order to grow in other roles (Cameron & Green, 2008). There may be times that a particular skillset acquired provides the necessary answer to current problems. This skillset can be a technical one or an interpersonal one. However, a leader should know these experiences intrinsically, and be able to draw upon them situationally.

Recently, the author hired a career development coach and admittedly, knew little about the topic of career development. This position was brand new and grant-funded, so making sure the job was done well was very important for future grants. Even with not knowing much about the functional tasks that the job entailed, it was clear what network of people was needed for someone to do well in the position. Along the way, and without even knowing it, the author was

able to learn a great deal about developing career training materials by mentoring the new

employee. The author was able to reconnect with contacts with whom she had not worked with

in years and found that they had a lot of similar and transferable goals across organizations. By

being curious and open to changing directions as many times as needed and walking hand-in-

hand with the new employee, the author learned valuable skills that have helped her

tremendously. Also, she has made more contacts in the community that will provide tremendous

benefits at a later time in a professionally capacity. It was satisfying to get a complement from

the new employee that she gets to work with the best boss that she has ever had. She also

stressed that this was not because of how much the boss knew, but how eager the boss was to

learn the new required skills along with the new employee. This has allowed the new employee

and the author to keep in touch to communicate about careers and families, even though both

have moved on to other opportunities. There is a lot of truth in the observation that employees

will not care how much you know, until they know how much you care. Care and knowledge are

both important! And the best way to show knowledge, is first to exhibit care for the whole

person as the employee.

Passion

As much as a great leader must know their own thought process, they also must know

their own passions. Great leaders learn to know themselves first. This knowing comes from

doing self-assessments, inventories of talents, training, skill-building, and becoming more self-

aware. Two other attributes that reside within passion are integrity and character. Integrity is

doing what is right even when no one is looking. Character is what is built over many years of

practicing one's integrity. Great leaders practice their integrity over and over in many situations,

where their options may have included a dishonest action. Sometimes, leaders have felt

compelled to be less than truthful to save themselves or the company where they worked. Choosing a less than honest option never ends well and this is why there are so many breaking news stories uncovering the inner workings of failed organizations under poor leadership. Many people in leadership positions will change their attitudes and minds depending on whether they perceive their influence to be limited, however, it is the rare but great leader who will consistently perform within their established character boundaries regardless of the outcome. Character cannot be taught, but the process of character development can be. Therefore the common pitfalls associated with leaders not knowing their passions is the lack of character development. A leader may stop intrinsically seeking their internal compass of right and wrong, as well as their ability to discern purposeful action or mistakes. It is imperative that leaders, regardless of age or background, continue to seek out the skills to build their own character from the inside out.

One of the ten top traits of effective mentors as described by Johnson and Ridley in *The Elements of Mentoring* is exuding warmth (Johnson & Ridley, 2004). While this may sound touchy-feely to a lot of organizational professionals, showing sincerity to people is of dire importance. If we take the idea of exhibiting warmth, it symbolically means to be sincere, to be friendly, and to care about others. Sincerity can be expressed in a number of ways, verbal and nonverbal. Offering a "Good morning" or "How is the family" can be cues to employees that a leader genuinely cares about their day and their life away from work. The opposite of warmth is coldness. Some leaders will hold tighter to their emotions, which can come off as detached and unavailable. The reaction employees can have to coldness is that they will stay guarded, wondering where they stand with their superior and if their performance is satisfactory. Employees may also dread coming to work as they cannot express their authentic selves to the

organization for fear that they will be deemed weak. There are many leaders in the world that

see authenticity as disruptive to the organization and a threat to the image of the business.

However, authenticity is what makes most organizations thrive, as long as it is embodied by all

employees. Leaders must encourage employees to show up as themselves and allow them to

thrive as they are with the talents that they have inside.

One of the breakthroughs into organizational change and leadership came with Daniel

Goleman's groundbreaking book *Emotional Intelligence: Why It Can Matter More Than IQ*. In

this book, Goleman addresses the importance of emotional and social intelligence, especially as

it relates to the workplace (Goleman, 1995). He argues that humans have two minds; the rational

and the emotional. Emotions feel the world and feelings get sent to our rational concrete mind

for how to succeed in survival. In theory, the rational and emotional mind work together so that

neither one overpowers or undermines the other. When a person undergoes a stimulation beyond

that which can be rationalized, they become emotional. Emotions show in the form of laughter,

tears, depression, anxiety, euphoria. While feelings can be managed, there is always a tipping

point. In the study of human interactions and emotional intelligence, a leader would do well to

apply Goleman's findings to their interactions with their employees. If an employee expresses

emotions, a leader should ask: Are these good emotions? Can employees see and express

emotions in this workplace? Can others relate or not relate to the emotions exhibited? Humans

desire connectivity to deepen their relationship to others. If someone is more of a "colder"

supervisor, employees have a hard time connecting with such individuals on a much deeper,

emotional and rational level.

There are many ways to improve one's emotional intelligence and the average person can

be taught to effectively express themselves to their fullest extent. Goleman suggests nonverbal

cues, such as eye contact, nodding while listening, smiling, and showing facial expressions of concern, are all ways to show emotional intelligence (Goleman, 1995). While these actions alone do not mean one is emotionally intelligent, it is what the receiver is looking for in their emotional information inventory that is sent to their rational brain for next steps. At a cerebral level, it is important that facial and body language match the emotional intelligence felt. However, it is important to be sincere in the delivery to the receiver. In other words, people will always eventually see through fake sincerity.

Verbal cues are also crucial to the emotional intelligence of leaders. For example, giving constructive feedback on a task that did not go as well as hoped can go well if the information is delivered in a way that leaves an employee feeling empowered to do better in the future. The most important part of showing verbal emotional intelligence is clear and frequent communication. Great leaders effectively communicate up and down the reporting chain, as well as inside and outside the organization. How a person manages their words is a clear indicator of how much they work at their internal dialogue before speaking. Leaders must resist negative responses and internalizing critical feedback to the point of negative emotions. Leaders must also give feedback and respond with a level head in times of crisis. Employees look to the calm person when things go wrong and these individuals tend to rise through the ranks to become leaders. Goleman suggests that offering a helping hand to someone struggling is more important than verbal constructive criticism any day (Goleman, 1995). Leaders should weigh their ability to remain above the issues as not to be pulled into them, but be close enough to know what is happening and offer help where needed.

Some people have the natural ability to see the good in others. A great leader finds ways and trains their brain to see the good in people, especially their employees. Seeing the good in

people is also a matter of the heart of a leader, because it has nothing to do with the other person, but everything to do with self-awareness. Goleman describes this ability to accept others, even when they fail, as withholding judgmental thoughts (Goleman, 1995). Leaders look favorably at their people, with promise and regard for their potential. What is potential and promise? It is the hope that the person will become her or his best self.

A long-time employee with many years seasoned in the working world, once asked, "what is the most important commodity in a person?" It took some time to think about the response. After a few seconds, this employee replied, without thought, "time." Time is the ultimate estimator of the value a person puts on everything in their life; hobbies, friends, family, work. How people use their time shows what is most important to them. Leaders must utilize their time wisely, spend it well in the workplace by keeping appointments, showing up on time, maintaining work relationships and being present for others. By valuing a leader's own time, other people's time get valued. Leaders understand the importance of meaningful interaction and need to willfully assign time to things that matter most – with people being the top priority. Actions speak louder than words, and devoting time to someone's day begets action. Being dismissive of meaningful interactions, relying too much on big group meetings for core messages, and hurrying communication in passing are all an assault on time that results in lower morale and results. Sincere and caring leaders know the importance of time and how their using it can engage others or turn them off.

Lastly, leading with passion means acting with integrity. In his book, *The Four Factors of Effective Leadership*, Rendall explains that acting with integrity is at best a challenge and at its worst, painful (Rendall, 2006). Why is being true to oneself so hard? One of the principles that often goes unspoken yet used in the business world is "the end justifies the means," which has

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been thoughtlessly modified to "the end justifies the meanness." One of the ways aspiring

leaders can shortchange their learning of integrity is by demanding acceptance of themselves

simply on the basis of their perceived charisma. This way of leading is fatally flawed as it is not

possible to maintain any the false façade for an extended time. In the short term, assuming a

leadership position with guns blazing to achieve an end goal is rewarding. In a high-stakes,

Russian roulette style leadership, while it may get an organization to some quick wins, it is not

sustainable in the long term. Examples such as firing the slacker employee, cutting costs and

jobs, bullying by control, and pitting departments against each other works to jumpstart action,

but it never lasts and does long lasting damage to the organization in the long run. These leaders

rarely stay beyond a singular purpose and are often regarded as the worst supervisor ever hired.

The reason this happens is because there is a complete lack of trust between leadership and

employees. This also leads to an absence of mutual understanding and respect between

coworkers.

Creating an impression of what is not by leaders, compromises integrity as untruths

cannot stay hidden for long and when they come out, they snowball. Doctoring books, covering

up bad behavior and lying your way to the top are eventually sure to be discovered. Slowly, this

type of a leader loses touch with what is really happening, even justifying their behavior for the

sake of the organization. They become a martyr to their own behavior and expect others to

worship their ego. Despite most people recognizing such toxic traits, there still exist leaders who

exhibit unethical behavior. Effective leaders appreciate the core of human needs; the need for

kindness, compassion, empathy, truth and trust. They also freely give to their employees' needs,

establishing a place where everyone can show up as themselves to work towards their best

selves.

Value of Things

Extraordinary leaders know the value of things. Leaders must create and increase the value of the things they produce by establishing the value of the principles put into processes. This assigning of value means that quality is important throughout the entire lifecycle, but also at the end when the product is finished and ready to be sent to the final user. What makes something more valuable than another thing? What principles should guide the production of a thing, and why are some more important than others? If a leader's principles are wrapped into each and every process, it is natural that the final product's quality will be reflective of that. Great leaders establish a pulse of quality standards and practices. If a leader allows shortcuts or quick solutions without much thought to guiding principles, quality will inevitably suffer. One of the common outcomes when a leader doesn't understand the value of things and thoughts is a lack of quality in the outputs that are provided to their customers.

The technology world is always changing, growing, and reestablishing itself among smaller and larger companies. Knowing what part a company plays in the overall field is vital to its survival. Great leaders research competitive products and companies, they seek to find opportunities to collaborate with other organizations to enhance their products and they develop the process to make such enhancements possible. Healthy competition between companies is beneficial for everyone, including the consumer. Healthy means that competition is based on ethical principles and standards. Leadership pitfalls also occur when these principles and standards are not adhered to by employees, either willfully or because of lack of training. Either way, if faced with this situation, great leaders take the opportunity to train or otherwise redirect employees towards a more principled approach.

A great example of a leader using creative problem solving and creating an entire market is Barbara Krouse. Krouse is known in the food production industry as the "Mother of Lean Cuisine" in the book *America's New Women Entrepreneurs* (Harrison, 1986). As a working mother and wife since 1969, Krouse realized that she could not work full time, have a family, and prepare dinner every night. She thought a lot about how to product a delicious and nutritious meal with the push of a button. This brought the birth of Lean Cuisine, a single-entrée meal that is more healthy than traditional fast food with lower calories, which is a definite plus for families. With her invention, Krouse rose to the rank of Vice President of Product Development at Stouffer Foods Corporation. She created product lines such as the French Bread Pizza, the first pizza to be commercially made for quick cooking at home. She describes her success in the very competitive food production business as having self-confidence in her abilities to be creative and competitive. She also believed in taking risks based on knowledge of what exists in the market, and trusting herself enough to know that failure is a stepping stone towards success. Krouse also had a healthy appetite for free enterprise, proclaiming that by having freedom to produce freely is fun and creative. Krouse was a trailblazer in the world of quick meals, and her work has supported working, hungry families for decades. She learned the value of things, the value of ideas, free enterprise, working hard, and failing until succeeding. By working her way to the top of product development, she was able to hone in on the processes within the food production industry that needed to be adjusted to make single-entrée meals a reality.

William Ralph Inge once quoted, "the wise man is he who knows the relative value of things" (Inge, 1927, p. 255). Inge was a priest, author and nominee of the Nobel Prize in literature three times. He spent much of his time contemplating how society should value things. As an educator, he believed the purpose of learning, of education, is not knowledge but the

ability to assign value (Austen, 2014). Because of this strong belief, he lectured on how great

thinkers could assign value and do so with purpose. Inge lived during England's second

Industrial Revolution (late 1800's, early 1900's) and saw first-hand the progress to a more

modern society based on the value of things. While he was not against things per se, he was very

clear that the smartest people see value in things. Inge's words still echo in today's society

because smart people still see value in things.

A great leader can assess their business and determine what is and what is not of value.

They can study, learn and create business principles and products based on value. A great leader

will change and adapt over time as well. What worked ten years ago in the marketplace may not

work today; the current business operations may not be what works tomorrow. There should

always be value, however, and a great leader challenges quality so that products meet the

greatest need.

Quality is also important in assigning value. During the author's initial career in drug

manufacturing, a realization came about that quality in drug production at each stage of the

lifecycle of the production process through several checks and balances enables every person in

the facility to have ownership of the product and the actions that it is meant to achieve for the

users of the product. Drug companies believe that quality is baked in, so that the overall product

is of the highest standard and is worth its value. Extending the importance of assigning value to

output provided to customers, the author in her later career in higher education has strived to

ensure that every student, company, business, agency and entity that interacts with the college

receives an expected outcome with a high level of customer service. Higher education

institutions believe that the quality of the students is the number one indicator of quality teaching

and learning. There are some similar themes in both fields. Key words relevant to value in both

are: excellence, high standards, and quality. Value for the two fields is however measured very differently, as one product is medicine and the other is human. For this reason, as a leader one must understand the different values assigned to different things. People and products must be treated differently to assign them their highest value. Products require precision of ingredients, and people require great leadership to achieve excellence, high standards and quality.

After researching more into the information technology sector leadership, there is a lot to be learned about how top managerial positions should engage in their businesses. In his book, *Business @ the Speed of Thought*, Bill Gates shares how CEOs should be engaged in the small information movements as they are in their higher-level business matters (Gates, III, 1999). Gates explains that many times CEOs steer away from the data and focus a lot of their time on corporate processes and executive functions. However, he believes that they should have a solid understanding of all processing systems so they can better understand the trajectory of new technology. In Gates's opinion, top leadership should focus on a few points. First, leadership should see information and technology as a strategic resource where employees can creatively solve current and future problems. Secondly, leadership should know enough about their products to ask difficult questions that create meaningful dialogue with middle management. There should be some degree of back-and-forth about technology capability and what the future needs. Lastly, leadership should consult with their highly technical positions, such as a chief information officer in decision-making about company strategy. The ground-level technical knowledge will help move ideas quicker to fruition and also build trust among those doing most of the data heavy lifting.

In most organizations, the focus at the top is always strategy, process improvement and profit. Many people in highly skilled and highly technical fields within an organization feel at

times disregarded, or worse abused and disrespected. While leaders have the best intentions and try to drive the company into the black, they may neglect the technology happening behind the curtains. Engaging those in technical positions within an organization can help ensure that the knowledge of what is really happening is surfacing and the strategic plans are within scope of current talent, or there is a plan to address future needs by hiring additional skilled people. It is great to have a vision for the future, but if a leader cannot bring people along who can achieve that vision, the results will be disastrous. Information technology is a huge cost for any organization, and it will always be that way moving forward. Equipment, software, training, networking, and customer support take huge amounts of time and skilled talent. The leader of any organization that requires information technology will have a huge budget to approve year after year, therefore it is imperative for them to understand why it is huge and how to navigate expenditures. Also, by being involved in high level meetings, information technology can understand the budgetary constraints that exist company-wide and provide reasonable and timely appointed budget requests. Along the lines of budgetary appointments to information technology projects, organizations should strive to have at least a few best-in-class applications. An example that Gates provides is a specific software that an organization can purchase at specific times or on a continual basis to read and rate their technology infrastructure (Gates, III, 1999). This software, called IT Advisor, can assess their current capabilities and pinpoint areas that need improvement. Maybe the organization has not had a significant upgrade in data drops that provide strong Wi-Fi connection in many years. Newer technologies require faster transmission of data, and therefore new data drops are important to achieve quicker access. Using some sort of tracking mechanism will also help leadership talk about technology clearly with information

technology professionals, specifically utilizing performance charts and alerts which help translate complex topics into layman's terms.

The most important aspect in understanding and assigning value is the ability of a team to learn and move into action. Gates explains that managing knowledge and being aware of important information to share is critical to achieve objectives (Gates, III, 1999). Institutional intelligence, otherwise known as Corporate IQ, is how fast knowledge can be shared vertically and horizontally within an organization so that it can change or enhance the business. The concept of Corporate IQ is to gauge how freely employees feel that they can share information and build on each other's ideas around an objective. According to Gates, employees should not feel disconnected from their leadership in information sharing.

The success of any organization is also tied into the speed at which collaboration occurs. An example of this would be the very manual process of hand-washing a car. Let's say Sally wants to wash her car at home. She would need to acquire a few items; bucket, water (hose), brush, shampoo. She would need to pre-wet the car, mix water and shampoo in a bucket, dunk the brush into the bucket, then scrub the car carefully and follow up with a good post-rinse. An average amount of time it takes to do this for a mid-sized four-door car is estimated to be about an hour. If Sally were to decide that this process takes too long and she had other errands to run for the day, she would stop by the local car wash for a quick clean. Paying a few dollars and going through the car wash tunnel machine, she would be finished in about ten minutes. This convenience allows Sally time to do the errands she needs to do in less time. She has discovered more efficient options and now has the opportunity to use her time in other ways. If knowledge of time-savings has been granted, then she can determine if the decision to use the car wash is necessary or not for her life. The same is true with knowledge within an organization. If people

know what knowledge is available and is shared among others in various departments and positions, the process to achieve the final objective can be completed faster.

Knowing products, processes and people well is essential for the leader. Also, allowing all of those things to cross-pollinate in an organization will help the organization achieve their goals faster and with more invested interest. Leaders have to engage employees in the end-goal and along the way ensure that their ideas are heard, and the best ideas are applied wherever possible. Strategic efforts should be made by leadership to integrate departments to solve problems and accomplish tasks. Power comes from sharing knowledge and companies should reward departments and people that are able to do so effectively.

Vision

A trait that great leaders are known for in the technology world is their vision. Visionary leaders capture the minds and hearts of their employees, and also the world at large. Selling a vision requires knowledge and passion for one's products, and visionary leaders must also know where they and the company are going. Being a visionary requires that a person see beyond the past and the present, and look to the future. Visionary leaders are almost always focused on outcomes and less on how the outcomes are achieved. This is not to say that how outcomes are achieved, through the deployment of quality practices is not important to them. It simply means that they set their focus on the end goal and are agile during times of uncertainty. Many companies actually put the term agile in their job postings because they have learned that employees who are more agile embrace uncertainty and more easily navigate the inevitable ebb and flow of business. Great leaders are masters of agility. They can embrace the unknown, the

uncertainty of the future, and continue to inspire those around them to trust their leadership through hard and good times.

The other aspect of being visionary is to accept mistakes as a learning lesson and not a death sentence. Great leaders are able to tolerate, and oftentimes encourage mistakes to move an idea forward. This leadership aspect plays into the ability to be decisive, because fear of the unknown oftentimes breeds indecision. Common pitfalls associated with a lack of vision include an intolerance to mistakes and indecision. If a leader is too focused on the moment, too absorbed in the day-to-day operations and issues of the hour, they will miss the important decisions of directing the team. They can become stuck in unhealthy response patterns because things have always been done a certain way and eventually lead their team into extinction. While some old ways are the best ways, like making a homemade chocolate cake from scratch, technology leaders have to embrace change, pushing the boundaries of what is possible to survive and thrive.

The role of a visionary leader is to motivate others about the future. By focusing on buy-in of their employees, visionary leaders are able to engage employees to create a better reality. In the book, *Making Sense of Leadership* by Cameron and Green, one of the major five types of leaders is the Visionary Motivator (Cameron & Green, 2008). More like motivational coaches, these types of leaders inspire purpose and create an energy shift that is infectious. The authors surveyed leaders regarding their view on the most important qualities that a leader can possess, and by far, being a visionary leader is the most widely sought after and attractive quality to harness. Around a quarter of all leaders possess this trait and about a half of all leaders see this as the most important attribute to determine success. However, one downside to anchoring success to a vision is to determine how to measure it. There are not many metrics or key performance indicators that can be easily utilized to measure the extent of a leader's visionary

reach. Simply asking the question, "how visionary is this person?" is not measurable. In the same vein, leaders cannot be easily trained into becoming visionaries. Leaders who have visionary qualities cannot well articulate how they can see the future, nor how they can quantify their intuition towards new ideas.

