Exploring the brain-based model of Collaboration and Influence in the Indian Information Technology (I.T) workplace

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DECLARATION

I, Pushpa Gopalakrishnan, hereby declare that this dissertation entitled 'Exploring the brain-based model of Collaboration and Influence in the Indian Information Technology (I.T) workplace' is the outcome of my own study undertaken under the guidance of Mr. P. Vijayakumar, Assistant Professor, Centre for Human Resources and Labour Relations, School of Management and Labour Studies, Tata Institute of Social Sciences, Mumbai. It has not previously formed the basis for the award of any degree, diploma, or certificate of this Institute or of any other institute or university. I have duly acknowledged all the sources used by me in the preparation of this dissertation.

07/03/2014   Pushpa Gopalakrishnan

CERTIFICATE

This is to certify that the dissertation entitled 'Exploring the brain-based model of Collaboration and Influence in the Indian Information Technology (I.T) workplace' is the record of the original work done by Pushpa Gopalakrishnan under my guidance and supervision. The results of the research presented in this dissertation/thesis have not previously formed the basis for the award of any degree, diploma, or certificate of this Institute or any other institute or university.

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PREFACE:

Neuroscience is the scientific study of the nervous system which has now found widespread acceptance in other disciplines such as computer science, philosophy and recently, even management sciences. The findings related to management sciences have particular importance especially for 'change agents' in organizations (as well as those who wish to modify their behavior in social situations.) So a large of amount of research is being done in this respect across the globe.

The SCARF (Status, Certainty, Autonomy, Relatedness, Fairness) model, a brain-based model of collaboration, propounded by David Rock in 2009, is one such research that has the ability to help us understand and ultimately modify our behaviors, improve the quality of our interactions with our friends, colleagues and family and thus lead richer and more fulfilling lives. The model helps us label the various emotions we experience and has predictive, analytic and explanatory abilities to various social situations. However, no attempt has been made to test the validity of the model.

Thus, in a study that is first of its kinds, this model has been examined in the context of the modern-day I.T workplace in my research entitled 'Exploring the brain-based model of Collaboration and Influence in the Indian Information Technology (I.T) workplace'. A qualitative and a quantitative study has been attempted to test the validity of this model and make valid inferences and suggestions on the basis of the results.

ACKNOWLEDGEMENT:

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Abstract

The carrot and stick approach in today's workplace is passé. We need a better way to understand motivation, rewards and threats better. A growing body of Neuroscientific research attempts to do this and few of the learnings have significant workplace implications for today's organizations, which have to continuously learn and grow. Each and every decision in the workplace has the ability to undermine or support this endeavor. The SCARF model, proposed by David Rock in 2009, attempts to identify the levers that support workplace learning through influence and collaboration. Status, Certainty, Autonomy, Relatedness and Fairness, he says, are the five domains along which managers have maximum impact on the working environment of their sub-ordinate. This study uses this model as a base and does a qualitative study of professionals in the Information Technology industry in India to test the validity of this model of collaboration and influence. In doing so, it identifies an important sixth domain, Defensiveness, plays an important role in enabling people to perform at their fullest in organizations. Originally identified by Chris Argyris as one of the domains that prevents organizational learning is his book Overcoming Organizational Defenses: Facilitating Organizational Learning (1990), Defensiveness in organizations breeds inauthenticity, cynicism and powerlessness. It also results in deep mistrust and the creation of an underground 'gray' management. Using these six domains (SCARF + Defensiveness), as the base, the study then attempts to quantitatively assess the impact of each of these domains with specific reference to the Information Technology professionals in India. However, it fails to prove the validity of the same due poor instrument validity.

Introduction

"I am a brain, Watson. The rest of me is a mere appendix."