Another quality that visionaries exude is an element of sales and marketing. They have the ability to sell the idea to internal employees and external partners or clients. These leaders can sell something that has yet to be formulated into a physical and factual format. By this same trait, visionary leaders have the ability to compel share-holders to take a risk. For most businesses, risk has to be weighed and calculated against potential wins and losses. A great example of a visionary leader is Richard Branson, Founder of Virgin Group. Some key traits that he observes that fit the visionary profile is that he is energetic, full of big ideas and has a strong track record of calculated risk that has paid big gains (Cameron & Green, 2008). Similarly, he also relentlessly focuses on the next big idea, with little regard to previous mistakes or negative outcomes. While these traits do beg to question if mistakes are ever learned from as to not repeat them, there is not much time spent on dwelling with those failures by visionaries. They kick-start ideas, bring people along for the ride, and once things have a steady rhythm, they hand-off their project to seek out the next one.

The downside to being a visionary motivator is sheer exhaustion. Imagine having all of these ideas and futuristic views and having to make sense of these to more data-driven and conservative colleagues. Also, constantly moving forward by the leader means there will be times of stagnation from other team members. The team may comment, "but what about the details on this last project," "what should be done about this other person who does not want to pull their weight," and even "I do not understand why this is such as a good idea." Cynicism by

team members, stagnation due to project holds and exhaustion of constantly living in the future can be the downfall of a visionary leader. Organizationally, visionary leaders have to focus on matching vision with strategic goals to win over teams and align with influencers who have specific needs or agendas to make sure they feel heard. Cameron and Green suggest that the visionary leader must always seek to reframe any negative aspects to the project or problems that arise, as opportunities for learning and growth (Cameron & Green, 2008). Probably the best skills that visionary leaders can develop and work on is their communication skills.

One of the foremost communicators in modern history was Ronald Reagan. In his book, *Morning in America: How Ronald Reagan Invented the 1980s*, Gil Troy, referencing Joseph Wood's interview, summarized:

Reagan is considered by most Americans to be the most popular figure in American politics in our lifetime. 'The Great Communicator' was not only great at telling one-liners, spinning tales, and charmingly timing his perfectly punched phrases. He had great ideas behind his finely crafted words… He was a great man of letters as well as public speaking… He was an optimistic soul. He made Americans feel optimistically about the future, as well as the present. (Troy, 2005; Cameron & Green, 2008, p. 57)

Regan responded to his own identity being labeled as visionary:

I won a nickname, 'The Great Communicator,' but I never thought it was my style or the words I used that made a difference: it was the content. I wasn't a great communicator, but I communicated great things, and they didn't spring full bloom from my brow, they came from the heart of a great nation, from our experience, our wisdom, and our belief in principles that have guided us for two centuries. They called it the Reagan revolution.

Well, I'll accept that, but for me it always seemed more like the great rediscovery, a

rediscovery of our values and our common sense. (Troy, 2005; Cameron & Green, 2008,

p.57)

While the former president may have been a great communicator, or a communicator of great

things, his greatest attribute was helping citizens of the United States see, through his voice, how

the country was great and offered promise for a bright future.

Another great example of visionary leadership is the inventor and entrepreneur, James

Dyson. After developing over five thousand prototypes, the Dyson vacuum, a bagless cleaner,

was made (Davidson, 1999). Dyson, the inventor, was very deliberate and tenacious about

getting the design right, making him more calculating than most visionary leaders. However,

listening to his speeches regarding the design process and the pride in the product line, it is

certain that his predominant trait that brings him inevitable success is his vision. He has been

quoted, when questioned about what makes Dyson, the business, so successful:

The key to success is failure, I would guess. Not other people's failure, but how you

respond to failure yourself. Everyone gets knocked back, no one rises smoothly to the

top without hindrance. The ones who succeed are those who say, right, let's give it

another go. Who cares what others think? I believe in what I am doing. I will never give

up. Success is made of 99 per cent failure. You galvanize yourself and you keep going,

as a full optimist… Hope is the most important element in success… I learned that the

moment you want to slow down is the moment you should accelerate. In long distance

running, you go through a pain barrio. The same thing happens in research and

development projects, or in starting any business. There's a terrible moment when failure

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is staring you in the face. And actually if you persevere a bit longer you'll start to climb out of it. (Davidson, 1999, para. 2)

Dyson's words are such an inspiration to leaders trying and failing, because most people will not see the risk-to-reward strongly or acutely enough through to pay-off. Engaging with others into the creation and marketing of products is how visionary leaders move, and inevitably succeed.

Another way to define vision is inspiration. Leadership is understood to be multifaceted, requiring a host of traits to be effective, but none as inspiring as vision. Authentic people, ones that are driven to perform based off of a personal mission and alignment to a higher goal tend to steal the spotlight. In his book, *Visioneering*, Andy Stanley summarizes that everyone will end up somewhere and some people end up there on purpose (Stanley, 1999). While many employees have work-focused goals and aspire to check the box next to tasks that need completing, it is a few that accept a higher purpose, a higher calling in their work.

Ambiguity has no place in leadership – a leader must know where they are going. In his book *Good to Great*, Jim Collins offers a story about a hedgehog and a fox (Collins, 2001). The fox, cunning and sly, is the predator, trying to kill and eat the spiky prey, the hedgehog. No matter how hard the fox tries jumping out of bushes, ambushing from heights and sneaking up from around brush, the hedgehog is a formidable opponent. Very simply, the hedgehog does what it knows best to do; roll up into a sharp spiny ball. Collins believes that everyone needs a Hedgehog Concept that will provide a singular direction, something that prevents distraction and deviation from the goal. Leaders must challenge themselves to set goals that inspire and motivate, and whatever the temptation to deviate or become muddled with confusion, ignore or fight with the mechanism they know best.

What is an aspiring leader passionate about? What abilities come natural to them? What is a career that can make them money? Finding a strong purpose or goal to achieve for visionary leaders is accomplished when these three align. Figure 1 demonstrates alignment of attributes, with the star representing a career that brings all three together.

Figure 1: Passion, Money, Skills Alignments

To achieve the star, skills and abilities need to be learned. Getting higher education or specific trade skillsets is a great way to improve the "skills, abilities and talents" bubble. Leaders should seek out training that fits their abilities and natural gifts. Additionally, research is needed to understand what careers in certain fields pay well or provide the money needed to support the lifestyle desired, thus improving the "careers that pay money" bubble. Some people choose fields that pay less simply because they do not need an extravagant lifestyle, which is fine. However, going into careers hoping to make a certain amount of money and finding out that there is no way to advance, leads to frustration and frequent job changes. Finally, there should be a passion for what work is done, the "passion" bubble. Many times, it is a factor that entered a person's life early on; maybe they suffered from a debilitating illness as a child and as an adult they decide to pursue a career in the medical field to help treat that illness. The author chose to

work in secondary education at a community college because as a child she would go with her mother to nursing classes at night.

The author believes her mother was a saint; a natural helping hand to a lot of people in her hometown. She was also very determined; she worked three part-time jobs as a single mother of two young girls, taking a full load of night classes at the local community college to earn a nursing degree. There were times when the author was 8 years old and her sister was 4 years old when they had to ride along with their mother many nights because she could not find affordable childcare. One evening the author, her sister and mother were pulling into the college parking lot, and the car died in the middle of the intersection. Her mother sat the author in the driver's seat and shifted the car in neutral. Then her mother pushed the car into the parking lot while the author steered it. She managed to get to class five minutes late, while the author and her sister sat outside the door in chairs that the instructor would provide on nights they tagged along. Her mother finished her nursing degree and then transferred to earn her bachelor's degree in nursing and additional master's degree certifications. No longer a part time hotel attendant, administrative receptionist and house cleaner, she found something that drove her passion to do better; she wanted better for her girls. She is now a successful director of a neuro-medical, long-term care facility. Her mother, even as successful as she is now, will still get in the car and drive to sick and elderly neighbors' homes to check their temperature and blood pressure. Her skillset is well-developed, she truly loves helping people feel better, and she found a career that makes plenty of money to support herself. She has found passion in her career and never forgets the community that helped her when she was struggling. The author believes her mother found her star.

If one bubble is missing in the diagram, then inevitably there will be issues. In order to be a visionary leader, one must make sure that they do not let one of the bubbles outweigh the others. For example, being extremely passionate about decorating may excite someone, but if there is no market for interior design where they choose to live, or if it does not pay well, there might not be any opportunity to make that their sole source of income, and in such a case one should simply keep it as a hobby. As another example, someone may have been trained to be a middle school teacher and have the degree and skillset to do the job. However, if dealing with kids and their parents, writing lesson plans, and grading papers emotionally drains them, then they do not have a passion for that career. Someone may do it for a while, but possibly feel as though they have wasted their time on a career they hated. It is therefore important to find a passionate career, using natural and trained talents to make a sustainable living. If aspiring leaders find a career like that, then it can set them on fire to become a truly great leader.

As a visionary leader, one must also be willing to change, assess priorities regularly and realign as needed to achieve the goals. In the book, *The 360 degree Leader*, John Maxwell provides insight on how to create structurally sound vision and transfer it to others. He asserts that vision must be clear so that employees are clear (Maxwell, 2005). In order to bring others along on the vision, the main priority should be crystal clear. With visionary leaders, one of the pitfalls is lack of communication to their employees. The best way to handle this issue according to Maxwell, is to be specific about what employees need to know, then keep communicating it until it sticks (Maxwell, 2005). While vision tells people the end goal, they still need to understand why they are going there in the first place. Creating vision in goals can be done in a number of ways. Maxwell suggests to create a challenge among the team to solve a problem together, use stories of victory to inspire them to achieve that goal, and create a sense of passion

around their goal where accomplishments are celebrated. By continually becoming a visionary leader in this way, it will later be easier to identify those employees who embrace challenges and perform well when provided a clear path. They are the next mentees who are well on their way to leadership positions.

The ultimate goal to become a visionary leader is to inspire employees to achieve greatness. They must assert passion in what they choose to do and share their vision wholeheartedly with others. As David Rendall suggests, "leadership is not a position… it is the process of inspiring a shared vision" (Rendall, 2006, p. 87). Create the personal mission, communicate it effectively with others, and provide a clear path forward. Achieving the goal will be inevitable.

In summary, knowing others, knowing oneself, and knowing the products – great leaders are exemplary employees in their own right, but they are not immune to personal flaws, weaknesses or moments of failure. Great leaders experience major losses at times, but the ability to continue to push forward regardless of setbacks will always distinguish those who lead from the rest. Assigning value, establishing norms of quality and creating a sense of urgency towards meeting expectations are operational guidelines of the best leaders. Finally, establishing attainable goals for employees and reminding them of the rewards at the end, is what great leaders do.

Research Questions

The literature review enabled the creation of the following three questions from the perspective of modern leadership:

1) *What quality attributes are most often associated with good leadership?*

a. Attributes researched had to be associated to good leadership theory.

b. Attributes identified for this question were: teamwork, expertise, passion, production, and vision.

2) *What qualities have helped women achieve success in leadership roles?*

a. Female leaders researched had to have connection to technology and hold significant roles in leadership.

b. There must be reputable sources for information on each woman to move forward in development of their biographical and leadership profile.

3) *Which attributes are most important in a leader?*

a. Assessment of general leadership attributes and female leadership attributes.

b. Identification of common and reoccurring attributes to create a path for future leaders.

CHAPTER 3: RESEARCH METHODOLOGY

Qualitative Research

Qualitative methodology was primarily used to assess common themes in modern leadership theory and attributes of female leaders. There were no surveys conducted of the identified sources. Literature was studied and evaluated, and qualitative information was collected in the form of quotes that were written or heard during interviews. As information was gathered, it was assessed for its major themes corresponding to general leadership characteristics and also noted where new themes followed a unique feministic perspective. Findings were categorized into five major categories to include teamwork, expertise, passion, production, and vision. Supporting documentation was collected and is cited throughout this document. New themes that were found in unique female experiences were categorized. Literature was analyzed to determine common themes linking feminine perspectives. Each of the twelve women were evaluated using their own assessment of strong female leadership qualities, ranking them based on their most predominant to least predominant qualities. Based on this, a summary of the most notable qualities was derived.

Assigning Quantitative Scores

Information derived through the research of general leadership traits and successful female leadership traits was analyzed quantitatively and qualitatively, in a mixed methods approach. A Likert scale assignment was given to each female leader based on the qualities researched (Likert, 1932). Mixed methods approach for evaluation is the most effective technique to use because personal experiences of leaders are not easily measured by quantitative methods alone. Explaining the full scope of female leadership in technology requires a holistic

assessment of the individual in their own words, along with quantitative organizational reporting data. A Likert scale was used because it can measure statements of agreement, with variation (Likert, 1932). A Likert scale "assumes that the strength/intensity of an attitude is linear, i.e. on a continuum from strongly agree to strongly disagree and makes the assumption that attitudes can be measured (McLeod, 2019, para. 6)." Each female leader was evaluated on their representation of general and female-specific leadership qualities. Agreement scaling was used, including *Strongly Disagree, Disagree, Undecided, Agree, Strongly Agree*. The scale correlated consecutively to the agreements; *1, 2, 3, 4, and 5 respectively*. At the beginning of each female evaluation, the numerical score is provided based on a Likert scale (1-5) in a simple chart.

A strength of using Likert scales is that it does not have a right or wrong, yes or no option. It allows for various degrees of opinion, including a lack of opinion (McLeod, 2019). Once opinion was quantified, assessment was made on characteristics that were found to be most frequent and of relative importance. Their traits were documented and assigned a rating. A drawback of the research can be the use of the author's own bias and personal opinion.

Data Collection

The data collected directly from research was qualitative assessments of leadership through literature. Numerical assessments within the findings are the evaluation of written works, speeches and interviews, that have been collected and interpreted. The information presented has been used to provide some qualitative and quantitative comparison for leading female leadership traits but is not meant to be used as an absolute measure to judge any specific individual. The distribution of agreement has been presented as a bar chart for easy interpretation.

For data collection activities, Excel was used to create columns for leadership attributes and a column with the name of the leader evaluated. As all data is in the public domain, no attempt has been made to hide the identity of the subjects studied. A number between 1 to 5 was given that expressed the quantitative finding for the strength of a leader for a specific leadership quality. Each leader was evaluated in separate sections, along with their own biographies, and numerically assessed based on findings. Therefore, the reason for assigning a particular number can be directly matched to the inclusion or exclusion of one or more attributes.

After data was collected for each leader, results were extrapolated to include, Summary of Attribute Importance (SUM function), Average Relative Importance (AVG function), Mode (repeating occurrences function), and Standard Deviation (STD function). This information was useful in determining common qualities and reoccurrence of these qualities in terms of importance to the leader. A graph was constructed to visually show the occurrence of leadership traits in the female leaders.

Challenges

The two most challenging aspects to this type of research is the collection of relevant sources that highlight leadership in a way that is meaningful and constructive to overall theory, and the author's judgement of the quantitative scoring from qualitative factors. It was difficult to pick top leadership attributes as there are many attributes that embody good leadership. Also, to assess leadership in the context of available research, one there are limitations to the past forty years. While that may seem to be a long time of available context, leadership values can change over time. For example, the reliance on technology for leadership practice is a relatively new modality. Additionally, female leaders lead a small percentage of organizations compared to

male leaders, and they do not always self-identify in the public through books or personal reflections. Hence, extra effort was expended in finding the right commentary that supported the theories of leadership attributes. Additionally, inference on someone's strong leadership qualities could be interpreted incorrectly, depending on the context in which the individual was referring or thinking of when they wrote or spoke. The purpose of this thesis is to rely on what is available in society, through written and spoken interviews, on these leaders in order to extrapolate meaningful theory in the realm of leadership.

CHAPTER 4: FINDINGS

Female Leadership Assessment

Through evaluation of female leadership theory, six attributes were discovered. In the sections

that follow, these attributes are discussed along with references that support findings of why

these are good leadership qualities for women to possess in modern society. They are:

1) Empathy

2) Understanding of Complex Gender Roles, Non-Traditional Roles

3) Authenticity

4) Ambition and Resilience

5) Personal Experience or Tragedy Changes Career Trajectory

6) Overcoming Education and Experience Bias

In order to properly categorize materials, Table 2 was created that organized key words

and phrases for alignment to attributes.

Table 2: *Female Leadership Attributes Explanation Table*

Empathy	Complex Gender Roles, Non-Traditional	Authenticity	Ambition & Resilience	Personal Experience Changes Career	Overcoming Bias
Empathy for others (ex: employees, patients, customers)	Understanding of complex gender roles, non-traditional roles	Valuing authenticity over perfection	Ambition and drive despite negative reactions, resilience	Personal experiences and tragedies change career trajectories	Overcome education and experience bias
Empathy for self	Assigning non-traditional roles to their partners	Focused on attaining their best self	Tough decisions, pushback from others, professional setbacks	Personnel connection to the business	Feeling not good enough in education or experience

The focus for evaluation was mainly technology-driven organizations, where females hold top leadership positions, such as Chief Executive Officer, Chief Operations Officer, and similar. While many organizations have traditional titles, some more recent organizations may diversify their job titles and descriptions depending on the needs of that business sector. A brief biography is presented, followed by their unique styles of leadership. There is context given to females rising through the ranks at organizations and how that journey has impacted their view of leadership. Female leadership is examined through traditional and non-traditional experiences to contextualize the expectations for gender roles that prevail in society. Where appropriate, there will also be cultural perspectives granted that journeys the emergence of these leaders in society and the response to their leadership. Their feminine voice is included as direct quotes throughout this document to better provide context and tone.

Melinda Gates

Gates was born in 1964, a time of great transformation in the United States for many women (Biography.com, 2018). She was able to experience the beginning of the liberation of traditional gender roles in society. While women had always worked either inside or outside of the home, technology companies had yet to surface in modern society as viable sources of income. As Gates grew up and earned degrees in economics and business, she was influenced most by her parents; one a homemaker and the other an engineer. Through her connections and attending trade shows, she met her now famous husband, Bill Gates. Thus started an empire of what was to become Microsoft. While Bill Gates was famous in his own right, the actions that Melinda Gates took throughout her career show her triumph through major projects, failures of major projects and directional shift to focus on family and charitable contributions. Gates herself was particularly drawn to engineering and economics, as well as the early computer technology.

She led the creation of major software platforms, including the very software with which this paper is being written, Microsoft Word. Mid-career, she was married and decided to focus on parenting her and Bill's children. For a time, there was some reevaluation of work-life balance, according to her own reflection. In 2000, alongside her husband, Gates co-founded the Bill & Melinda Gates Foundation, which twenty years later, today stands as the largest private foundation in the world. In 2016, Gates started a separate foundation that focuses on the needs of women and families around the world called Pivotal Ventures. In 2019, Gates authored a book titled *The Moment of Lift: How Empowering Women Changes the World,* which has been referenced by many feminist movements across the world. Her personal beliefs on the subject of gender equity across technology organizations are that "every company needs technology, and yet we're graduating fewer women technologists. That is not good for society. We have to change it (Leonhardt, 2016, para. 3)." Gates is helping lead that change by starting new initiatives in the fight for diversity and equality among minorities and women in technology companies.

Gates has uniquely positioned herself and her foundations, to increase the diversity among hiring practices within technology, as well as working alongside universities and colleges to graduate more women technologists. In the *Gates Annual Letter* on behalf of the Gates Foundation in 2016, Gates addressed the idea of fair earnings for women in the technology sector, saying women should "spend more time doing paid work, starting businesses, or otherwise contributing to the economic well-being of societies around the world. The fact that they can't, holds their families and communities back (Gates & Gates, 2016, sect. 2)."