— Arthur Conan Doyle, The Adventure of the Mazarin Stone

Increased complexity, rapid change and more interconnectedness characterizes the workplace today. Most organizations today are geographically distributed and coordination occurs through the use of technology. The Organization Men are no longer 'logical, reasoned, rational decision makers'. Work today does not have the deep discontinuities that made Taylorian specialization possible. Jobs (and the corresponding tasks, skills, knowledge and abilities) are no longer the building blocks for understanding the structure and nature of organizations. Organizations today can achieve/surpass its outputs only when the employee goes beyond his 'call of duty' and hence the need to secure employee commitment. A successful modern organization is one where workers take ownership and pride in the things they do. The organizational climate needs to be one where employees, regardless of their levels, work with and help each other to meet the organization's goals. The passive 'Fixed mindset' of the yore when people avoided challenges, gave up easily, ignore feedback and essentially see all effort as pointless needs to be rooted out. There is a need for a Growth Mindset that involves people to look at challenges as exciting, learns from criticism, persists through barriers and sees effort as a necessary component to mastery. But, to nurture this mindset, an employee needs to participate effectively in the workplace-i.e. take initiative, be creative and take responsibility for his actions- he must feel empowered. It is for this reason that the command and control model has been replaced by one that emphasizes on worker empowerment. This is absolutely essential for organizational success today because any employment contract can only specify what could be the broad areas of responsibility for an employee.

This necessitates that interpersonal relationships become especially important in today's workplace contexts. This also means that work can no longer be 'an integrated series of passionless, and thus emotionless, statements'. Emotions can no longer be regarded as unwanted influences that induce subjectivity in the workplace. The cold rationality of the workplace needs to go hand in hand

with the recognition of the fact that as individual we think as well as feel. The workplace, especially, has the ability to bring out a plethora of emotions within us-such as anger, jealousy, envy, guilt, shame, hope, anxiety, happiness, pride, love, gratitude and compassion. Positive workplace experiences that evoke in us positive emotions are deeply gratifying and negative ones can be hurtful, stressful and vexing. Especially, in today's workplaces, where it is easy to be invisible and feel ignored and where constant changes are but a fact of life, awareness of one's emotions, managing them, recognizing similar emotions in others and skillfully managing them are critical. The onus lies especially on today's leaders and managers, especially those like us in the field of Human Resources (HR) management. They need to work extra hard to influence people and improve that way people work together by generating positive emotions in the workplace. Emphasis is now being laid on creating working conditions that enable people to 'walk the extra mile'.

As HR professionals, we are concerned about the people we work with in our organizations. The ideas they create and the physical labor that they exert produce the tangible and intangible assets that oil the engines of our organizations. The policies we follow flow from certain beliefs about the nature of humankind. We know how an individual or a group of individuals would behave in a certain context and what can we do to maximize their performance. Behaviorism does not tell us what the true drivers of human social behavior are. At best, it can tell us how people react under a certain set of conditions. We don't have answers as to why do humans behave in a certain way. The trick is to understand their brain so as to understand their minds. This would enable us to assist people to improve their performance and help them manage themselves to ensure their well-being. It will help us determine the levers that enable employees to work effectively in the workplace by giving us a framework through which can help us determine the impact of existing interventions in organizations and attempt to improve their effectiveness. Neuroscience does precisely that.

Literature Review

Neuroscience and its Workplace implications:

Neuroscience is a study of the brain, right from its basic unit, neuron, to its neural networks. The term 'neuro' involves inquiring into people's emotions in specific contexts, using functional magnetic resonance imaging (fMRI) technology, electroencephalograph (EEG) machine or measuring hormonal secretions. For e.g. NeuroMarketing studies how people's brains react to marketing interventions. The first neuroscientific experiment was conducted in the 1970s when functional magnetic resonance imaging (fMRI) was used to study the brain response of subjects to various stimuli. Several branches of neuroscience exist today but social, cognitive and affective neurosciences particularly have wide implications, especially for the modern day workplace.

Understanding the Human Brain:

From a structural perspective, the human brain weighs about 3 pounds, is the size of a grapefruit and has two hemispheres. The brain is made up of fat, water and protein. The brain has two different kind of brain cells- neurons and glia. Glia acts as a structural support, acting as little nurses to Neurons, taking care of them. Each neuron is a self-contained functioning unit. The structure of the Neuron resembles a hand- the fingers represent the dendrites which receive incoming information, the palm represents the cell body with the DNA in it while the forearm represents the Axon, which sends outgoing information from the Neuron. The brain is packed with 100 billion Neurons.