There are a few predominant qualities that Gates exhibits that correlate to examination of leadership as discussed in Chapter 1. The first strong leadership quality that Gates has is

knowing where she is going, or in other words being visionary. By reading much of Gates' work throughout multiple interviews and books, she often reiterates that by not setting an agenda, someone else will inevitably fill the void with their agenda (Gates M. , 2019). What is interesting about this perspective is that it seems as though Gates was conditioned early to be the receiver of things, to do rather than the author of what needs to be done. Typically, leaders follow a schedule of appointments either by phone, computer or paper calendar. There is usually a morning, afternoon and evening routine that helps them stay on target with meeting personal and professional goals and duties. However, there was a point where Gates, like many leaders, felt as though the calendar drove her goals and not the other way around. This can be seen and felt inside oneself as the notion of being busy (Gates & Gates, 2016). However, the change in perspective and competing priorities helped Gates to see that having a full calendar is not the problem, but allowing it to be full of things that are superfluous or busy helps no one.

The second quality trait that Gates exhibits is knowing others, or knowing how to empower others through teamwork. She has a unique insight into what makes teams work and why they fail. She is quoted in *Moment of Lift*:

> Empathy allows for listening, and listening leads to understanding. That's how we gain a common base of knowledge. When people can't agree, it's often because there is no empathy, no sense of shared experience. If you feel what others feel, you're more likely to see what they see. Then you can understand one another. Then you can move to the honest and respectful exchange of ideas that is the mark of a successful partnership. That's the source of progress. (Gates M. , 2019, p. 173)

The attribute that makes teams work is empathy for each other. Sullivan and Nomura, authors of *The Laws of Lifetime Growth*, suggest that through cooperation and working within productive teams brings about a higher level of achievement than going about it alone (Sullivan & Nomura, 2016). A pitfall to cooperation is the need for status. If someone perceives their status may be in jeopardy and they are not fully developed in their teamwork abilities, they will seize moments to take credit, push blame and even develop a superiority complex. The problem with status is that leaders do rise in status as they perform well.

Gates offers up a great way to make sure that the status does not get too out of hand, suggesting that those in power concede to do more listening (Gates M. , 2019). By listening for the contributions of others, leaders can make their followers feel heard. Creating the space where all team members can show up as their most authentic selves with honesty and empathy, will also create the sense of comradery that is needed to push goals forward.

Another personal trait that Gates shows is her ability to start difficult conversations and continue them until cooperation is built. Many leaders find disagreements to be paralyzing to production. As Sullivan and Nomura suggest however, cooperation among people starts with conversations (Sullivan & Nomura, 2016). Leaders have to be willing to have tough conversations that are intelligent and open-ended, leaving others feeling listened to and respected. In *Moment of Lift*, Gates believes that we have to open up our heart to others, putting away the need for power (Gates M. , 2019). By giving up the need to be right, others can be heard. The way to destigmatize any issue is to start the conversation around it so that the breakthrough can occur and work can begin.

Gates possesses many notable leadership questions, with two being the most poignant; knowing where she is going, also described as vision, and knowing and trusting others as a part of team. The diversity of her work in economics, information technology, humanitarianism and women's rights could not have been accomplished without vision and teamwork. While these qualities are exemplified in Gates, they are not novel to the context and condition of leadership.

Few female leaders have had as much impact on hiring practices in the 21st century as Melinda Gates. In addition to having strong vision and ability to cooperate in teams, Gates seeks out opportunities to challenge traditional gender roles for women. In her book, the *Moment of Lift*, Gates studies the relationships women have had historically with paid and fair work (Gates M. , 2019). In one of the chapters, Gates discusses her own private experience with gender inequality and decision to stay home with her children. By having that personal experience at the highest point in her career, it helped shape her worldview on how unequal work expectations exist in the majority of the world. One tactic that is used in many corporate environments is the shaming that occurs against women who decide to have children or not to have children. She offers the quote, "shaming women for their sexuality is a standard tactic for drowning out the voices of women, who want to decide whether and when to have children" (Gates M. , 2019, p. 68). Women in the workplace are often degraded for their choice to have kids with sayings such as "having a baby ruins careers" or "not having a child makes someone not relevant to others that do." Gates challenges the stigma in a conversationalist style that depicts real issues that exist where women's work is not calculable, and not payable. She believes that the entire workplace ecosystem is not conducive to working families, stating that, "today in the US, we're sending our daughters into a workplace that was designed for our dads—set up on the assumption that employees had partners who would stay home to do the unpaid work..." (Gates M. , 2019, p.

234). In so many families, every adult in the house works. She argues that women come home and work their second job of cleaning, cooking, chores, and children. There is no paid time off from that standpoint.

From Gates' perspective, the ultimate goal of men and women at home and at work is partnership. She explains her viewpoint here:

> I've never held the view that women are better than men, or that the best way to improve the world is for women to gain more power than men. I think male dominance is harmful to society because any dominance is harmful: It means society is governed by a false hierarchy where power and opportunity are awarded according to gender, age, wealth, and privilege—not according to skill, effort, talent, or accomplishments. When a culture of dominance is broken, it activates power in all of us. So the goal for me is not the rise of women and the fall of man. It is the rise of both women and men from a struggle for dominance to a state of partnership. (Gates M. , 2019, p. 150)

Also, within *Moment of Lift*, Gates provides understanding of traditional gender roles during a time in the United States where many wives worked at home with their husbands on farms:

> For years, when economists assessed the productivity of a family farm, they measured the hours of those who worked on the farm, but they didn't count the hours of the women whose cooking and cleaning and caregiving allowed the farmworkers to be productive. Even very sophisticated analysts missed this work for years. They either didn't see it at all or they dismissed its importance, reasoning that this is just the way the world works -- women have this additional burden, like childbearing. (Gates M. , 2019, p. 122)

By studying hours spent by women on farms helping with the actual farm work, household chores and managing child-related responsibilities (and in many cases very large number of children), the disparity in women's pay grows larger. Farmhands were given pay, but wives were not for doing the same work.

Marilyn Waring, elected to New Zealand Parliament in 1975 was one of the first people to study women's work. She spent years studying the unpaid work of women around the world, and determined in her book, *If Women Counted: A New Feminist Economics* in 1988, that change was necessary (Waring, 1990). Through her work, she tried to influence significant changes in United Nations' wage laws with no effect. However, the research had been done and people were becoming more aware of gender inequality.

After Waring's book was published, economist Diane Elson created a three-part framework to begin nudging the needle towards equality (Elson, 2017). Gates references in the *Gates Annual Letter* in 2016:

1) *Recognize* that unpaid work is being done. That's why we need to get governments to count the hours women spend in unpaid work.
2) *Reduce* the number of hours that unpaid work takes, using technologies like cookstoves or washing machines or improved breast pumps.
3) *Redistribute* the work we can't reduce, so that men and women share it more equitably. (Gates & Gates, 2016, sect. 2)

Gates is continuing the work started by Waring and framed by Elson, by recognizing the efforts of women, finding way to reduce the unpaid work that occurs and redistributing the work

through partnerships. Gates spends much of her time in underdeveloped countries and with women who bear most of the unpaid work burden in the world.

Where some leadership traits are predominately accepted among all leaders across technology firms, Gates points out some that speak directly to the female leadership experience. According to her, women tend to struggle with the idea of perfectionism and the need to show up to work as the best version of themselves to be accepted. Gates defines perfectionism as "the effort to compensate for feelings of inferiority by being flawless… I should know" (Gates M. , 2019, p. 231). Gates references her feelings and suggests that one's own self perpetuates they should show up flawless. She suggests that women should strive to show up more authentic, whatever that looks like, and expect everyone else to as well. She also believes that male dominance in any industry is not sustainable. As such, women and men should represent leadership positions at the same rate they exist in the world, 50/50.

In conclusion, Melinda Gates supports teamwork, finding shared vision and empowering women to lead. Gates is a huge proponent of open sharing and empowering teams to perform greater than they would have performed alone. Gates points out frequently to know and go in a direction, being decisive about the direction. She sets her priorities because if she does not, inevitably someone else will. To be successful at anything, one must prioritize their goals to help their team achieve them more aptly. Gates understands the unique challenges faced by women, such as traditional gender roles at work and at home. She also speaks on the topic of empathy, to start with building trust in each other and then feeling comfortable to exchange ideas.   And lastly, Gates challenges the ideas of perfectionism that women bring into the workplace, replacing it with authenticity. All of these leadership qualities make Melinda Gates an excellent study for female leadership in technology.

Table 3: *Attributes of Melinda Gates*

Quality Attributes	Melinda Gates	Justifications
A1 - Knowing others and trusting teams (Trust)	5	**Strong reference to trusting team**
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	2	**Not a very strong inference in writings**
A3 - Knowing their own passions (Passion)	4	**Includes reference to following passions**
A4 - Knowing the value of things (Value of Things)	1	**Things and products are not as important**
A5 - Knowing where they are going (Vision)	5	**Strong reference to vision towards future**
B1- Empathy for others	5	**Strong empathy for others, especially other countries**
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	5	**Strong writing observed, research promoted and conferences hosted on topic of gender**
B3 - Valuing authenticity over perfection	5	**Strong correlation to authenticity over perfection – direct quotes available**
B4 - Ambition and drive despite negative reactions, resilience	1	**Not a strong ambition or drive issues related to experiences**
B5 - Personal experiences and tragedy change career trajectories	2	**Comes from good family/educated; not many personal issues that have impacted trajectory**
B6 - Overcome education and experience bias	1	**Comes from good family/educated/great experiences**

Sheryl Sandberg

Sheryl Sandberg was born in 1969, shaped by feminist movements happening in the US (Gregersen, 2020). By 1995, Sheryl had graduated from Harvard with an MBA, followed by a fellowship in business. One major stepping stone for Sheryl was working for Google Inc., during which time she grew their marketing team from four people to over four thousand. At a Christmas party in 2007, Sheryl happened to meet Mark Zuckerberg, the co-founder of Facebook. After discussions, and although not actively hiring for the position, Sheryl was offered the job of Chief Operations Officer by Zuckerberg and was subsequently hired at Facebook in 2008. In December 2010, she gave a TED speech titled "Why we have too few women leaders," which received accolades from men and women, especially those leading technology organizations. In 2013, Sheryl penned her first biography which quickly became a best seller, titled *Lean In: Women, Work, and the Will to Lead.* The book highlights equitable opportunity for women in leadership positions and in global technology firms. Through her words, Sheryl encourages women to lean into opportunities, take on more leadership roles, and usher in other women into leadership positions. In 2017, Sheryl authored a book that explores resilience through experiences of grief, titled *Option B.* This book, while not addressing feminism per se, focuses on the resilience of the human spirit and of her own resilience in the wake of her husband's death.

Arguably one of the most read books in modern feminine leadership principles, *Lean In*, offers readers a rare glimpse into the life of a technology giant, Sheryl Sandberg. Sandberg has a very distinct style of leadership that is less direct conversationalist and more self-sustaining and developing. There are two predominantly general leadership traits that show up frequently in Sandberg's writing. The first and most frequent is knowing where she is going in her career,

drawing on a strong sense of self and resilience to further her vision. In one of the best quotes

that exemplifies her stance on self-reliance, Sandberg says:

> Resilience is not a thing we get a little bit of when we're born. Resilience is a muscle and
>
> we build it. We build it in ourselves, and we build it in each other. It's about how quickly
>
> we recover and rebound from the worst events of life. (Duffy, 2020)

Self-development, especially in the area of communication, is one of the hallmarks of

Sandberg's leadership style and in how she grows herself and others around her. In her advice,

she believes that more authentic conversation is lost through awareness of societal norms and

expectations. As Sandberg explains why employees hold their tongues:

> Fear of not being considered a team player. Fear of seeming negative or nagging. Fear
>
> that constructive criticism will come across as just plain old criticism. Fear that by
>
> speaking up, we will call attention to ourselves, which might open us up to attack.
>
> (Sandberg, 2013, p. 78)

Fear of failure or of nonacceptance holds people in leadership positions back from having crucial

conversations. However, through self-development in the area of effective communication, one

can overcome most issues that arise and become more resilient in the boardroom.

Fred Kofman, a MIT professor and author of *Conscious Business*, explains that true

communication does not result in one truth, but is the acceptance that everyone has a truth that is

personal to them and that using "I" in conversations when expressing opinion, followed by

specific examples of issues, allow for less denial and more movement toward resolution between

parties (Kofman, 2006). With active listening, clarify any points that the other person makes so

that there is a next step forward. Include statements that refrain from using "but" as it may

negate everything. Lastly, in authentic conversation, ask for feedback on areas to improve

communication or commitment to common goals. These points for constructive conversation by

Kofman helped Sandberg over the years to be a master communicator, as active listening was not

a natural gift of hers. Sandberg has spent much time and energy towards self-development in

this area.

By being clear in communication and requiring that her team do the same, Sandberg's

team activities move faster than in many companies. As such, more goals are accomplished. A

clear vision, with clear communication has served Sandberg well in all of her positions. Yet, she

continues to build up her skillset in communicating. While most of the references about vision

and knowing where they are going relate to the goals of the team, Sandberg's idea of vision is

more about where a leader sees themselves and moving toward that vision. Sandberg advices to

not take failures personal, meaning that to be resilient, one must concede that there will be areas

of weakness to work, keeping the best version of themselves in their sight (Sandberg, 2013).

Another one of Sandberg's views that shape her leadership is that she knows her own

thought processes well, relying on her expertise in certain areas to shape the future. There are

very few popular books written and published regarding the embodiment of leadership, focusing

on somatic studies. Sandberg is one of the few writers who commonly discusses comparisons

with mental and physical leadership. She says in her book, *Option B*, "just as our bodies have a

physiological immune system, our brains have a psychological immune system — and there are

steps you can take to help kick it into gear" (Sandberg & Grant, Option B, 2017, p. 21). Another

way to analyze this thought is answering the question: How does the mental state get out through

the body? Leaders must understand their thought process and seek knowledge of how it operates

in the world and through various stimuli. Leaders, when feeling inadequate, can show it or hide

it. Regardless if it is shown or hidden, a leader must know themselves well enough to anticipate the reaction and turn it into a drive towards a goal. Sandberg speaks to this scenario:

> One reason women avoid stretch assignments and new challenges is that they worry too much about whether they currently have the skills they need for a new role. This can become a self-fulfilling prophecy, since so many abilities are acquired on the job. An internal report at Hewlett-Packard revealed that women apply for open jobs if they think they meet 100 percent of the criteria listed. Men apply if they think they meet 60 percent of the requirements. This difference has a huge ripple effect. Women need to "shift from thinking, 'I'm not ready to do that' to thinking 'I want to do that – and I'll learn by doing it'" (Sandberg, 2013, p. 62).

To summarize her words, an aspiring leader cannot wait until tiaras are handed out to take the queen role. They must show up even when they are not 100 percent ready and use their determination to learn the skills necessary to perform the job. Women must advocate for themselves to get ahead in their careers. After all, as Sandberg puts it, "the ability to learn is the most important quality a leader can have" (Sandberg, 2013, p. 35). Everyone is a novice at some point, but knowing personal strengths and weaknesses, and showing up ready to learn is the way to expertise.

Throughout her career, Sheryl Sandberg has faced numerous challenges related to being in the highly technical role, with a 24/7 presence (Google and Facebook). Sandberg's perspective is somewhat unique, of being a woman and holding an operations leadership role, which very few do. Sandberg sees direct correlation between the rise of the female leader and the distinct change in how she is perceived by both male and female peers. Sandberg explains:

Every woman I know, particularly the senior ones, has been called too aggressive at

work. We know in gender blind studies that men are more aggressive in their offices than

women. We know that. Yet we're busy telling all the women that they're too aggressive.

That's the issue. (Sandberg, 2013, p. 41)

Aggressiveness is a term rarely used to describe men in the workplace, using instead words like

driven and strong. With women, being driven and strong is mostly interpreted as aggressive. On

an equal playing field, women should be able to lean into their strengths if it is successful.

According to Sandberg, women should also negotiate higher pay and never accept the

first offer. She also suggests that women provide a legitimate reason for the negotiations. Men

do not have to do this in the workplace, because leadership (and society) expects they will

request raises to provide for their family. Sandberg believes women should use a negotiation

tactic, stating "someone more senior encouraged the negotiation" or "cite industry standards" for

a higher range of pay (Sandberg, 2013, p. 47). From her standpoint, "a truly equal world would

be one where women ran half our countries and companies and men ran half our homes," leaving

traditional roles behind (Sandberg, 2013, p. 7).

After Sandberg had been with Facebook less than a year, she had her first formal review

with Mark Zuckerberg, the Chief Executive Officer. He told her frankly that her desire to be

liked would keep her from her goals and if everyone liked her, she would not be moving enough

forward (Sandberg, 2013). This coaching opportunity allowed Sandberg to take a strong look at

her own faults in leading and to continue progress towards authenticity.

Authenticity, according to Sandberg is the opposite of perfection. She explains that

perfectionism, or "trying to do it all and expecting it all can be done exactly right" is a "recipe

for disappointment. Perfection is the enemy" (Sandberg, 2013, p. 123). Perfectionism keeps leaders from being their authentic selves, and women are more vulnerable to this trait. Self-awareness of potential pitfalls and working towards authenticity by showing vulnerabilities is key to developing authenticity. As a way to combat perfection, Sandberg advises to bring your whole self to work. I don't believe we have a professional self, Monday through Friday and a real self the rest of the time. It is all professional and it is all personal" (Sandberg, 2013, p. 89). Align with the goals, seek authenticity and encourage it in others. When everyone can go into battle knowing each other's strengths and their weaknesses, the team as a whole is better prepared to cover and support.

Sandberg provides real examples from her own experiences showing that it is important to know a direction with a clear vision and to seek opportunities to improve skillsets when feeling inadequate. Actively improving oneself will help achieve team goals and personal goals. Alignment of the mind and the body is also important to cope with feelings of inadequacy. Showing up as authentic, not a perfect self, is most important as a leader so that all the work done is not sidelined by feelings of failure. Sandberg offers real guidance, especially for women, in navigating corporate technology positions.

Table 4: *Attributes of Sheryl Sandberg*

Quality Attributes	Sheryl Sandberg	Justifications
A1 - Knowing others and trusting teams (Trust)	**5**	**Strong reference to trusting team**
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	**5**	**Not a very strong inference in writings**

A3 - Knowing their own passions (Passion)	4	Includes reference to following passions
A4 - Knowing the value of things (Value of Things)	2	Things and products are not as important
A5 - Knowing where they are going (Vision)	5	Strong reference to vision towards future
B1- Empathy for others	4	Empathy for others, especially her own team and herself
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	4	Personal experience with non-traditional roles; supportive partner
B3 - Valuing authenticity over perfection	5	Strong correlation to authenticity over perfection – direct quotes available
B4 - Ambition and drive despite negative reactions, resilience	4	Experienced some pushback form leadership/others, resilience to move forward noted
B5 - Personal experiences and tragedy change career trajectories	1	Not many personal issues that have impacted trajectory
B6 - Overcome education and experience bias	2	Comes from good family/educated/great experiences

Karen Aiach

Karen Aiach is a French native who founded the biotechnology research and clinical trial company, Lysogene (Luxner, 2020). Her personal life necessitated the creation of the company in 2009 to research and develop a treatment for Sanfilippo Syndrome A (SSA). This disease is a rare neurodegenerative disease that has no cure, however that did not stop Karen from pursuing one. She left her accountant job and funded a non-profit to research a gene therapy treatment for SSA, in hopes to find a cure for her daughter, Ornella. She was challenged to raise money for

scientific studies that she was not sure would work and to learn new scientific knowledge of

biotechnological techniques. Aiach was simply a mother fighting for the life of her child. Early

clinical trials showed improvement in her daughter, as well as other patients treated, however

there is still no cure. Although her daughter eventually died at 15 years old in 2019, Lysogene,

continues the search for a cure in her honor.

Aiach is relatively unknown compared to other leaders in technology. Her focus is

predominately set towards a cure for a rare disease. What makes Aiach such a strong female

leader in technology is because she was not hired into a leadership position created for her by an

organization. She started her own biotechnology company with little resources, but a passion to

do something extraordinary. Along with that journey came the mental toil of having a child that

needed medical care, as well as making room in a sector that can be extremely closed to female

leadership. Currently, biotechnology is one of the hardest sectors of technology for women to

navigate up to the top positions. According to *BioSpace*, a leading news source within the

biotechnology community, "the general consensus is that only about seven to nine percent of

chief executive roles in biotech are filled by women" meaning, nearly impossible (Terry, 2018,

para. 1).

With perseverance against all odds, Aiach learned from her personal experiences about

the value of medicinal products, how to expand her knowledge in science and also when to rely

on others through teamwork (Luxner, 2020). Aiach has firsthand experience with Sanfilippo

Syndrome A (SSA) as a mother. Most people going in to biotechnology have knowledge learned

through textbooks and traditional education at a college or university. However, Aiach was

internally led to seek out knowledge by conversations, reading latest scientific development, and

building a company from the ground up. Having a daughter with an uncurable disease was the

reason that Aiach started a biotechnology company. By having Ornella, Aiach realized there was

value in finding a cure. There was value in creating something, bringing experts together to

research and create a medicinal treatment and cure for SSA.

After her daughter's diagnosis, Aiach says, "I promised Ornella I would continue fighting

until there's a drug on the market. We will do everything we can to show that this drug is

efficacious, because every day is a day lost against this disease" (Luxner, 2020, para. 32). The

value of the product she was creating is the value of a human life saved from early death. She

was told many times that this goal was beyond her capabilities and that solutions should be left

to drug research and development companies. However, time was not on Aiach's side for a cure

– her daughter was dying. Aiach would experience internal doubts, as well as external doubters

who would put her down. Almost as a challenge back to doubt, Aiach tells patients, employees,

and investors she does not like the word impossible (Luxner, 2020). She has challenged the

entire biotechnology community to see that passion can move towards a cure, regardless of

education or experience, raising money to build a business. She reminds her employees and

people around the world working towards the goal of a cure that it is her job, and their job, to

explore the unknown (Luxner, 2020). Aiach has a personal driving force that is dedicated

against all odds to find a cure for SSA.

Aiach knew she was up against herself more than any other person to build a

biotechnology business. Therefore, she had to know her own capabilities, and see how to

improve her knowledge-base of the drug manufacturing industry. Coming from a traditional

accounting background was extremely different than the go-big-or-bust research and

development firms across the world. While she was experienced in financial aspects, and

working on high stakes projects with diverse partners, there was still a lot to learn. Aiach

discusses her experiences:

> I was used to working on complicated stuff with people from different countries. I was at
>
> ease with numbers, money, companies and structures, so I started my own company with
>
> a patient group trying to understand the disease and the world of drug development.
>
> (Luxner, 2020, p. 11)

Why was her approach different than a lot of research and development firms? She started with

a patient, while most biotechnology companies start with information, data and science. Aiach

met patients from around the world and collectivized a movement towards research. She built

repositories of stories, including diets, routines, experiences, feelings and concerns from all the

patients to build the science (Luxner, 2020). Aiach, along with capable scientists, built

friendships with the people they were helping. As new treatments were created from research,

patients could participate in clinical trials. One treatment in particular extended Ornella's life by

several years. Through partnerships, Aiach has raised close to $100 million, in hopes that

treatments are available to patients.

In addition to knowing the value of creating a drug product, Aiach is successful because she

seeks to build patient groups and scientific collaborations. Teamwork, with various skillsets, is

important to Aiach. In order to build a biotechnology company, she hires and trusts her

clinicians with a scientific background to create medicine. She says,

> I was not a scientist or clinician and never pretended to be. My job is to help these other
>
> people do their jobs, and concentrate on the essentials: working on regulatory affairs,

clinical trials, and fund their work. Everyone has their part, but science is unpredictable, and very often we have results we're not happy with. (Luxner, 2020, para. 23)

Disappointment is a huge part of the drug discovery process. Aiach continues supporting and seeking out funding for the development work to continue. However, the key to success is that she focuses on the things she is extraordinary in and hires people to do the things they are extraordinary in. By relying on each other's strengths, the company and its mission persist.

Aiach's accomplishments thus far in the search for a cure for Sanfilippo Syndrome A were not without obstacles. One of the biggest challenges for Aiach was convincing funders to support her team's efforts despite her own lack of experience in drug development. Compounded with general gender bias in biotechnology leadership positions, the project was even less likely to succeed. There are many examples of top executive leaders who lack formal training in their field; Mark Zuckerberg, CEO of Facebook, James Park, cofounder and CEO of Fitbit, Richard Branson, founder of Virgin Group, and Bill Gates, cofounder of Microsoft. These organizations were started, not by the most degreed individuals, but by people who were ambitious to change the world. Very few females hold the highest roles in biotechnology, information technology, or technology-driven enterprises without extensive experience or degrees related to the field. Therefore, Aiach being turned down by investors is not surprising. Even with a financial degree and background, she was not on the same playing field as men. She comments:

The biggest challenge for me at the beginning was that I was not a scientist or a clinician or gene therapist. I was a mother taking responsibility to build a program and manage it.

No one else would have done it so I wasn't infringing on anyone else's territory, but even

so my being a mother of a patient was strange for some people. (Soloman, 2015, para. 17)

People had a hard time seeing a woman without experience or degrees in a scientific field

starting her own business to invent a new medicine. Her lack of knowledge and experience often

overshadowed her commitment to the cause in meetings.

One of the experiences Aiach found particularly disheartening was the reaction she

received from patient groups, the people that she was attempting to help. She explains, "there

were also patient groups who wouldn't support this program because it was managed by a non-

scientist. They considered me arrogant" (Luxner, 2020, para. 20). Women are sometimes

deemed arrogant or bossy because of their insistence to lead, versus societal expectations that

they follow. Patient groups, and others, viewed her drive and ambition as too strong and that she

should be more caring and supportive, letting her daughter die comfortably, instead. Gender bias

exists in all fields of work. People could have looked at her strong track record in finance, her

passion to seek help for her daughter, and the supportive scientific team she hired to create

medicine, but instead focused on her lack of science background or degree. This type of gender

bias prevails in society, as many studies have shown that women leaders must have more

education and experience to earn what their male counterparts earn, and even then, experience

wage gaps. According to the United States Census Bureau, "among the educated, women earn

74 cents for every dollar men make. More education leads to higher earnings but the gender pay

gap is wider among men and women with a bachelor's degree than among those without" (Day,

2019, para. 2). This statistic can be interpreted that the opportunities for income earning, or

holding higher level positions, significantly decreases for women even if they have additional

degrees. Seemingly insurmountable odds for Aiach existed.

Before a cure could be developed, Aiach's daughter died from her disease. Aiach was heartbroken, but it did not stop her from continuing on the search for treatments and cures. Her passion and singular focus on the goal has made Aiach a strong supporter for patient rights and accessibility to treatment opportunities. Ornella lived a longer life expectancy treated with trial medicine from her mother's company and there are hopes that others will continue to benefit from that treatment as well. A few years before Ornella died, Aiach explained:

> My daughter has been treated and benefited, and we'll see how she progresses or regresses. But the pioneering spirit to transform this investigation treatment into something accessible for other patients has become a real passion for me. That's something special and different from another company where you only want to make profit. (Luxner, 2020, para. 13)

In the process of solving her own daughter's disease, Aiach created a world where other patients much like Ornella, benefited from her passion. While Ornella has left the world, her legacy and story in the lives of other patients, lives on.

Through understanding the value of things, like medicine and cures for neurodegenerative disorders, as well as trusting her team, Aiach was able to successfully fund and start Lysogene. Despite gender bias for her ambition and lack of experience or education in the science field, she persisted. Passion for others and her daughter's memory still drive Aiach to find a cure. While the negative voices in society still exist, her internal voice and drive to make the world a better place is much louder.

Table 5: *Attributes of Karen Aiach*

Quality Attributes	Karen Aiach	Justifications
A1 - Knowing others and trusting teams (Trust)	**5**	**Strong reference to trusting team**
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	**4**	**Moderate proponent of expertise**
A3 - Knowing their own passions (Passion)	**4**	**Includes reference to following passions**
A4 - Knowing the value of things (Value of Things)	**5**	**Extreme value of things, as a way to move business forward**
A5 - Knowing where they are going (Vision)	**2**	**No strong correlation to vision as important to position**
B1- Empathy for others	**4**	**Empathy for others, especially the team**
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	**4**	**Personal experience with non-traditional roles; supportive partner**
B3 - Valuing authenticity over perfection	**1**	**No mention of authenticity issues related to perceived perfection**
B4 - Ambition and drive despite negative reactions, resilience	**5**	**Experienced issues related to pushing agenda forward – extreme resilience noted**
B5 - Personal experiences and tragedy change career trajectories	**5**	**Personal connection to the purpose of the business and future success – strong reference**
B6 - Overcome education and experience bias	**5**	**Fighting bias and stigma of personal accomplishments – strong reference**

Mary Kerr

Kerr earned a PhD in Pharmacology at the University of Bradford, did post-doctoral research at the Michigan Cancer Foundation, Detroit, and has an MBA from the University of Kingston (Cohrt, 2018). Most of her career has been based out of the United Kingdom, employed at Glaxo, Smith and Kline (GSK). Currently, she is the CEO of KanDy, a company dedicated to the treatment of menopause in women. Kerr found a unique interest in menopause, partly due to her own experiences. She has extensive education in the scientific field, specifically in research and development, and her passions are now focused towards women's issues and novel treatments. Realizing where her career would dead-end at GSK was a turning point for Kerr and the reason why she is a subject of research in current female technology leaders.

Kerr has extensive experience in science and is a proven leader, rising to the highest level at GSK possible: Senior Vice President. However, that was as far as she could go at GSK and the CEO position would not be hers. The existence of a glass ceiling was very real for Kerr. She describes a turning point, a shift in mindset, that made her reevaluate her career trajectory. She says:

> I was at a stage of my career where I'd always wanted to be a CEO, but I wasn't going to become the CEO of GSK. I could move into biotech and create something new and exciting at a time when I had energy, experience and a desire to do it. (Cohrt, 2018, para. 4)

Thus, her company KanDy was born. In order to create a company, she had to evaluate herself first. Knowing herself and her own personal achievements was a driving force in Kerr's

decision. Also, Kerr knew her own talent possibilities and her own expertise in the field. She knew she was capable of leading an organization, regardless if that was at GSK or another company. When leading into the unknown, having a strong sense of self is important, especially when times get tough.

Another quality of Kerr's is that she is able to see and value others for their contributions. Knowing how tough it is to rise to the top in an organization, Kerr empathizes with others who want to do the same. She prides herself most of all for valuing her team and supporting them to build the company together. When asked what is her biggest inspiration, Kerr believes that her team are united in a common commitment to quality and it is in everything that they do (Cohrt, 2018). While Kerr has the knowledge about scientific development and discovering of new therapeutics, she accepts that she cannot do it all.

In addition to working as a team to accomplish the mission of KanDy, Kerr also values diversity in her team members. In an interview, Kerr referred to strength coming from diversity within her team, and coming from Northern Ireland she has witnessed the importance of respecting diversity (Cohrt, 2018). Given the issues in Northern Ireland, Kerr focuses on hiring for diverse expertise, religions, nationality and gender. Northern Ireland, from historical and culture perspectives, as had years of unrest, violence and religious power struggles (Dorney, 2015). Turmoil has existed among nationalists, those who are traditionally Irish Catholics, and unionists, those who are traditionally British Protestants. Disputes in Northern Ireland persist, including the United Kingdom exit from the European Union. This action is significant because, as contrasted in the United States, our diversity efforts are much broader, observing equal opportunity practices based on religion, sexual identity, disability and ethnicity.

There are many areas of diversity that Kerr chooses to touch on when giving interviews or presenting information about her research. One of the themes that is mentioned is the idea of perfectionism and a passion for authenticity. Female leaders do feel a sense of expectation within the working world to over-perform, a trait that intrinsically shows the need to make up ground from their male counterparts' achievements. Kerr advises women to be their authentic selves, as this is more sustainable over their careers (Cohrt, 2018). When she was at a crossroads in her career journey at GSK, she decided to follow her own passion towards women's studies, specifically in menopause research. She understood that by finding the thing that was most passionate inside of her, she could harness her intelligence and lifelong work into a meaningful future. She knew she could be a CEO and as long as it was something she was uniquely and authentically energized by, she would be successful.

Going a step further than knowing herself, Kerr had to envision her place in society. Kerr's speaks for women going through what she is also experiencing at her age and gender. Gender empowered Kerr to start KanDy, and through investments and initial returns in the market, she is proving to other women that ambition for women's treatments is a just and profitable cause. KanDy took NeRRe's drug, NT-814, and began clinical trials. NT-814 is currently in Phase II trials, with great results that help women with hot flashes and night sweats, with no negative effects (Trower, et al., 2020).

Kerr is determined to raise supporting funds and continue clinical trials necessary to bring the drug to market. She says, "our investors and the KanDy management team are united by the common belief that NT-814 has the potential to be a transformational treatment for the millions of women worldwide who suffer debilitating symptoms of the menopause" (Taylor, 2018, para. 2). The lack of activity in the area of menopause studies has been attributed to the

gender gap in biotech company leadership, too few women taking part in clinical trials and a tendency to lump all patients—male and female—into one category. Meanwhile, research suggests women make most of the significant healthcare decisions for themselves and their families, however, their trust in the industry is low (Matoff-Stepp, Applebaum, Pooler, & Kavanagh, 2014). Kerr is trying to change that, one clinical trial and one drug at a time.

Table 6: *Attributes of Mary Kerr*

Quality Attributes	Mary Kerr	Justifications
A1 - Knowing others and trusting teams (Trust)	5	**Strong reference to trusting team**
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	5	**Strong proponent of expertise – knowing when to leave organizations; start company**
A3 - Knowing their own passions (Passion)	5	**Includes strong reference to following passions**
A4 - Knowing the value of things (Value of Things)	4	**Value of things, such as medicine and success in development**
A5 - Knowing where they are going (Vision)	4	**Vision to solve issues related to biotechnology**
B1- Empathy for others	4	**Empathy for others, especially the team; empathy for patients**
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	4	**Personal experience with non-traditional roles; supporting women patients**
B3 - Valuing authenticity over perfection	5	**Authenticity of knowing self – being true to one's self – strong reference**
B4 - Ambition and drive despite negative reactions, resilience	1	**No strong correlation to issues related to resilience**

B5 - Personal experiences and tragedy change career trajectories	5	Personal connection to the purpose of the business and future success – strong reference
B6 - Overcome education and experience bias	1	Educated, smart, good background – no strong correlation

Jean E. Cunningham

Jean Cunningham is the author of Real Numbers, Management Accounting in a Lean Organization, as well as former CFO and Vice President of Lantech, Inc. She is a transformative leader in lean organizational development, and consults around the world on lean topics. Cunningham has a bachelors in accounting from Indiana University and a master's in business administration from Northeastern University's Executive Program.

Cunningham has a couple of notable attributes inferred from presentations, lectures, books and articles. Trusting teams and teamwork is an important part of Cunningham's leadership style. As a leader and consultant for many organizations, she has to work with a diverse group of people. She is a proponent of open-book management, which means that anyone is allowed to see the financials within an organization, and knows where to locate the financials, such as electronic documents, paper copies and long-term storage. Cunningham speaks to this in her book, *Real Numbers*:

Consider the organizations that have gone to open-book management – a move that companies make in order to promote trust and a sense of personal ownership in the business. It's a big step in most companies, to commit to this kind of openness, and the roadblocks are more numerous than one might envision. (Cunningham & Fiume, 2003, p. 20)

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Through Cunningham's work in organizations, she expresses the importance of shared knowledge of the financials, such that anyone can look at the money and understand the state of the organization. With knowledge of interworking systems, employees feel empowered and a part of the work needed to be done in order for the organization to succeed. Additionally, if executives allow certain aspects of visibility within the financials, it allows for improvement so that employees do not feel like they are being blamed for issues. The work to improve becomes a part of shoring up processes. Cunningham explains this idea that "executive commitment and the visibility of improvement work will be of central importance to any company that wishes to send a clear message for change," meaning everyone has the opportunity to get on board and management can better predict their reactions (Cunningham & Fiume, 2003, p. 61).

Cunningham breaks down employees into three categories to help managers understand their reactions to change and process improvement. She believes there are the *zealots*, or early adopters, who will support change. These individuals can help pull the other employees into adopting change as well. Next, there are *middle people*. These individuals must see that improvements are good and that efforts toward improving are rewarded before they adopt the change mindset. Most people are *middle people* in an organization. They have to have a certain amount of time to review the change and measure it against their personal values and goals. Lastly, there are *concrete heads*. These individuals are the bottleneck to organizations because they believe everything has to be given to them from the boss and the boss has the final word. With them, everything funnels through in hierarchy. The key to successfully leading *concrete heads* is planning the change and creating an environment that requires change (Cunningham & Fiume, 2003, p. 61-63). Regardless if an employee is a zealot, middle person or a concrete head,

it is up to the leader to manage them through change so that the team is successful and arrives together as best as possible.

Cunningham also advocates for environments in organizations where everyone has equal input in change. Cunningham states that leaders should allow their teams to provide "ideas and suggestions on nearly equal footing… being careful not to squash anyone" (Cunningham & Fiume, 2003, p. 63). Allowing open discussion, as well as discourse, allows the best ideas to win and a resolution to be a collective process. Additionally, Cunningham insists that no one's entry is non-value added. Employees should be allowed to assign value to issues they wish to change, and leaders should focus on the target – reduction of errors, waste and redundancy. Ultimately, this is the goal for any organization attempting to follow lean principles. Also, employees should be encouraged to choose improvement projects that start in their own areas, so that everyone takes responsibility of their sphere of influence (Cunningham & Fiume, 2003). This action helps employees to feel that they have direct power over their experiences at work, and their input matters.

Cunningham also believes that creating a teamwork environment means that employees have a certain amount of leeway to fail. She believes that, "when people try something new and it doesn't work, they should not be penalized," instead employees should be encouraged to try a different approach and keep working towards process improvement (Cunningham & Fiume, 2003, p. 161). Ultimately, in a team-based environment, profit and personal satisfaction should be everyone's goal. If people are happy to come to work, give their best efforts, feel their voices are heard, and take ownership in processes, everyone wins.

Cunningham is also a huge proponent of valuing things. She includes a chapter in her book *Real Numbers*, on materiality, also understood as the value of things. Daily decisions within an organization mostly have to do with materials being produced. When an organization issues financial statements publicly or has to address stakeholders on earnings, materiality is the number one thing reported. She offers that leaders should not "underestimate the complexity involved in making decisions about materiality," therefore all employees should have a vested interest in understanding the value of their products (Cunningham & Fiume, 2003, p. 31). In terms of materiality, there will be assessments made on how well an organization is performing. Cunningham is adamant when explaining things in terms of value, explaining that you should be able to rely on its placement. In other words, the goal in any organization when it comes to sharing information should be to always provide something that is useful. Leadership should make sure that employees can understand what is really happening in the production process, and showing numbers that are clear and meaningful will aid in that understanding. Shareholders, employees and customers should understand the value of things. Cunningham believes that "in order to create something desirable, you need to get the customer's feedback into the process," therefore creating a quick turnaround in feedback loop from customer to production is important (Cunningham & Fiume, 2003, p. 109). This feedback loop can help bring customers into the team environment because they then have a say in the value of the things being produced.

Another important aspect of Cunningham's belief in leadership is the idea of resilience and ambition, not necessarily of the individual but of the organization. Since Cunningham's focus is generally on process improvement, she is a supporter of influencing a business model to become resilient. In one of her LeanTalks, Cunningham discusses the importance of influencing the business models of organizations by creating capacity and freeing up time and talents of

employees to work on higher valued activities. She believes reorganizing equipment or restricting workspaces does not create a return on investment (ROI). However, she believes that it can create capacity in people to move towards more value-added work. She also believes that people should not be left to do what they have always done because leaders have made a promise to employees to keep them employed. If an organization remains stagnant or unprofitable, people can become a part of a collateral layoff. Cunningham suggests that leaders must keep employees hired by retraining them to move to other functions of the organization to capitalize on their capabilities. Over time, people can learn new skills and find new strengths, accelerating the financial outcomes of a company. The purpose of using lean principles is moving people around to achieve higher financial outcomes (Lean Enterprise Institute, 2018). Reallocation and reorganization allow a company to be resilient during times of change, keeping the drive of the company towards profit at the forefront.