The covering over the hemispheres is the Cortex, which is about six layers thick and contains nerve cells- Neurons. These neurons appear grey in color as a result of which they are called 'gray matter'. The Cortex is wrinkled as it allows for more surface area, if it were smoothed, its size would be equivalent to that of an extra-large Pizza. This allowance is required as our brains actually grow while we learn. At the back of the brain, underneath the Cortex, is the Cerebellum. It has more neurons than any other part of the brain and supports our motor (ability to balance and move) and mental ability (learning and memory). The Cerebellum receives great amount of information from the

different parts of the brain and its ability to sort and process this information is impressive. The Brain Stem connects the brain to the Spinal Cord. It performs vital life-sustaining functions such as assisting breathing and regulating heart beat and blood pressure. The brain stem comprises the medulla, pons, midbrain, hypothalamus and thalamus.

When looking at the brain, certain regions of the brain are clearly demarcated as compared to others. These regions have specialized functions and are referred to as lobes. The brain has four major lobes in both the hemispheres- frontal, parietal, temporal and occipital. The frontal lobes are right behind the forehead, representing a third of the Cortex and contains the Pre-frontal Cortex (PFC) that is in-charge of executive functions. This area of the brain does problem solving and is the mecca of creativity and critical thinking. It helps people delay gratification, set goals, recognizing and suppressing inappropriate responses, recall memories that are not task-based, recognize future consequences of current actions, synthesize information and make sense of emotions. The parietal lobes are located behind the frontal lobes, across the top of the head. They integrate sensory information from the environment. Portions of the lobes are involved in visual-spatial processing, allowing us to manipulate our bodies in an effective way. The Motor Strip is like a headband between the frontal and parietal lobes, which enables different kinds of movements. The Somatosensory cortex lies just behind the motor strip which processes sensations like heat and touch. It has touch receptors for every part of the human body. The temporal lobes are near the temples and are very important in comprehending and verbalizing language and syntax. The Occipital lobes are the visual processing centers. They have visual receptors that enable us to see different shapes and colors and they are present at the back of the head.
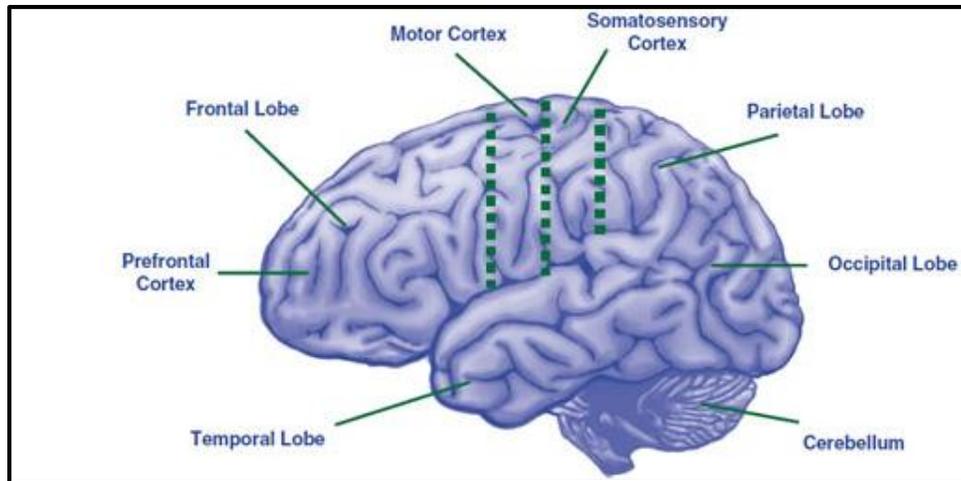
In terms of functions, the human brain has, to put it simplistically, three kinds of brains- the reptilian brain, the emotional brain and the thinking brain. This view has its origins in the model of the Triune brain proposed by American Neuroscientist Paul. D. Maclean. The reptilian brain is concerned with eating, sleeping and procreation. It consists of the Basal ganglia. The emotional brain consists of the limbic system. This system often makes value judgments, often unconsciously and has a strong effect on our behavior. This brain consists of the hippocampus and the amygdala. The thinking brain or the Neo-Cortex system consists of the Pre-Frontal Cortex that help us 'think'. The reptilian brain is something we possess in common with animal-kind. The emotional brain is a part of the ancient survival mechanism that our bodies developed during evolution. It helps us process emotions. The amygdala particularly is the brain's emotional soldier, continually assessing whether the world is safe or harmful. It responds to 'Reward/Threats". The Amygdala works together with the Hippocampus, which helps in memory formation. It plays an important role in remembering emotions associated with various stimuli we receive from our environment and instinctively responds. The amygdala adds an extra vividness to the memories formed in the Hippocampus which determines our response to stimuli and our response, which is 'approach/avoid'.