Cunningham also believes in empathy for employees and for others in the workplace. In one article, Cunningham states that it is the job of the leader to reassure people that they have jobs and be a part of the change that is inevitable. Staying relevant is important to any organization and therefore employees have an opportunity to be relevant too. Afterall, no one loses employment when a firm earns more money through productivity gain. However, everyone's job has to change at some juncture to be relevant to the times (Cunningham J. , 2016). Cunningham believes it is important for leaders to let the agile employees go ahead and stay with the slower-to-adopt employees, so that the higher achievers can get an organization to where it needs to be faster. However, a leader should still provide the direction needed for the slower-to-adopt employees, for eventually they will adopt and move forward, with a thankful

attitude that the leader did not leave them behind. This concept is explained as the sheepherder leadership style, and is one that brings empathy into the workplace.

Cunningham also experiences leadership through the female perspective and has provided some context of that experience in her writings. When she was employed at the Digital Equipment Corporation in Maynard, MA, she was the first female plant controller. In this position, she led a fully engaged team with lean practices, achieving high production of innovative products. Her success encouraged her to start her own consulting business, Jean Cunningham Consulting, and help institute the very best of lean practices at organizations all over the world. As a female, one of the characteristics she believes in is authenticity over perfection. In her book, "Easier, Simpler, Faster," Cunningham states that with lean approach, leaders and employees want to have all of the answers in a perfect package before implementing change. However, Cunningham states that reality is not perfection, but being authentic in the process is. She comments about her leadership style, "but while we didn't always know where we would end up, we did use a lean approach – just doing it, learning from mistakes, correcting mistakes and always asking, 'Is there a better way?'" and that approach has led to much successes in her life (Cunningham & Jones, 2007, p. 4).

Considering Cunningham's background and drive to succeed, she exemplifies how a leader should trust in teams and teamwork, value the things produced, value resilience and ambition, as well as be empathetic towards employees, and seek authenticity in herself and others. Cunningham's leadership in the areas of lean management has been key to helping hundreds of companies to see the success in their products as well as their people.

Table 7: *Attributes of Jean Cunningham*

Quality Attributes	Jean Cunningham	Justifications
A1 - Knowing others and trusting teams (Trust)	5	Strong reference to trusting team
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	2	Not a strong reliance on thought process/expertise
A3 - Knowing their own passions (Passion)	1	Not a strong connection to passions related to career
A4 - Knowing the value of things (Value of Things)	5	Strong value of lean field
A5 - Knowing where they are going (Vision)	2	Vision not well correlated to purpose
B1- Empathy for others	4	Empathy for others, especially the team; empathy for employees
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	4	Some personal experience with non-traditional roles in lean
B3 - Valuing authenticity over perfection	4	Authenticity of knowing self – being true to one's self –reference
B4 - Ambition and drive despite negative reactions, resilience	5	Strong correlation to resilience in work to make processes better – process focused
B5 - Personal experiences and tragedy change career trajectories	1	Not a strong correlation to experiencing tragedy
B6 - Overcome education and experience bias	1	Not a strong correlation to having to overcome bias

Mary Barra

Mary Barra has been the chairman and CEO of General Motors (GM) since 2014. She was also elected chairman of the GM Board of Directors in 2016. Under Barra's leadership, she is focused on improving the customer experience and strengthening GM's portfolio for its future growth. She believes in the transformation power GM possess to shift the world towards autonomous vehicles. Prior to the CEO position, Barra was an executive vice president overseeing design and engineering. Also, she has served as vice president and plant manager. She began her career in 1980 as a graduate of Kettering University, a GM Institute for training. She graduated with a bachelor's in electrical engineering in 1985 and a master's in business administration.

Mary Barra was a homegrown leader in GM. She moved up through the ranks to the top position of CEO. Rather than the board seeking an outside candidate, they recognized the leadership qualities in Barra and hired her. After being hired as the CEO, the company was faced with a huge burden in their production of cars with faulty ignition switches as well as other recalls. Because Barra had a well-rounded knowledge of the production processes at GM, it proved to be a huge asset in bringing the company through the crises. In the wake of the recalls, Barra tapped into her deep knowledge of GM processes and lead the company through the storm. Two years after the recall issues, she was also given the title of Chairman of the Board of Directors, a move never before played by GM (Rosen, 2014). The importance of this additional title is that the board witnessed the work that went into the handling of the recalls and knew they had hired the right person for the job. Barra is quick to substantiate the tough times that GM experienced and acknowledge that her many years of working within rank helped. Her thought

process and expertise in the company products and processes allowed GM to change their operations and become stronger than before.

Although the company survived the recalls, Barra made a unique decision to close several plants and cut thousands of jobs. While this news came to a shock to employees, it made GM shift its focus to autonomous and electric vehicles. To be efficient for the future, Barra relied on her own expertise of the organization to know where to cut costs. She also realized that the company would eventually go extinct if it did not cut now and shift profits to research and development, a change that no previous CEO of GM was willing to accomplish (Bomey, 2018).

Throughout her career, Cunningham has learned many roles at GM that include engineering, quality, production, human resources, research and development and supply chain operations. Instead of being in the limelight, as many CEOs can tend to do in high powered roles, she keeps a humble attitude, relying on her thorough understanding of operations to manage GM. By keeping the needs of GM at the forefront, she focused less on her own career and more about the success of GM. She created her own opportunity within the organization based on her expertise and understanding the economic value of her contributions (Snyder, 2016).

Aside from Barra's expertise in the production of vehicles, she empowers her employees to work together as a team within the organization and with outside suppliers. Barra channels everyone's energy by requiring them to own their own experience at GM (Rosen, 2014). She holds her middle leadership accountable to lead their teams to success. Rather than using a hard-lined approach to leadership, she uses conversation to break down communication barriers. Employees within GM can feel that Barra's leadership style is different, one that requires

teambuilding and consensus. She frequently holds town hall meetings and requests feedback

from the floor to help with projects, challenging all levels of management to problem solve

together (Colantuono, 2020). Barra created an inclusion advisory board, with diversity, inclusion

and equity as the main focus to improve the hiring and internal development of employees, as

well as relationships with suppliers and car dealers (Aspan, 2020).

As a female leader, Barra does talk a lot about her experiences leading up to her CEO

role. In an interview with Detroit Free Press, she praises her parents for encouraging her to seek

out and choose non-traditional roles in a career:

> My dad worked for GM for 39 years. He taught me the love of engineering and cars and
>
> my mom said, 'Mary, you can do anything and be anything. You'll have to work hard,
>
> but you can be anything you want to be.' I liked math and science in school and so
>
> engineering seemed like a natural pathway for me when I started college (LaReau, 2020,
>
> para. 4).

By being encouraged at a young age to break traditional gender career goals, Barra now

encourages other females to do the same. In a partnership with the Girl Scouts of America, GM

gave a $1 million grant to organize Science Technology Engineering and Math (STEM)

programming, including courses that any girl can take. The curriculum also included automotive

manufacturing to encourage the girls to develop interest in non-traditional fields. In her address

to the girls, she said, "we need more women who are studying STEM in school and in college

because — we need you" (LaReau, 2020, para. 6). The partnership is the first of its kind,

connecting young girls to potential employment at GM, and is a considerable push for

sustainability of the future of GM's workforce.

Another point to make about Barra's non-traditional role in automotive manufacturing, is that when she was given the reigns of GM, she was not expected to succeed. This reasoning is due to what researchers call the 'glass cliff,' a term coined by University of Exeter psychologists Michelle Ryan and Alex Haslam. Research suggests that while women can break the glass ceiling and get to the CEO position, they are often promoted there because the risk of failure is really high. This means that the next person in line to the CEO position would absorb the issues that came prior to them, and often women are put in those situations as a scapegoat (Rosen, 2014). The situation that Barra walked into with the massive recalls solidifies that experience that many women feel when they take the helm. Researchers suggest that this can happen for various reasons, but the predominant theory is that men leave positions when times are bad and leadership looks to make a choice to regain consumer support. In the worst examples, once the crisis is over, the female CEO may be forced to step down and replaced by a man (Throp, 2014). This situation is troublesome for women, considering the situations that happened cannot be changed, only corrected.

Barra, however, held fast during the recall crisis and showed the world the importance of diversity within the workforce and the importance of starting early in recruitment for diverse talent. She is transforming the auto industry at lightning speed. Her parting advice to young girls is to try new and different things. She says, "The more things you do, the more confidence you'll gain. Find your passion because when you're an adult you'll be doing it all your life, and science and math will play some part in it" (LaReau, 2020, para. 26). Within the next twenty years, GM wants to hire these young girls to propel the auto industry with new ideas on how to improve manufacturing. Barra is a huge part of the non-traditional role shift.

In addition to supporting non-traditional roles for women, Barra also wants all of her employees to be authentic with her. So much so that she blogs about it using her social media platform. Using LinkedIn Pulse, Barra tweets regularly and posts to Facebook about her work and life (Rosen, 2014). This is in stark contrast to many CEOs who avoid media to control how employees and the world views them. Also, Barra was very upfront about the recall issues that occurred in 2014. She was quick to apologize to the world and accept responsibility. Barra's actions prove that leaders are not perfect and they should not be, but taking ownership of issues when they are in the leadership role means that they can be trusted to fix them too. Being authentic means taking ownership of all good and bad situations (Le Folcalvez, 2014). Along with taking responsibility, quiet and humble leadership are trademarks of Barra. She is also collaborative, crediting her team often for the successes of the organization. Barra has a quiet self-confidence, one that is authentic, that also requires others to be authentic in the same space (Snyder, 2016). Barra believes in an inclusive workspace where people can bring their true selves to work, feeling empowered and engaged in making a difference. An environment where everyone can be themselves is truly an authentic experience.

Table 8: *Attributes of Mary Barra*

Quality Attributes	Mary Barra	Justifications
A1 - Knowing others and trusting teams (Trust)	**5**	**Strong reference to trusting team**
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	**5**	**Strong believer in thought process and expertise of self and others**
A3 - Knowing their own passions (Passion)	**2**	**Not a strong connection to passions related to career**

A4 - Knowing the value of things (Value of Things)	4	**Value of things evident**
A5 - Knowing where they are going (Vision)	4	**Vision is of relative importance**
B1- Empathy for others	2	**Not a strong correlation to empathy, specifically**
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	5	**Strong understanding of non-traditional roles for women, strong quotes**
B3 - Valuing authenticity over perfection	5	**Authenticity of knowing self in career – strong reference**
B4 - Ambition and drive despite negative reactions, resilience	4	**Relative correlation to resilience in work to become better**
B5 - Personal experiences and tragedy change career trajectories	1	**Not a strong correlation to experiencing tragedy**
B6 - Overcome education and experience bias	2	**Not a strong correlation to having to overcome bias**

Safra Catz

Safra Catz has served as CEO of Oracle Corporation since 2014 and has been a member

of the company's board of directors since 2001. She previously served as president of Oracle and

has also served as the company's chief financial officer. Prior to being named president, Catz

held various other positions since starting at Oracle in 1999. She currently serves as a director of

The Walt Disney Company and previously served as a director of HSBC Holdings plc. Catz, 56

years old, holds a Juris Doctor degree from Harvard Law School. Her edge in the business world

is the deep understanding of rules and processes associated with governing large corporations

and political aspects of business. Catz is a unique leader in that her qualities, while relatively

subtle in approach, have been greatly analyzed and studied. Through interviews of those that went to school with her, even back then, she was a very intense and studious student, relying on her own knowledge to advance in the field. Catz spent much of her time focused on her academic pursuits, driven to prepare herself for her future professional goals. She decided to pursue Wall Street over law, which helped Catz focus on expanding industries, including the software company called Oracle. Because of her intense study of industry, she was able to eventually join Oracle in a leadership position. Her leadership skills have been extremely valuable for Oracle, as her economic strategy and finance background can attest. So much so, she is often called "the Enforcer" because of her intensity towards growth of the software firm (WomELLE, 2020).

Along with her expertise comes ambition and a drive to succeed. Catz is very open about the fact that there will be critics in the work that she does, but she suggests to "just take it as noise. Don't let it change your mind. Understand that you are going to be called an idiot, moments before you are called a genius" (Cohen, 2019). This comment is very empowering for future leaders because there is a lot of static noise during the rise to the top, where others will doubt their abilities. Additionally, Catz encourages leaders to ask questions, help make it make sense, so that they are better informed and more knowledgeable about business matters. She also believes that aspiring leaders not "just sit by at a meeting and passively watch a PowerPoint like a dog watching television," which many people do in meetings (Cohen, 2019). Catz believes that true power for leaders lies in their ability to beat the competition and make informed decisions quickly. She offers great advice for why it is important to keep a sense of urgency about work:

If you want to beat the competition and you want to advance your career personally, you

need to make decisions and take actions. If you make decisions quickly, and you make a

mistake, you may have a chance to fix it. [But] if you wait too long, the decision will

make itself, and any change will be impossible (Cohen, 2019).

Many leaders will wait until it is too late to make important decisions, which can eventually lead

an organization to failure. Inaction is worse than wrong action, according to Catz. It is

important to get as much information that can be gathered, and move forward as quickly as

possible. In the business world, there is no room for stalemate.

Catz spends a lot of her time focused on numbers and data, the two most important

materials in operating a software enterprise. She shows a lot of respect towards understanding

the value of things: numbers and data. She details that types of things that go into data, such as

tracking hacking attempts, patching data holes and upgrading systems. The data may also be

understanding customer needs and how Oracle can solve those issues. No matter what data is

coming in and going out, Catz believes that it serves a purpose to solve problems. Being able to

harness data and provide customers with a great experience is helping Oracle become the most

competitive software company in the world (Preez, 2020). The best scenario for leadership is to

find ways to make the business more competitive, yet bringing costs down. The focus for

Oracle, and Catz, is to focus on resources that make the customer have a better experience

(Preez, 2020).

Catz has not been immune to gender inequities in the technology sector. She has a very

direct leadership style, which appears when she speaks about topics she is passionate about. For

instance, at the 2006 Women's High-Tech Coalition in Silicon Valley, Catz told a group of

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aspiring women leaders "you have to be better. You have got to work harder, work longer, be louder," showing that while she sympathizes with gender inequalities, she is very certain that her same path can be replicated for other women (Wharton Alumni Magazine, 2007). Catz often tells women to go and start their own business, noting that "if you can't see a path for leadership within your own company, go blaze a trail of your own"; very strong and direct advice for hopeful women leaders (Business Bigwigs Admins, 2013). She believes gender equality barriers are an illusion, and women should take every opportunity to grow and learn. While inspiring as it may sound, women may find Catz's words to be off-putting, given the reality that many women experience in the workplace.

Catz also does not mince words; when she says something, she means it. In one speech, Catz points to business strategy as the ultimate determination of success of a leader. She believes in being authentic, looking to one's strengths in understanding their business model to make decisions:

> If you want to be fashionable, go shopping. Unless you are in the fashion business, businesses are not always fashionable. Execute your business strategy. Do not automatically change your strategy because some industry analyst has coined a new term that everyone is talking about. He may be wrong, and, two, it may not be right for you. Keep an eye on the market, understand your customers and look at all the new data. But also understand your own strengths and execute on the plan that leverages those (Cohen, 2019).

Catz is a strong believer in the knowledge each person possesses, and being able to harness that knowledge to make important business decisions will separate a leader from others. Catz, in her

own right, is authentic. Some describe her as tough as nails and "Oracle's Secret Weapon,"

which speaks to how she is perceived inside and outside the company (Pimentel, 2019).

Table 9: *Attributes of Safra Catz*

Quality Attributes	Safra Catz	Justifications
A1 - Knowing others and trusting teams (Trust)	2	Not a real strong reference to teams – more on self
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	5	Strong believer in thought process and expertise of self
A3 - Knowing their own passions (Passion)	2	Not a strong connection to passions related to career – self belief
A4 - Knowing the value of things (Value of Things)	5	Strong value of data, information and things related to performance
A5 - Knowing where they are going (Vision)	4	Vision is of relative importance
B1- Empathy for others	1	Not a strong correlation to empathy in work
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	4	Relative understanding of non-traditional roles for women
B3 - Valuing authenticity over perfection	5	Authenticity of knowing self in career– strong reference
B4 - Ambition and drive despite negative reactions, resilience	5	Strong references to resilience when faced with tough decisions
B5 - Personal experiences and tragedy change career trajectories	2	Not a strong correlation to experiencing tragedy
B6 - Overcome education and experience bias	1	Definitely no strong correlation to having to overcome bias in education

Lynn Good

Lynn Good is the CEO of Duke Energy. She is happily married and a mother to two children. In over 30 years of her career, Good has never seen herself as a women CEO, or a woman CFO. For her, it has always been about the work, the passion, and the relationships. Out of North Carolina's top 100 public companies, only five are led by women, and one of those is Good.

As the CEO of one of the largest energy corporations in the United States, Lynn Good knows a lot about customer service and the value of things, such as electricity. She is customer focused – as the end user always experiences the best and worst of electrical connectivity. She believes that the relationship to the customer is more than a bill-pay service, and it is a communication-based trust in delivery of power. She states that "transformation is led by the customer," meaning that the business can improve if customer feedback and response is strong (Good, 2018). In addition to knowing the value of customer feedback, Good believes in the value of electrical infrastructure. She can explain the detail encompassing infrastructure, such as a wiring and pulls, as well as newer and renewable sources of energy requiring technological investment. Good expects Duke Energy to stay on the forefront of technology advancement, with an understanding of how important the value of electricity is to the customer and to the business. She believes leaders should never stop learning, using every opportunity to upgrade their skillset. Afterall, leaders grow by trying new things.

In studying these women holding leadership roles, there is a common theme to many of them, one of which is that aversion to risk or indecision leads to failure. Fighting through the fear of failure, moving with the best intentions in business and career decisions is how a leader

learns trust in themselves and their own knowledge capabilities. Good also started a diversity program that includes something called "Aging in Place" where new employees are paired with seasoned employees to allow transfer of knowledge (Kimer, 2016). With many industries starting to feel the impact of missing trades programs in colleges, Good has made it a priority in her organization to prepare the future workforce. Knowledge transfer, or sharing what expertise has been gained through a lifetime of work, is an important step in closing the employment gap companies may experience.

Good believes that leaders must stay on a steep learning curve to stay ahead of competition from other industries, and also be competitive with one's own capabilities. According to Good, the best time for a leader to rise is during times of distress or crisis in an organization. Through those opportunities, Good believes great leaders are found inside of the chaos, because they have the knowledge to move through the problems. She also believes that understanding a leader's strengths and what roles they play well, will help them to work within teams to achieve high-level goals (WomELLE, 2020).

Sometimes, the fear of failure keeps women from achieving higher roles and ranks in the business world. Trust in one's own ability, thought process and expertise is the opposite of that of fear of failure, which Good knows extremely well. She comments:

[Do not be] afraid to take on a new assignment. Demonstrate some courage when you're asked to do something. When you feel, 'Wow, am I qualified to do that?' Take the assignment. Give it your very best. That reticence to take a risk, in my mind, is more consistent with women than it is with men (Allam, 2018).

When Good talks about her role as CEO of Duke Energy, she prefers to leave the term "woman" out of the title, a strong reference to her belief in non-traditional roles. She would rather be CEO, not female CEO of the corporation. This idea speaks to her feministic worldview, that her abilities are equal to that of a CEO and not a lesser version or marked version with the term "woman" (WomELLE, 2020). Additionally, Good does not believe in a one-size-fits-all approach to work and life balance. She believes that priorities are different for everyone, but finding the balance between parent and leader is what everyone should strive for, especially women. Good also advises women to periodically reassess priorities in life, and make sure it is fair for everyone involved in their lives (Good, 2016). In a uniquely feministic perspective, Good believes in keeping and maintaining strong ties with friends and family as a backbone to hold a person steady throughout their career (Good, 2018). At some point, a leader will evaluate their career trajectory, however Good believes that their support system of loved ones can help them evaluate it as well.