When the amygdala picks up a 'avoid' signal, the cerebral cortex is shut down cortisol and adrenaline are released as our 'fight/flight' responses are

activated. Though approach/avoid responses are instinctive, the avoid response is much stronger.

The thinking brain consists of the pre-frontal cortex (PFC) which does all of our 'rational' thinking. It has limited working memory and can work for a maximum of 3-4 hours a day. Contrary to what we humans like to believe, thinking is not instinctive and hence requires additional fuel like oxygen, glucose and dopamine. When under stress (under the 'avoid' condition), the supply of glucose and oxygen to the PFC reduces, leading to constrained thinking abilities. When the amygdala recognizes a stimulus as 'approach', the neurochemical transmitter 'dopamine' is released. This aids mood stabilization, motivation and joy. The pleasure pathways are activated and enhances the ability of a person to access the thinking part of the brain- i.e. the pre-frontal cortex (PFC).

There are other factors that modulate the brain's performance. Sleep deprivation causes a loss in ability to read social cues accurately. Diet too plays a role. The brain demands 20% of the body's resources and hence we are unproductive when we are hungry. Similarly, exercise improves the cognitive performance of the brain. Multi-tasking can also be an impediment to performance as the PFC has only limited working capacity.

All this has implications for us because it means that we need to identify drivers that minimize threat and maximize rewards in our workplaces. The emotional brain has to be in sync with the thinking brain to maximize performance in the workplace. Given the context of today's workplace, it is critical for today's leaders to create the right set of emotions in the workplace that enhances the trust, morale, satisfaction and motivation of employees to improve organizational effectiveness. It thus becomes critical to understand the biological underpinnings of the leader-follower relationship in the workplace. This is where NeuroLeadership, term coined by David Rock in 2009, steps in.

NeuroLeadership

Neuroleadership is an "emerging field of study connecting neuroscientific knowledge with the fields of leadership development, management training, change management, consulting and coaching". An effective leader in today's workplace needs possess emotional intelligence- i.e. the perception, identification, understanding, and successful management of their emotions and those of others in the workplace is a must. Additionally, he must be capable of facilitating change in his environment in a manner that does not generate negative emotions in the workplace. Further, he must also be on who is capable of enabling collaboration within the workplace. Thus Collaboration is critical to today's workplaces as it allows for decentralization of the organizational knowledge base to promote organizational learning and for the purpose of preserving organizational memory. It also builds a 'sense of collegiality' within the organization through the formation of 'weak ties' within the organization, in addition to the strong personal ties that exist within the workplace. The formation of many such strong and weak ties is critical in organization as it also addresses the issue of primacy of the social needs of the brain- i.e. the human brain craves company as much as it craves for food, water or air. It was in light of this that David Rock in 2009 came up with a collaboration and influence model – SCARF to explain what levers enable influence and facilitates, promotes and enhances collaboration in the modern-day workplace.

The SCARF model:

The SCARF model, suggest that changes in Status, Certainty, Autonomy, Relatedness and Fairness (SCARF) are the drivers which can trigger an approach/avoid response in the workplace and thereby enable/reduce workplace collaboration. Understanding these drivers can help individuals within organization to, in David Rock's own words, "function effectively, increasing the amount of time people spend in the approach state and reducing conflicts that occur so easily amongst people". The details of each of the levers is given below:

Status:

Status is all about 'pecking order, relative importance, and seniority'. Human beings always look at themselves in relation with others when conversing and this affects us in many ways and they use the same brain networks for thinking about themselves and others. One's status goes up when one feels better than the other person resulting in an increase in dopamine levels. Even the perception of status threat or increase can generation strong responses in human beings. People also feel a status increase when they learn and improve. Public acknowledgment also triggers a dopamine release which results in a strong perception of status increase and enable better performance. A status can be easily threatened- merely giving advice, feedback, routine every day arguments or even slight criticism of one's tasks. Status threats force people into taking positions that make no sense simply because they wish to preserve their status.