Holding the highest role at Duke Energy, Good attributes it to the unique advice that her parents gave her years ago. She was told that she should not pursue traditional roles, but opt instead for challenging roles that would build and take her through a life-long career (Bryant, 2013). While many women may shrink back on challenging careers, it is important to note that Good did not. However, as mentioned previously, Good believes that relationships should drive the decisions a person makes about their careers and personal life, and the balance that it takes to be successful in both. She advises leaders to "be passionate about what you do, but also be passionate about your relationships and family and other things in life. That's where happiness is. It's not all about career," which is a challenge for a lot of women (Bryant, 2013). Women may put their families first and not take care of their careers, or hold off on having children while

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seeking a career. The individual creates their own balance of priorities. Good, herself, is a great leader and mentor for work-life balance, choosing to speak about success as loving what she does at work, but also being equally satisfied with a family and two sons, which has yet to be noted by any of the other female leaders researched (Kimer, 2016). For much of her career, Good has been mentored by mostly men, so to say she was able to see a pathway laid out to follow would be an incorrect assumption. She hopes, however, that other women continue the climb to the top and lay the foundational path for others that come after (Allam, 2018).

Another key to success for Good is knowing she can survive personal tragedy or drastic change in career trajectory. In a previous career, Good was indirectly involved in the Enron accounting scandal in her role and was eventually terminated when the business closed. Good recognized opportunity in her setbacks. She regrouped and regained more than was lost, becoming one of the few Fortune 500 female CEOs. Her triumph over failure did not mean her career was done. She explains, "it taught me very quickly was that I was the asset, so I had to figure out what I was going to do. It's less about who you work for, and more about what skills you've acquired," meaning that in life, the career path that leaders choose has more to do with their ability to overcome obstacles and learn valuable lessons (Sheerer, 2018). At any time, Good suggests, leaders need to be prepared to go or change careers. While leaders can rely on their own expertise and show great ambition, the key here is that they should not be afraid to pick themselves up and shake off career failures. She comments that being able to shake off disappointments is not disloyalty or not enjoying the job, but it is about knowing that the real asset in the equation is the leader, not the company (Bryant, 2013).

Along the lines of being able to recover from a career impasse, Good gives advice to women to be resilient during a crisis. In order to be resilient, one must press on towards an end

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goal. Good believes that, "you have to persevere and work for the benefit of your employees, your customers, and your community" in order to rise as a leader in the organization (Good, 2016). Adapting and changing is critical for leaders to rise. She further explains that when chaos occurs, there is no time to mourn the situation. A leader must push through the chaos. Employees look to their leaders to set the path and the pace at which goals are achieved, and therefore it is critical that leaders believe in anything is possible. Good states, "I can't come to work thinking it's impossible. I have to come to work thinking that it's possible, and encourage all the people around me," and encouragement, resilience and adaptability are the attributes leaders need to be successful (Sheerer, 2018). Failures breed strength to overcome obstacles and leaders must embody that resilience every single day.

The last strong leadership attribute that Good describes is that of trusting teams. While she admits that she can be extremely focused and driven to succeed, she has learned to slow down her thought process, involve others and provide more detail on projects. She admits that there is nothing wrong with being a more direct leader, but it is equally as important to give employees a chance to talk about the important work that they have in front of them. People being passionate about their work drives Good to success, so she tries to engage them about their passions every day. At some point in a leadership role, it is not about how smart that person is, but it is about how well they engage and work within teams. It is also about how well a leader can lead a very diverse team to success. Leaders are effective if they are good communicators, and they can explain difficult or hard to understand concepts to their team. They must also trust that what is done within their team moves the team toward the goals. As a leader of 28,000 employees, Good believes in "developing a culture of collaboration and inspiring others" to work in the energy sector (Kimer, 2016). Based on initiatives, goals and opportunities that Good seeks

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out, along with her experience in failures and triumphs, she has established herself as a strong leader in her role at Duke Energy.

Table 10: *Attributes of Lynn Good*

Quality Attributes	Lynn Good	Justifications
A1 - Knowing others and trusting teams (Trust)	4	Somewhat strong reference to teams and collaborations
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	5	Strong believer in thought process and expertise of self
A3 - Knowing their own passions (Passion)	1	No correlation to following passions
A4 - Knowing the value of things (Value of Things)	4	Values electricity – supporting customers in a feedback loop
A5 - Knowing where they are going (Vision)	2	Not a lot of information regarding vision of own career
B1- Empathy for others	4	Believes in empathy when working with customers and teams
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	5	Strong understanding of non-traditional roles and women in leadership
B3 - Valuing authenticity over perfection	1	No correlation toward authenticity
B4 - Ambition and drive despite negative reactions, resilience	5	Strong references to resilience when faced with tough decisions
B5 - Personal experiences and tragedy change career trajectories	1	Not a strong correlation to experiencing tragedy
B6 - Overcome education and experience bias	1	Not a strong correlation to experience bias

Liz Wiseman

Liz Wiseman is the CEO of The Wiseman Group, which develops leaders from around the world. Her client list is extensive, focused primarily on larger organizations including Apple, Disney, Facebook, Google and many others. Wiseman is a mother of four and is married to Larry Wiseman, who is the CFO of her current company. Wiseman graduated from Brigham Young University with a bachelor's and master's degrees. Liz Wiseman climbed up to the vice president of Oracle, where she remained for 17 years. She notes that her job at Oracle became easy; she was very knowledgeable and could do the job but had lost her passion for it. She started as very inexperienced at Oracle, but believes that this lack of knowledge helped her to strive to learn. Sometimes, inexperience can be a personal asset, by helping see the business from an outsider's perspective (Wiseman, 2019). While she enjoyed her job there, she was inspired to start her own company called The Wiseman Group, training leaders for major corporations all over the world. By searching herself and analyzing her passions, Wiseman then wrote a book. In her book, *Multipliers*, Wiseman writes about a basic theme of leadership which is that the best leaders make everyone smarter (Wiseman & McKeown, Multipliers, 2010, p. 104). Through her research and self-searching, Wiseman rediscovered her passion and now teaches employees and leaders around the world how to embrace the leadership role. While passion is a hard thing to explain, knowing their own passion is an important quality for leaders. They are not afraid when change needs to happen, following their passions to other opportunities. This change was evident in Wiseman's life, going from a secure executive level job at Oracle to a self-employed trainer and author. She has been extremely successful since then, and is also a well-known author of leadership books.

Wiseman focuses a lot of her energy and time on building teams. As she does leadership training, she explains that the most important thing a leader can do is recognize the work of their team. In Multipliers, Wisemen offers, "leaders should look beyond their own genius and focus their energy on extracting and extending the genius of others." This means not relying on their own thought process and expertise as much as the collective efforts from the team (Wiseman & McKeown, Multipliers, 2010, p. 11). This ideal is important to many leaders, as it derives from an element of mutual trust and understanding. Along these same ideal, Wiseman believes that people are incredibly smart and will figure out how to solve problems. A leader's job in the problem solving is to "challenge the assumptions and reframe the current problems," so that employees can start to create solutions (Wiseman & McKeown, Multipliers, 2010, p. 109). Wiseman holds the idea that leaders can either be multipliers or diminishers, or, people who successfully build teams and those who do not. Some of the key aspects of multipliers, or leaders who succeed, include:

1) They can attract talented people and use them at their highest point of contribution.

2) They create an intense environment that requires people's best thinking and work.

3) They define opportunities that cause people to stretch.

4) They drive sound decisions through rigorous debate.

5) They give other people ownership for results and invest in their success.

(Wiseman & McKeown, Multipliers, 2010, p. 23)

Wiseman offers that key aspects of diminishers, or leaders who fail, include:

1) They hoard resources and underutilize talent.

2) They create a tense environment that suppresses people's thinking and capability.

3) They give directives that showcase how much they know.

4) They make centralized, abrupt decisions that confuse the organization.

5) They drive results through their personal involvement.

(Wiseman & McKeown, Multipliers, 2010, p. 23)

Being a leader requires good communication, as well as teamwork, which is the main focus of Wiseman's beliefs on leadership. Wiseman also offers that leaders should try to become a multiplier because it reduces stress. It also allows others to take ownership of the decisions made and prevents leaders from becoming micromanagers. In Wiseman's words, "simply put, when you invite people's best thinking… your team will give you more – more discretionary effort, more mental and physical energy, and more of the fresh ideas critical for long-term success" (Wiseman & McKeown, 2010, p. 5). Another aspect to teamwork that Wiseman discusses is the idea that people are always changing their levels of smart. It is not a question of if someone is smart, but rather, what kind of smart is this person? The multiplier, or leader in this case, can bring "the right people together in an environment that unleashes their best thinking – and then stay out of the way" (Wiseman & McKeown, 2010, p. 2). Allowing for the team to mesh together in a natural, uninhibited way is a great leadership quality to possess.

Another key aspect to Wiseman's leadership abilities is being empathetic to others. In an interview, Wiseman explains what it is like to work for a boss who wants big results but provides no safety. This type of work situation is much like working for a tyrant, where failure is highly admonished but success is mandated. In this type of environment, employees do not succeed. Wiseman suggests that if a leader is going to have big goals and drive towards success, they also need to allow failure (Wiseman, 2019). Big wins come from practice and failures, and leaders know how to accept all of the steps that lead to winning. Understanding that people are far from

perfect and want to do their best work is a part of leading with empathy. After doing a research study, Wiseman found that multipliers listened, communicated, had vision, trusted and empowered when it came to teams (Wiseman, 2015). These leaders, above all, showed empathy for their teams and tried to connect with them at the most basic level. In fact, leaders give their employees space in return for their best work. There is some overlap here with trusting in teams and teamwork, however, understanding what employees need to be successful on a deeper more meaningful level requires empathy and better intuition to their needs.

While Wiseman does not speak specifically on gender inequality, she does exemplify non-traditional roles for a woman CEO. Rising to the top of leadership at Oracle and starting her own company gave Wiseman a huge sense of personal satisfaction, however, she also practices mindful decisions regarding her personal life. While working, she raised four children along with her husband, Larry. Larry is the chief operating officer and financial officer for The Wiseman Group. She has made it a priority to reserve evenings and weekends for her family, and works to maintain a family life balance. A highly successful professional, Wiseman has etched her own path towards leadership.

Table 11: *Attributes of Liz Wiseman*

Quality Attributes	Liz Wiseman	Justifications
A1 - Knowing others and trusting teams (Trust)	5	Strong reference to team building and collaboration
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	2	Not a lot of emphasis on personal achievements

A3 - Knowing their own passions (Passion)	5	**Strong correlation to leaving a job because of a lack of passion**
A4 - Knowing the value of things (Value of Things)	1	**No correlation to valuing things**
A5 - Knowing where they are going (Vision)	4	**Relative correlation to vision of company and future self**
B1- Empathy for others	5	**Strong emphasis towards teams and empathizing with employees**
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	4	**Somewhat understands non-traditional roles – employs husband as COO, 4 kids**
B3 - Valuing authenticity over perfection	4	**Some correlation to authenticity, showing up as oneself**
B4 - Ambition and drive despite negative reactions, resilience	5	**Strong references to resilience when faced with tough decisions about career**
B5 - Personal experiences and tragedy change career trajectories	4	**Impacted by personal experiences to change trajectory**
B6 - Overcome education and experience bias	2	**Not a strong correlation to experience bias**

Arianna Huffington

Arianna Huffington is a Greek/American, rising to CEO positions in news and leadership thought. She worked in politics and ran for governor of California. She is a divorced mother of two, born in 1950. Originally from Greece, she moved to England when she was a teenager and graduated from University of Cambridge where she earned a B.A. in economics. Huffington is a co-founder of The Huffington Post, the founder and CEO of Thrive Global, and the author of

fifteen books. She has been named to Time Magazine's list of the worlds' 100 most influential people and the Forbes Most Powerful Women list.

One of the important qualities that Arianna Huffington exhibits and also expects her team to recognize is the value of things, specifically information. In editing and publishing one of the largest news outlets in the world, the Huffington Post, Huffington knows the power of words and information that is delivered to the masses. She does focus a lot of her efforts on defining and redefining the use and importance of technology. She asks questions about technology and poses, "does it deepen the experience or does it diminish it? Clearly it can do both." This leads to the other question of: "Can all the different facets of technology help the consumer better consume news and information or does it take some of the importance away if it is always accessible (Huffington, 2014, p. 183)." By asking those hard, theoretical questions to herself and her employees, she has determined that the technology will always change, but the need to understand each other will never change. Through understanding the value of information, of ideas and news, Huffington believes that technology is a great vehicle and tries to tie it to the human experience. News is not chatter to Huffington; it is small bits to be absorbed and experienced through the human lens. By adding this human element to the value of things, Huffington connects the dots to how leaders should think about their products.

Huffington is an interesting leader to research because a lot of her basis of leadership attributes are not typical of the general ones, mentioned in earlier chapters. Her focus is mainly on the human condition, with a focus on wellness and empathy for the self and others. Since empathy is a huge component of her leadership style, many of her interviews and written works focus on the integration of mindfulness into work. In her book, *Thrive*, Huffington details the price employees pay for work, saying "women in stressful jobs have nearly a 40% increased risk

of heart disease and a 60 percent greater risk of diabetes" (Huffington, Thrive, 2014, p. 4). While the working environment is becoming more inviting to women, it is reported that it is becoming increasingly more stressed, according to Huffington. More companies are awakening to the fact that their employees' health adds up to the overall company's health. Huffington equates taking care of oneself in terms of flying:

> As they say on airplanes, secure your own oxygen mask first before helping others. Leaders need to live and work in a way that can bring out the best, most empathetic part of themselves, and that will be a key driver in whether they can bring out the best in those they lead (Schner, 2020).

The real point the Huffington is making is that showing themselves empathy in the face of exhaustion will also allow leaders to show their employees empathy. Leaders model what they expect in return in a great work environment. Huffington tries to create an environment where employees are encouraged to express their thoughts, positive or negative, and be engaged in the day to day challenges that the company faces. At Thrive, one of Huffington's companies, this type of work atmosphere is called 'compassionate directness,' where employees can give unsolicited feedback at any time. There is a lot of work that goes into making a work environment a supportive one, including being open to talk about family issues and also not expecting immediate replies for emails after work during the week, or weekends. That type of encouragement for employees is modeled in Huffington's behavior to her team but also to herself (Schner, 2020).

Another positive quality trait that Huffington exhibits is resilience, or as otherwise called ambition and drive. Huffington believes that resilience is not a limited resource, nor is a person

born automatically knowing how to be resilient. The hard part, she says, is when a person has to

call upon their resilience and nurture it through self-reflection. Huffington by her own account

has fought through adversity when she suffered a severe facial injury, falling in her office due to

exhaustion. Since that time, she has focused a lot of her own self-discovery towards creating a

balance of work and rest. This mantra also plays a part in her understanding that others may feel

the same way at times and need rest from work. Tapping into her own resilience, she is able to

help others discover theirs too. In an interview, she discusses the importance of finding the drive

to keep going, and that rest and recovery play a huge role in the development of resilience

(Schner, 2020). Leading multiple companies took its toll on Huffington, and now she is a firm

believer that ambition and drive can coexist with rest and self-reflection. Through her own

troubles, she fully became aware of the importance of balance.

Huffington spends much of her time in her book, *Thrive*, discussing women's issues

related to leading and balancing life. She knows firsthand that when women become mothers,

their workplace experience can become even harder. An example of this she says, is that

companies do not always provide the support working mothers need to maintain their homes and

their regular full-time jobs. Therefore, she believes that teleworking, flexible schedules and

work/home balance are key to productivity of her team and for all employees (Huffington, 2014).

In another interview, Huffington shares a belief that many women feel they are forced to choose

between being successful at home or work, and that can lead to women leaving corporate jobs at

a high rate (Lambert, 2020).

The last quality that Huffington expresses as important in leadership is encouraging

people to be authentic. In many of her writings, Huffington talks about her fear of not being

good enough in appearance and not feeling smart enough to do her work. In her book, *On*

Becoming Fearless...in Love, Work, and Life, Huffington explores her feelings of failure in areas of her life as well as being scared of the future. She writes:

> My mother, who lived with me most of my life – through my marriage, childbirth, and divorce – died in 2000. Her death forced me to confront my deepest fear: living my life without the person who had been its foundation. I did lose her, and I have had to go on without her. But the way she lived her life and faced her death have taught me so much about overcoming fear (Huffington, 2006, p. Intro).

Through her fear, however, Huffington has learned to show up each day as her most authentic self. She goes on in the book to speak truth about fear and how women respond to it:

> Beyond the major moments of fear in our lives, there are many other times we sacrifice our personal truth to go along, be approved of, or just plain be "nice." Because despite all our advances, there's still a huge premium on women being "accommodating" and "team players" who don't rock the boat (Huffington, 2006, p. Intro).

To combat the fears that exist, Huffington provides a light:

> Fearlessness is about getting up one more time than we fall down. The more comfortable we are with the possibility of falling down, the less worried we are of what people think, and if and when we do, the less judgmental of ourselves we are every time we make a mistake, the more fearless we will be, and the easier our journey will become (Huffington, 2006, p. Intro).

Becoming fearless in all areas of life is a long-term goal of Huffington. She offers guidance for women, and men, in the areas of being fearless; of being the most authentic version of themselves so that they can lead a meaningful and full life.

Table 12: *Attributes of Arianna Huffington*

Quality Attributes	Arianna Huffington	Justifications
A1 - Knowing others and trusting teams (Trust)	4	**Reference to team building and collaboration**
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	2	**Not a lot of emphasis on personal achievements**
A3 - Knowing their own passions (Passion)	2	**Not a lot of correlation to passions**
A4 - Knowing the value of things (Value of Things)	4	**Relative importance – information and news shared**
A5 - Knowing where they are going (Vision)	4	**Relative correlation to vision of company and future self**
B1- Empathy for others	5	**Strong emphasis towards teams and empathizing with employees**
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	5	**Strong understanding of women's issues – non-traditional roles**
B3 - Valuing authenticity over perfection	5	**Strong correlation to authenticity in actions – self-care**
B4 - Ambition and drive despite negative reactions, resilience	2	**Not a strong association to negative reactions**
B5 - Personal experiences and tragedy change career trajectories	5	**Extremely impacted by personal experiences to change trajectory – injury**

B6 - Overcome education and experience bias	5	Strong correlation – constant fear of not being good enough – has a bachelor's degree

Pamela Tripp

Pamela Tripp is an experienced health educator, thought leader, senior executive and turnaround CEO. She is founder of Corporate Transcendence LLC, driven to assist organizations develop their leaders within. She is married, lives in Dunn, NC and went to South Johnston Highschool. Pamela Tripp is a relatively unknown leader in the modern business world, yet her contributions should not go unnoticed. She has made a name for herself in the world of healthcare within North Carolina. Within a span of six years, Tripp led a bankrupt organization to achieve the North Carolina Governor's Malcolm Baldridge First Milestone Award. In addition to that accomplishment, her organization, CommWell Health, has received more than 36 national service excellence awards for best practices, patient satisfaction, and healthcare innovation (Tripp, 2016). Much of Tripp's focus is in creating a work culture that is supportive of teams and patients.

Through this culture shift Tripp was able to create teamwork, and trust in teams was infused back into the workplace. In her book, The Culture Shift, Tripp explains that the real "power of a team is more powerful than one," meaning that a person cannot do it all alone and teamwork is how big visions become reality (Tripp, 2016, p. 84). There is a lot of intention that goes into bringing about cultural shifts in organizations that are struggling. Tripp believes that "leaders create an environment that supports and draws the best qualities from their colleagues," yet when she took over CommWell Health it was not a positive environment (Tripp, 2016, p. 115). One of the first things that Tripp did was open communication with all staff from top to

bottom. She created an environment where people felt heard and their concerns about the direction of the organization were discussed. In order to accomplish this goal, Tripp made a point to refer to those in the organization as peers. In her words, "we intentionally referred to each other as colleagues rather than employees," showing those in the organization that everyone is human, valued and important to the overall health of the organization (Tripp, 2016, p. xxvi). By taking initiative to engage with her staff, Tripp created an environment where communality was important. A part of honoring the relationship of colleagues is empowering them to do more than they think they can do, pulling together for common goals. In her words, "empowering leaders requires trust and a relinquishment of perceived or actual power. In order for others to become leaders the leaders must create the conditions and environment for that to happen," meaning there has to be some sort of break in hierarchy such that if there are issues, they can be discussed openly with ideas on how to go in a new direction (Tripp, 2016, pp. 123-126). Tripp is a great leader because she empowers others to lead the organization with her.

Another quality trait of Tripp's is her empathy of those within her organization. She believes that striving for empathy, or attempting to understand the basis of other people's motivations, beliefs and personal reality, creates the opportunity for a leader to move ideas forward to solve problems. In her words, "empathy can transform leaders into powerful change agents but it can transform the business itself," and this impact of business transformation can be witnessed in the redirection CommWell Health took under her leadership (Tripp, 2016, p. 59). Empathy is more than listening to other people's issues. In addition to listening, empathy requires acknowledgement and understanding, as well as a response. To become good at showing empathy, leaders have to practice. According to Tripp, "empathy practice must be intentional and start with the leaders of the organization," and with practice, empathy trickles

down through to employees at all levels (Tripp, 2016, p. 66). Healthcare organizations are science-based, highly technical companies. They require precise evaluations, quality reporting and the utmost care in terms of patient experience. Without empathy for employees who have to operate under stressful conditions, leaders can lose touch with the actual reality of the hard work that is needed to be successful. Tripp personifies empathetic leadership, and encourages all of her colleagues to do the same regardless of their position.

Another strong quality of Tripp is her value of things, or the product from her organization's efforts. The product in a healthcare organization is always the people. Patients are people and their value of them as product and customers is very important. If people are the products, then valuing their experience will help leaders readjust and adapt to a more patient-focused operation. As Tripp explains, humans are the product and "valuing others is vital as we represent an industry of healing arts, caring and service to human beings" (Tripp, 2016, p. 9). The core competency of valuing things that Tripp is referring to is establishing a value of what is produced, and in case of healthcare, it is a healthy patient.

Overall, healthcare is a high-stress, high-input and output field. Patient-centered environments thrive while bottom line focused organizations do not. With care, empathy, and a focus on the human experience, leaders in healthcare organizations can adapt to practices that will return the highest yield on their investment. Yield comes in patient satisfaction surveys, return visits, referrals of family and friends, and most important a healthy patient. Through strong leadership, Tripp has created a synergistic work environment for her colleagues as well as her patients.

Table 13: *Attributes of Pamela Tripp*

Quality Attributes	Pamela Tripp	Justifications
A1 - Knowing others and trusting teams (Trust)	5	Strong reference to team building and collaboration
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	2	Not a lot of emphasis on personal achievements
A3 - Knowing their own passions (Passion)	4	Relative emphasis on being passionate in careers
A4 - Knowing the value of things (Value of Things)	5	Strong reference to things, people that are patients are the product
A5 - Knowing where they are going (Vision)	2	Not a lot of emphasis on being visionary for the self
B1- Empathy for others	5	Strong emphasis towards teams and empathizing with employees, patients
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	2	Not a lot of information about female leadership
B3 - Valuing authenticity over perfection	2	Not a lot of information about being authentic
B4 - Ambition and drive despite negative reactions, resilience	1	Not a strong association to negative reactions
B5 - Personal experiences and tragedy change career trajectories	1	Not a strong correlation to personal tragedy
B6 - Overcome education and experience bias	1	Not a strong correlation to having to overcome bias

Jaclyn Kostner

Jaclyn Kostner is the CEO of Bridge the Distance, a virtual leadership training company that caters to large organizations. She is an author and studied at the University of Denver, and lives in Denver, Colorado. She works with clients all over the world to help create and sustain virtual teams. She has delivered hundreds of keynote addresses at conferences and is relevant for today's global and virtual work environments. Jaclyn Kostner is no stranger to virtual work, and started the conversation in the late 1990s. She published a book focused on the virtual team environment called, *Bionic eTeam Work*, collecting best practices for effectively leading virtual teams. The reason why Kostner is a good leader to study is because a lot of her work has been to increase the effectiveness of teams in highly technical roles for Fortune 500 companies. She is considered a world-leading expert in how virtual teams operate, leading her own successful organization named Bridge the Distance. As the world moves to more online teamwork, Kostner is more relevant today than ever before. She consults for SAS Airlines, Dow Chemical, Hewlett-Packard, Xerox, IBM, Merrill-Lynch, Microsoft, Ford, and many other highly technical traditional and non-traditional manufacturing environments. Kostner tackles seemingly heavy questions regarding the ability of teams to manufacture quality products completely or partially virtually, led by visionary yet flexible leaders.

Having analyzed how teams work best, one of Kostner's strongest quality attributes is trusting in teams. According to Kostner, connection and relationship building are necessary for any team to be successful. In her book, *Bionic eTeamwork*, she writes "relationships and teamwork are critical for every team. Just plugging in isn't teamwork" (Kostner, 2001, p. 42). Kostner explains that relying on a company email account does not create a team. The idea is simple; people, communication, and trust make up a team. Email is simply a vehicle that allows

easy communication across an organization. Email, in and of itself, is not communication.

Many leaders rely too much on email to lead, making their efforts in a digital world seem more

unapproachable. The dilemma with virtual teams is how to communicate effectively across the

board, yet still engaging team members toward common goals and vision. In her book, *Virtual*

Leadership: Secrets from the Round Table for the Multi-Site Manager, Kostner suggests that

leaders need to go to a deeper level of reflexivity, and question key aspects such as their own

sense of identity as leaders, relationships, trust and power, in order to break down the barriers of

engagement (Kostner, 1994).

In *Bionic eTeamwork*, Kostner takes the idea of how teams should world to a personal

level, creating a fully empathetic working environment. Along the lines of relationship building,

empathy in a virtual world takes a lot more time and effort. Kostner believes that empathy is

built by seeing someone as a human. She suggests to "remember people by name and say thank

you. Create and develop relationships by being as interactive as possible," which can be

challenging (Kostner, Bionic eTeamwork, 2001, p. 38). Imagine the only interaction for leaders

and team members is within email. Nuances, such as tone, can be lost without effective writing.

By building some rapport with employees, seeking personal information and offering true

connectivity, a deeper level of empathy is created within teams. According to Kostner, leaders

should take every opportunity to build humanity in virtual teams, even more so than in face-to-

face teams, because it can be missed over email exchange. In the worse cases, the lack of

humanity within a work group can create unnecessary stress, such as coworkers who overanalyze

emails for perceived snide remarks. Kostner believes that trust is built and given by empathizing

with others, thereby creating the glue that holds teams together in an ever changing,

technologically driven world.

Kostner adopted a vision to see the future of work and laid a solid foundation for virtual teamwork today, before it was discussed that being a visionary leader is important. As Kostner's career expanded to assist top organizations across a variety of sectors, she kept a keen eye on the future of work. In the 1990s, Kostner was producing articles and publishing books outlining best practices for leaders managing virtual teams. With today's current events in a global pandemic, the need for virtual team work has become a top priority for all industries to some extent, and to the highest extent for technology, education and service sectors. Properly deployed, technology can be an effective tool for collaboration. According to Kostner in an interview about virtual connectivity, engagement is very complex, and everything about virtual connectivity has to be centered around engagement (Kostner, 2020). Through online work, leaders can encourage active engagement by hosting effective webinars, requiring feedback on team-based projects during live chats, and building relationships with team members individually outside of group meetings. Even back in the 1990s, Kostner articulated the importance of effective teamwork in a virtual environment. Because of her research into best practices early on, these resources are available today for leaders and team members. Another aspect to Kostner's visionary traits is her belief that without proper training, people fail. The importance of how training relates to vision, is that in order to create new products and achieve new goals, team members must be trained before rollouts of these initiatives occur. Kostner discusses how when leaders create a vision and work towards implementation, communication breakdowns can occur. The important part to understand from Kostner's perspective is that leaders may forget to properly train their employees on the future of their business (Kostner, 2020). It is important for visionary leaders to always bring their people along for the ride, making sure they understand the overall goals and how they can do their part to help the organization arrive to achieve its mission, seamlessly.

Through her work with training organizations, Kostner effectively explained her visions of what a virtual team environment would look like long before it was a reality. Her work through her own vision has laid significant groundwork for what will be the future of teamwork and collaboration.

Table 14: *Attributes of Jaclyn Kostner*

Quality Attributes	Jaclyn Kostner	Justifications
A1 - Knowing others and trusting teams (Trust)	5	**Strong reference to team building and collaboration**
A2 - Knowing their own thought process and expertise (Thought process and Expertise)	4	**Some emphasis on being knowledgeable**
A3 - Knowing their own passions (Passion)	2	**Not a lot of reference about passions**
A4 - Knowing the value of things (Value of Things)	4	**Some references to understanding value of things – virtual technology**
A5 - Knowing where they are going (Vision)	5	**Strong emphasis on being visionary – technology changes**
B1- Empathy for others	5	**Strong emphasis towards teams and empathizing with teams**
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	1	**Not a lot of information about female leadership**
B3 - Valuing authenticity over perfection	2	**Not a lot of information about being authentic**
B4 - Ambition and drive despite negative reactions, resilience	2	**Not a strong association to negative reactions**
B5 - Personal experiences and tragedy change career trajectories	1	**Not a strong correlation to personal tragedy**

B6 - Overcome education and experience bias	1	Not a strong correlation to having to overcome bias

Summation of Attributes for Successful Female Leaders

Female leaders mentioned in this research were evaluated based on the general leadership traits, as well as specific female perspective traits. General leadership traits included:

1) Knowing others and trusting teams (Trust)

2) Knowing their own thought process and expertise (Thought process and Expertise)

3) Knowing their own passions (Passion)

4) Knowing the value of things (Value of Things)

5) Knowing where they are going (Vision)

During the evaluation of female leadership qualities, the following attributes were derived by collecting qualitative evidence:

1) Empathy for others

2) Understanding of complex gender roles, and assigning non-traditional roles to partners

3) Valuing authenticity over perfection

4) Ambition and drive despite negative reactions, or resilience

5) Personal experiences and tragedy that changes career trajectories

6) Overcome education and experience bias

These female leadership traits were derived from biographies, writings, speeches and interpretations of complex thoughts by female leaders researched. Each female leader was evaluated on a Likert scale, based on their strongest expressed characteristics in general

leadership traits and female leadership. This evaluation does not assert that female leaders value certain quality attributes. It assesses the frequency and depth to which they discuss their agreement to the attributes within the resources that were used during the qualitative research process.

When assessing these women on top traits in leadership, they were given a Likert scale rating which appears at the end of each qualitative assessment. Justification notes are provided as a summation of the depth of qualitative analysis. Because there was a lot of information to provide to develop a qualitative profile, the numbers are directly correlated back to the original text.

CHAPTER 5: IMPLICATIONS AND CONCLUSIONS

Key Findings

Information in Table 15 was derived from the assessments of each female leader evaluated in this study along with their agreement among attributes researched. Likert scale ratings: (1 to 5) 1=Strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly Agree

Table 15: *Agreement of Female to General Leadership Attributes Table: The level of agreement (1 to 5) to which female leaders closely align to quality attributes*

	A1 - Knowing others and trusting teams (Trust)	A2 - Knowing their own thought process and expertise (Thought Process and Expertise)	A3 - Knowing their own passions (Passion)	A4 - Knowing the value of things (Value of Things)	A5 - Knowing where they are going (Vision)
Melinda Gates	5	2	4	1	5
Sheryl Sandberg	5	5	4	2	5
Karen Aiach	5	4	4	5	2
Mary Kerr	5	5	5	4	4
Jean Cunningham	5	2	1	5	2
Mary Barra	5	5	2	4	4
Safra Catz	2	5	2	5	4
Lynn Good	4	5	1	4	2
Liz Wiseman	5	2	5	1	4
Arianna Huffington	4	2	2	4	4
Pamela Tripp	5	2	4	5	2
Jaclyn Kostner	5	4	2	4	5

Information in Table 16 was derived from each female leader evaluated in this study along with their agreement among attributes researched.

Table 16: *Agreement of Female to Female Leadership Attributes Table: The level of agreement (1 to 5) to which female leaders closely align to quality attributes*

	B1- Empathy for others	B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	B3 - Valuing authenticity over perfection	B4 - Ambition and drive despite negative reactions, resilience	B5 - Personal experiences and tragedy change career trajectories	B6 - Overcome education and experience bias
Melinda Gates	5	5	5	1	2	1
Sheryl Sandberg	4	4	5	4	1	2
Karen Aiach	4	4	1	5	5	5
Mary Kerr	4	4	5	1	5	1
Jean Cunningham	4	4	4	5	1	1
Mary Barra	2	5	5	4	1	2
Safra Catz	1	4	5	5	2	1
Lynn Good	4	5	1	5	1	1
Liz Wiseman	5	4	4	5	4	2
Arianna Huffington	5	5	5	2	5	5
Pamela Tripp	5	2	2	1	1	1
Jaclyn Kostner	5	1	2	2	1	1

From the data collected, a compounded bar graph as shown in Figure 2, was created to show how frequent these leadership traits occur and to what degree they are expressed by the female leaders.
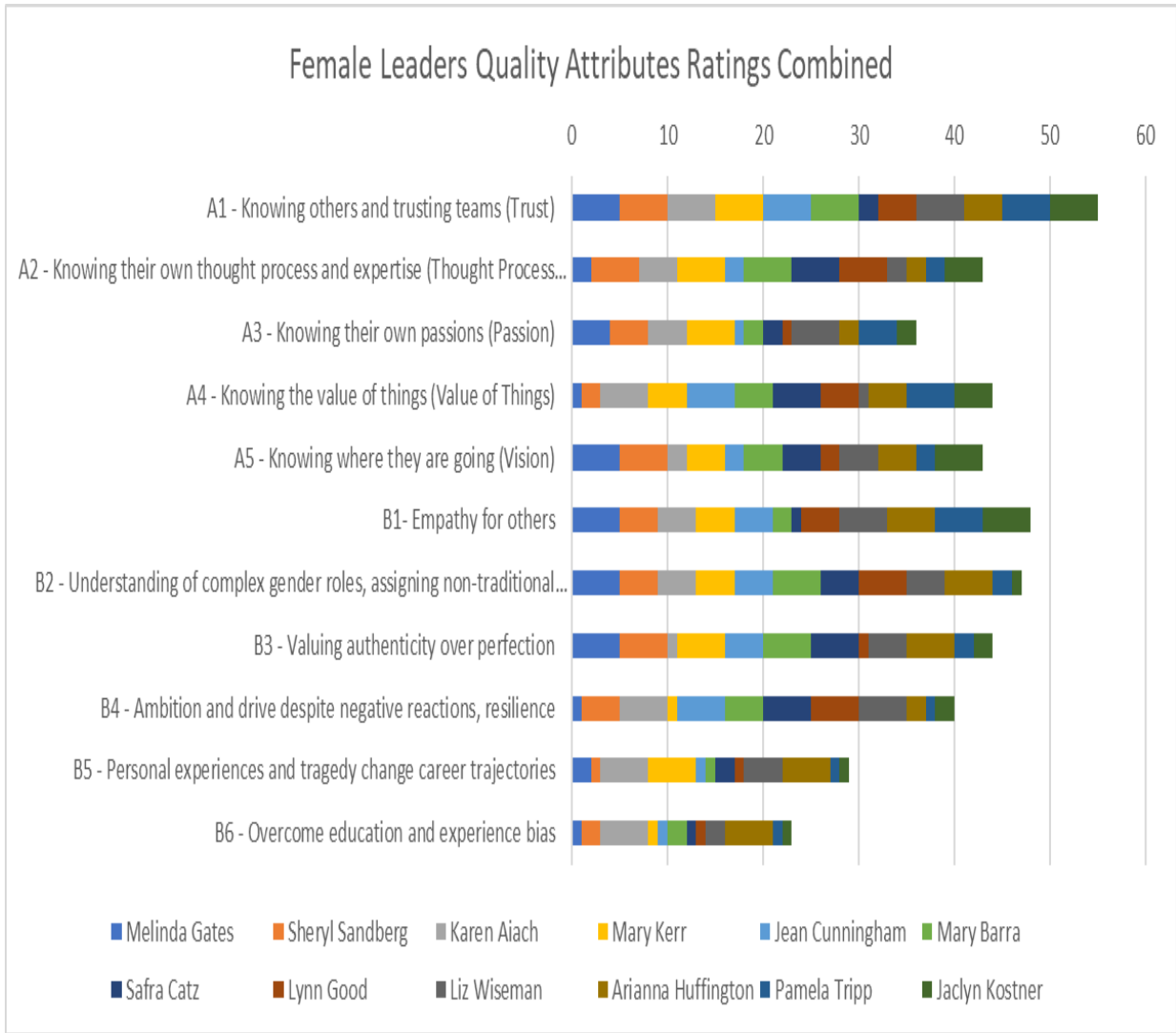
Figure 2: *Agreement of Female Leadership Attributes Figure*

Once this data was graphed, Table 15 and Table 16 were analyzed further, using standard

calculation formulas within Microsoft Excel. The summary is the addition of all responses using

the assigned Likert numbers. Table 17 was sorted high to low based on summary (sum of Likert

points). The average is the average importance of a quality attribute. The mode is the most

frequent occurrence of certain Likert scores among leaders. The standard deviation is how much

the numbers are spread out from one leader to another.

Table 17: *Calculations of Female Leadership Attributes Table*

Quality Attributes	Summary of Attribute Importance	Average Relative Importance	Mode (repeating occurences)	Standard Deviation	Findings
A1 - Knowing others and trusting teams (Trust)	55	4.58	5	0.90	Most agreement, highest ranking among all
B1- Empathy for others	48	4.00	5	1.28	Second highest ranking among all
B2 - Understanding of complex gender roles, assigning non-traditional roles to partners	47	3.92	4	1.24	Third highest ranking among all
A4 - Knowing the value of things (Value of Things)	44	3.67	4	1.50	Tied - Fourth highest ranking among all
B3 - Valuing authenticity over perfection	44	3.67	5	1.67	Tied - Fourth highest ranking among all
A2 - Knowing their own thought process and expertise (Thought Process and Expertise)	43	3.58	2	1.44	
A5 - Knowing where they are going (Vision)	43	3.58	4	1.24	
B4 - Ambition and drive despite negative reactions, resilience	40	3.33	5	1.78	Tied for most diverse responses
A3 - Knowing their own passions (Passion)	36	3.00	4	1.48	
B5 - Personal experiences and tragedy change career trajectories	29	2.42	1	1.78	Tied for most diverse responses
B6 - Overcome education and experience bias	23	1.92	1	1.51	Least acknowledged trait

From the data collected and graphed, conclusions can be drawn that establish the most important quality attributes, attributes that have low scores, and the amount of congruence or noncongruence among all leaders in an attribute. The most important quality attribute to leaders is the ability to know others and trust their teams. This attribute, regardless of any industry or job title, is important to make sure that whatever is being produced is being done by people who feel connected to the overall goal. Trusting other team members with a portion of the work is

essential to achieving goals. The next most important quality attribute to leaders is the ability to

empathize with others. Empathy, or seeking to deeply understand individuals, is a valuable asset

in cut-throat technological industries. The next most important quality is understanding complex

and non-traditional gender roles. Many leaders stated that they need a work and home life

balance, with supportive partners and family to find that balance. Next, there is a two-way tie

with valuing authenticity over perfection and knowing the value of things. Authenticity is

something a lot of women struggle with, according to the leaders evaluated. Also, knowing how

things are valued is important to driving business success. However, things can be information,

data, electricity, people or anything that is considered the end product for the customer.

Looking at the standard deviation from the top attributes, there exists more uniformity in

these traits compared to other traits measured. For example, the standard deviation for trust as a

quality attribute was 0.90, meaning that the vast majority of the female leaders researched place

a high regard on this principle. The most diverse in responses came from the

ambition/drive/resilience value and personal experience/tragedy value as important. The

standard deviations for both of these values were 1.78, meaning there were extreme agreement

and non-agreement among female leaders. This could be due to the fact that few people

experience tragedies or resilience factors that impact their careers in a major way. Many of the

female leaders had the necessary education and experience to do the job they accepted. There

was quite a variation in responses, with a 1 score repeated for most leaders. One reason why

these could be low is that most of the female leaders have to earn more degrees and have to

accumulate more experience to get to the top level of their companies. There was one female

leader that climbed to the top position that experienced extreme bias because of her education

and experience. However, it is important to note that many ladies do not become leaders of

organizations if they do not have at least, if not more, education and experience than their male counterparts (Kvochko, 2016). As a reminder, the lower the scale score, the less impact that particular attributes had on a leader's experience. The higher the score, the greater the impact of that attribute.

Conclusions

Each one of these characteristics researched in this thesis is the foundation of the technology leader's potential, specifically the twelve female leaders included in the study. While success cannot be assured in any climb to the top of an organization, a foundation for best practices in leadership can be modeled. To be successful, all of these quality attributes are excellent starting points for professional development. Great advice to aspiring female leaders would be to take on positions that require teamwork and teambuilding. Through practice, training, failing and succeeding at teamwork, a person can learn valuable lessons in trust. Also, future leaders should do internal reflection as to their own emotional connection to empathy. People prefer connections on a heart-to-heart level. Aspiring female leaders should place a high stress on emotional intelligence, understanding that empathy plays a huge role in how a leader leads people. One consideration would be to practice empathy with others each day and observing and analyzing the outcome to get some take-aways for improvement. Lastly, aspiring female leaders should research to understand complex gender roles in society. If leaders do decide to have a personal partner in life, they should seek out a balance of roles at home and in every aspect of their lives. Having realistic expectations for a partnership is key to relationship happiness and work satisfaction. Also, females should know that more resilience will be needed for some executive positions due to the glass ceiling that currently exists. With the right mindset, a female can be a strong, effective leader of a technology company or any large

organization, but it requires ambition, a variety of skills, taking risks, partner support, and trust of others. Women have advantages of empathy and teamwork across the board. If organizations were surveyed on the importance of both of those traits in the workplace among women and men, most industries would rank them as high attributes as well. Leadership is a collection of skillsets and attributes, practiced each day over the course of many years. Leadership, at its core is the ability to reach the highest self; not just in work, but in personal life too. The goal is to continue to rise and bring other aspiring female leaders in the journey – there is definitely room at the top for more of them. It is the author's desire that this research will help create ideas for women aspiring to reach higher levels of leadership.

Relevance

The significance of this thesis and its findings is two-fold. First, through reading and researching successful women in technology fields, there are a lot of areas that have been worked on over the years that benefit the author's professional development. Areas that are strong for the author are expressing empathy towards others and following one's passion in biotechnology and higher education for meaningful work. There are also areas that need development in order to move into higher leadership roles. These developmental areas are working in teams and trusting others in their work, as well as building knowledge and expertise in the areas of biotechnology and higher education.

Secondly, through writing this thesis the author's skill in researching and extrapolating meaningful data from written sources has been improved. Inferences are difficult to make, comparing what people intend versus what they actually show as leadership attributes. The attributes chosen were a great start to assessing leadership across genders, and perhaps across

organizations related and unrelated to technology. For example, this research could be useful for educational leaders, but the results may vary depending on the sector assessed. Therefore, a study could be conducted using this research framework with new or different attributes, male and female assessments, and various sectors of work to develop a more rounded view of current leadership theory.

Shortcomings

One of the shortcomings of this thesis is the selected number of general leadership attributes. As mentioned in the beginning, other attributes could be as important as the five general and six female attributes derived from research. Also, there are limitations in that the full scope of the female experience in leadership roles is much broader. Humans are complex, so adding additional female leaders into the research process may shift some of the closer associated results closer or further apart. Also, adding more leadership traits would provide additional insight that could change certain perspectives of these leaders.

Additionally, inference was applied based on the author's personal bias in interpreting writings and documents related to all twelve female leaders to create the qualitative to quantitative analysis. Therefore, if someone else repeated this particular study, their bias would play a role in determining the ratings and the results.

Lastly, some women had limited information on themselves such as biographies, interviews and articles. There was a minimum of three citations for each female. However, there could have been more for some women studied. Comparatively, others had smaller amounts of information to review. Therefore, a limiting factor is the inconsistency of public information available to extract qualitative information.

Future Research

For further research, an interesting research study area would be to pull in qualitative documentation on male leaders and infer their responses in a quantitative method, considering the same leadership attributes as the female leaders. In a male-focused research study that includes male experiences rising into leadership positions, there would be an opportunity to calculate responses and compare male to female responses using both studies. The findings would help to understand the traditional male experience compared to the female experience more robustly.

Another strong research area that could be beneficial is actually surveying top leaders from technology companies for their thoughts on the eleven attributes studied in this thesis. Taking their opinions and comparing them to the opinions of the leaders researched within this thesis would give some insight as to how people are perceived in their writing and interviews, versus how they would rate leadership qualities during a self-assessment.

REFERENCES

Adams, S. (2020). *About Scott Adams*. Retrieved from Dilbert: https://dilbert.com/about

Allam, C. (2018, November 1). *Duke Energy CEO Lynn Good's advice to female entrepreneurs: Take the leap*. Retrieved from WRAL website: https://www.wraltechwire.com/2018/11/01/duke-energy-ceo-lynn-goods-advice-to-female-entrepreneurs-take-the-leap/

Aspan, M. (2020, September 29). *'We're all learning real-time': GM CEO Mary Barra is being patient—but concrete—about inclusivity* . Retrieved from Fortune Inc. website: https://fortune.com/2020/09/29/gm-ceo-mary-barra-patience-leadership-inclusivity-fortune-most-powerful-women-summit/

Austen, T. (2014, August 21). *William Ralph Inge*. Retrieved from The Gifford Lectures: https://www.giffordlectures.org/lecturers/william-ralph-inge

Biography.com, E. (2018, February 14). *Melinda Gates Biography*. Retrieved from The Biography.com website: https://www.biography.com/business-figure/melinda-gates

Bomey, N. (2018, November 27). *Why GM CEO Mary Barra killed Chevrolet cars, approved likely plant closures*. Retrieved from USA Today website: https://www.usatoday.com/story/money/cars/2018/11/27/mary-barra-gm-general-motors/2116833002/

Bryant, A. (2013, November 24). *Lynn Good of Duke Energy, on Effective Leaders*. Retrieved from New York Times website: https://www.nytimes.com/2013/11/24/business/lynn-good-of-duke-energy-on-effective-leaders.html

Business Bigwigs Admins. (2013, August 15). *Safra Catz*. Retrieved from Business Bigwigs website: https://www.businessbigwigs.com/profiles/safra-catz/

Cameron, E., & Green, M. (2008). *Making Sense of Leadership*. Philadelphia: Kogan Page Limited.

Cohen, B. (2019, September 24). *6 life lessons from one of Fortune Magazine's most powerful women in business*. Retrieved from From The Grapevine website: https://www.fromthegrapevine.com/lifestyle/safra-catz-oracle-life-lessons-one-fortune-magazines-most-powerful-women-business

Cohrt, K. O. (2018, March 9). *Moving from Big Pharma to Biotech – Insights from Two Biotech CEOs*. Retrieved from Labiotech.eu website: https://www.labiotech.eu/interviews/pharma-to-biotech-ceo-insights/

Colantuono, S. (2020, April). *Leadership Lessons: Mary Barra, CEO General Motors*. Retrieved from Leading Women website: https://www.leadingwomen.biz/blog/bid/72881/leadership-lessons-mary-barra-ceo-general-motors

Collins, J. (2001). *Good to Great.* New York: HarperCollins Publishers Inc.

Cunningham, J. (2016). A Lean Story. *Tri-State Manufacturer's Alliance*, p. 12.

Cunningham, J. E., & Fiume, J. O. (2003). *Real Numbers: Management Accounting in a Lean Organization.* Durham: Managing Times Press.

Cunningham, J. E., & Jones, D. (2007). *Easier, Simpler, Faster.* United States: Taylor & Francis.

Davidson, A. (1999, July 1). *James Dyson*. Retrieved from Management Today: https://www.managementtoday.co.uk/uk-andrew-davidson-interview-james-dyson-art-school-graduate-made-fortune/article/406980

Day, J. C. (2019, May 29). *College Degree Widens Gender Pay Gap*. Retrieved from United States Census Bureau website: https://www.census.gov/library/stories/2019/05/college-degree-widens-gender-earnings-gap.html

Dorney, J. (2015, February 9). *The Northern Ireland Conflict 1968-1998 – An Overview*. Retrieved from The Irish Story website: https://www.theirishstory.com/2015/02/09/the-northern-ireland-conflict-1968-1998-an-overview/#.X6mWVfNKg2w

Duffy, C. (2020, April 21). *Sheryl Sandberg on coronavirus: 'Right now, everyone's living in Option B'*. Retrieved from CNN webpage: https://www.cnn.com/2020/04/20/tech/sheryl-sandberg-facebook-coronavirus-wellness/index.html

Ebrahimji, A. (2020, May 20). *Female Fortune 500 CEOs reach an all-time high, but it's still a small percentage*. Retrieved from CNN Business website: https://www.cnn.com/2020/05/20/us/fortune-500-women-ceos-trnd/index.html

Elson, D. (2017). Recognize, reduce, and redistribute unpaid care work: how to close the gender gap. *In New Labor Forum*, Vol. 26, No. 2, pp. 52-61.

Gates, B., & Gates, M. (2016, February 22). *Gates Annual Letter*. Retrieved from Gates Notes: https://www.gatesnotes.com/2016-Annual-Letter

Gates, III, W. H. (1999). *Business @ The Speed of Thought.* New York: Warner Books, Inc.

Gates, M. (2019). *The Moment of Lift: How Empowering Women Changes the World.* New York: Flatiron Books.

Goleman, D. (1995). *Emotional Intelligence: Why it can matter more than IQ.* New York: Bantam Books.

Good, L. (2016, January 15). Leadership Lessons with Lynn Good – CEO, Duke Energy: Work-Life Balance. (K. Golf, Interviewer) Retrieved from https://www.youtube.com/watch?v=w8yIJ4veXwg

Good, L. (2018, September 10). A conversation with Lynn Good, president and CEO of Duke Energy. (D. o. M. Eric Johnson, Interviewer) Retrieved from https://www.businessinsider.com/safra-catz-profile-oracle-sole-ceo-2019-9

Gregersen, E. (2020, August 24). *Sheryl Sandberg: American Business Executive.* Retrieved from Encyclopædia Britannica website: https://www.britannica.com/biography/Sheryl-Sandberg

Harrison, P. (1986). *America's New Women Entrepreneurs.* Washington: Acropolis Books Ltd.

Huffington, A. (2006). *On Becoming Fearless...in Love, Work, and Life.* New York: Little, Brown Spark.

Huffington, A. (2014). *Thrive.* New York: Harmony Books.

Inge, W. R. (1927). *The church in the world: collected essays.* England: Ayer Co Pub.

Johnson, W. B., & Ridley, C. R. (2004). *The Elements of Mentoring.* New York: Palgrave Macmillan.

Kimer, S. C. (2016, May 25). *Seven Insights on Leadership, Success and Diversity from Duke Energy CEO Lynn Good.* Retrieved from Total Engagement Consulting by Kimer: https://www.totalengagementconsulting.com/blog/2016/05/insights-leadership-success-diversity-duke-energy-ceo-lynn-good/

Knight, J. (1982, October 11). *Tylenol's Maker Shows How to Respond to Crisis.* Retrieved from The Washington Post: https://www.washingtonpost.com/archive/business/1982/10/11/tylenols-maker-shows-how-to-respond-to-crisis/bc8df898-3fcf-443f-bc2f-e6fbd639a5a3/

Kofman, F. (2006). *Conscious Business: How to build value through values.* Boulder: Sounds True Inc.

Kostner, J. (1994). *Virtual Leadership: Secrets from the Round Table for the Multi-Site Manager.* London: Warner Books.

Kostner, J. (2001). *Bionic eTeamwork.* Chicago: Dearborn Trade, a Kaplan Professional Company.

Kostner, J. (2020, June 26). LIFE Edge 120 - Jaclyn Kostner, Webinar Guru. (R. Zanotti, Interviewer) Retrieved from https://www.youtube.com/watch?v=MX9rlhVLRzQ

Kvochko, E. (2016, January 4). *Why There are Still Few Women Leaders in Tech*. Retrieved from Forbes website: https://www.forbes.com/sites/elenakvochko/2016/01/04/women-executives-in-tech/?sh=2b878a5655e7

Lambert, T. (2020, November 4). *'We have to make sure women aren't left behind by burnout': Arianna Huffington*. Retrieved from Women's Agenda website: https://womensagenda.com.au/business/we-have-to-make-sure-women-arent-left-behind-by-burnout-arianna-huffington/

LaReau, J. L. (2020, August 6). *'We need you' GM CEO Barra to young girls on a career in the car industry*. Retrieved from Detroit Free Press website: https://www.freep.com/story/money/cars/general-motors/2020/08/06/gm-ceo-mary-barra-pushes-girls-into-career-auto-industry/3301980001/

Le Folcalvez, K. (2014, April 3). *GM CEO Mary Barra: Responsibility And Learning From Mistakes*. Retrieved from Insigniam website: https://insigniam.com/blog/gm-ceo-mary-barra-responsibility-and-learning-from-mistakes/

Lean Enterprise Institute. (2018, March 5). Moving People Around as Key to Unlocking Financial Outcomes of Lean with Jean Cunningham. Retrieved from https://www.youtube.com/watch?v=CnfUwURIOrw

Leonhardt, M. (2016, September 30). *Melinda Gates Wants More Women in Tech Jobs*. Retrieved from Money: https://money.com/melinda-gates-women-technology-jobs/

Likert, R. (1932). A Technique for the Measurement of Attitudes. *Archives of Psychology, 140*, 1-55.

Luxner, L. (2020, June 18). *Lysogene CEO Karen Aiach, Inspired by Daughter, Determined to Treat Sanfilippo*. Retrieved from Sanfilippo News website: https://sanfilipponews.com/2020/06/18/lysogene-ceo-karen-aiach-inspired-by-daughter-determined-treat-sanfilippo/

Matoff-Stepp, S., Applebaum, B., Pooler, J., & Kavanagh, E. (2014). Women as health care decision-makers: implications for health care coverage in the United States. *Journal of health care for the poor and underserved, 25*(4), 1507–1513.

Maxwell, J. C. (2005). *The 360 degree Leader.* Nashville: Thomas Nelson, Inc.

McLeod, S. A. (2019, August 3). *Likert Scale Definition, Examples and Analysis*. Retrieved from Simply Psychology website: https://www.simplypsychology.org/likert-scale.html

Morris, T. (1994). *True Success.* New York: G. P. Putnam's Sons.

Pimentel, B. (2019, September 13). *Safra Catz has long been Oracle's secret weapon, and analysts say that it's her time to shine as sole CEO: 'This will test her, but she will prevail'.* Retrieved from Business Insider website: https://www.businessinsider.com/safra-catz-profile-oracle-sole-ceo-2019-9

Preez, D. d. (2020, February 12). *Oracle CEO Safra Catz - 'We had to change, we are here to serve you'.* Retrieved from Diginomica website: https://diginomica.com/oracle-ceo-safra-catz-we-had-change-we-are-here-serve-you

Quinn, R. (1996). *Deep change: Discovering the leader within.* San Francisco: Jossey-Bass.

Rendall, D. J. (2006). *The Four Factors of Effective Leadership.* North Charleston: BookSurge, LLC.

Rosen, B. (2014, January 1). *Leadership Journeys - Mary Barra: Harnessing Kinetic Energy at General Motors.* Retrieved from IEDP Developing Leaders website: https://www.iedp.com/articles/leadership-journeys-mary-barra/

Rossington, G., & Van Zant, R. (1973). Simple Man [Recorded by L. Skynyrd].

Sandberg, S. (2013). *Lean In: Women, Work, and the Will to Lead.* New York: Alfred A. Knopf.

Sandberg, S., & Grant, A. (2017). *Option B.* New York: Alfred A. Knopf.

Schner, D. W. (2020, October 4). *A Platform to Thrive.* Retrieved from Leaders Online website: http://www.leadersmag.com/issues/2020.4_Oct/Resilience/LEADERS-Arianna-Huffington-Thrive-Global.html

Sheerer, K. (2018, September 20). *5 Lessons in Leadership from a Fortune 500 CEO .* Retrieved from Vanderbilt University website: https://business.vanderbilt.edu/news/2018/09/20/5-lessons-leadership-lynn-good/

Snyder, S. (2016, January 1). *Five Leadership Lessons from General Motors CEO, Mary Barra.* Retrieved from Berrett-Koehler Publishers website: https://www.bkconnection.com/bkblog/steven-snyder/five-leadership-lessons-from-general-motors-ceo-mary-barra

Soloman, B. (2015, July 27). *When Her Daughter Was Diagnosed With A Rare Disease, This Accountant Started A Biotech Company.* Retrieved from Forbes website: https://www.forbes.com/sites/forbestreptalks/2015/07/27/when-her-daughter-was-diagnosed-with-a-rare-disease-this-accountant-started-a-biotech-company/?sh=43be02bd73ba

Stanley, A. (1999). *Visioneering.* Sisters: Multnomah.

Sullivan, D., & Nomura, C. (2016). *The Laws of Lifetime Growth.* San Francisco: Berrett-Koehler Publishers.

Taylor, P. (2018, August 29). *Women's health firm KaNDy raises $32M for menopause study.* Retrieved from Fierce Biotech website: https://www.fiercebiotech.com/biotech/women-s-health-firm-kandy-raises-32m-for-menopause-study#:~:text=%E2%80%9COur%20investors%20and%20the%20KaNDy,CEO%2C%20Mary%20Kerr%2C%20Ph.

Terry, M. (2018, June 26). *10 Women Biotech CEOs Lead the Charge.* Retrieved from BioSpace: https://www.biospace.com/article/10-women-biotech-ceos-lead-the-charge/#:~:text=The%20general%20consensus%20is%20that,led%20by%20female%20chief%20executives.

Throp, J. (2014, April 29). *Is Mary Barra Standing on a "Glass Cliff"?* Retrieved from New Yorker website: https://www.newyorker.com/business/currency/is-mary-barra-standing-on-a-glass-cliff?source=search_google_dsa_paid&gclid=Cj0KCQiAnb79BRDgARIsAOVbhRqzSJCEDX2o2KHCD6VsR97HAsN_4-KZqAWG6ePoZK324If61tgdeu8aAig8EALw_wcB

Tripp, P. M. (2016). *The Culture Cure.* Columbia: CreateSpace Independent Publishing Platform.

Trower, M., Anderson, R. A., Ballantyne, E., Joffe, H., Kerr, M., & Pawsey, S. (2020). Effects of NT-814, a dual neurokinin 1 and 3 receptor antagonist, on vasomotor symptoms in postmenopausal women: a placebo-controlled, randomized trial. *Menopause (New York, N.Y.), 27*(5), 498–505.

Troy, G. (2005). *Morning in America: How Ronald Reagan Invented the 1980s.* New Jersey: Princeton University Press.

Waring, M. (1990). *If Women Counted: A New Feminist Economics.* San Francisco: Harper Collins Publishers.

Wharton Alumni Magazine. (2007, July 1). *Oracle's President and CFO: Safra Catz W'83, L'86.* Retrieved from Wharton Magazine website: https://magazine.wharton.upenn.edu/issues/anniversary-issue/oracles-president-and-cfo-safra-catz-w83-l86/

Willink, J., & Babin, L. (2017). *Extreme Ownership.* New York: St. Martin's Press.

Wiseman, L. (2015, January 20). Global Leadership Summit 2013, Liz Wiseman. (T. W. Group, Interviewer) Retrieved from https://www.youtube.com/watch?v=ICW2K6ldTto&feature=youtu.be

Wiseman, L. (2019, December 9). How to Activate the Genius of Others with Liz Wiseman. (B. S. Saleebey, Interviewer) Retrieved from https://www.buzzsprout.com/457876/2251751-how-to-activate-the-genius-of-others-with-liz-wiseman

Wiseman, L., & McKeown, G. (2010). Bringing Out the Best in Your People. *Harvard Business Review*, 1-5.

Wiseman, L., & McKeown, G. (2010). *Multipliers.* New York: HarperCollins.

WomELLE. (2020, October 29). *3 Business Tips from Oracle Secret Weapon Safra Catz.* Retrieved from WomLead Magazine website: https://www.womleadmag.com/3-business-tips-from-oracle-secret-weapon-safra-catz/

WomELLE. (2020, November 8). *Duke Energy CEO Lynn Good's Top Advices for Female Leaders* . Retrieved from WomLead Magazine website: https://www.womleadmag.com/duke-energy-ceo-lynn-goods-top-advices-for-female-leaders/