Certainty:

The brain likes to predict the future by recognizing patterns. It craves certainty and any deviation from the normal results in the firing of error in the orbital frontal cortex of the brain. It forces the brain to use more resources, forcing it to use the Pre-frontal Cortex (PFC) to generate responses to the uncertainty. Large uncertainties, such as not knowing whether your job is secure, can be debilitating. Creating a sense of certainty, even in times of uncertainty in the workplace is rewarding as it triggers a dopamine release. Say the organization is going through a merger and acquisition, which is a period of greater uncertainty within the organization. It helps to have regular meetings stating clearly what the position is, what the next steps are and so on.

The mind craves for information, just for the heck of it because it loves to predict. It is not just thinking about this moment or about the here-and-now but also continually seeking information to make predictions about the future

Autonomy:

Autonomy is the sense of having choice, the feeling of control over one's environment. An increase in perception of Autonomy feels rewarding. When it is reduced, by say, being micromanaged, it generates a strong threat response. Organizational policies need to be structured in a way that allows for perceptions of choice in the workplace. Autonomy is a great driver for people of all ages. In fact, it is not just restricted to people, even rats crave autonomy. In an experiment by Steven Dworkin, at the University of North Carolina found that rats dies faster when they were fed drugs rather than when they took it of their own volition, by pressing a lever. This perception of control is critical in also managing stress levels of employees. An experiment conducted on healthy, non-smoking British public servants in lower-level positions had lesser health problems than senior public servants.

Relatedness:

One of the biggest discoveries in neuroscience has been the fact that social needs are as important as other basic needs- being left out from a group (lack of relatedness) can cause as much pain as a physical fall. Being in or out of a social group generates strong responses. Status threats occur when people are left out from a group, evoking a feeling of being rejected. In fact so strong is the response that it causes as much pain as a physical fall- the same regions of the brain light up in either of the cases. People tend to approach people they know and avoid approaching those that they don't. But in what can be termed as a Catch-22 situation, the brain goes into the 'foe' mode when people meet new people, thereby reducing the possibilities of forming ties within the organization. This has its roots in the evolution, when people were a part of

tribes and it was critical to know who was in or out of the group. So it is critical for leaders to create workplace conditions that reduces this threat by creating safe meeting environments. A simple handshake creates an Oxytocin rush that helps people feel safer. The safer they feel, the greater people trust one another and greater the possibilities of sharing information and collaborating.

Fairness:

Perceptions of unfairness generate strong threat response and people may even feel a sense of reward when unfairness is punished. A recent TED talk by Frans de Waal in 2012 that went viral on the social media showed how even Capuchin monkeys react strongly to being treat unfairly for their efforts. People don't empathize with those they deem as unfair. This domain has the ability to generate strong responses in the workplaces where there is little openness and transparency. The most visible expression of unfairness in the workplace is one that involves compensation. Hardly would one across an employee who is thoroughly satisfied with the appraisal system within the organization.

Research Methodology

Objective

To qualitatively study the validity of the SCARF model of collaboration and influence and identify any additional domains if possible.

To test the validity of the SCARFD model, which include the additional domain-Defensiveness- identified during the qualitative study of the validity of the SCARF model.

Methodology

Given its intuitive simplicity, the SCARF model is applicable in all contexts- for work places, personal learning, training, leadership development, education and designing organizational systems. But as budding HR professionals, it especially makes sense for us to study it in the work place context.

The information technology (IT) sector within India was especially chosen for this purpose given that it employs a large chunk of the population, employing about 2.8 million directly and 8.9 million indirectly. It also contributes to a large chunk of the Gross Domestic Product of India- 7.5% for the year 2012. The nature of work demands that people work in teams both within India and across borders. Though India was once the most sought after destination for IT for reasons of cost-efficiency, it is also a sector that faces increasing competition from economies like China, Philippines and Sri Lanka, which even offer cheaper labor costs. The thrust is now not only on minimizing labor costs but also adding value to the services offered by the I.T majors. This means that the nature of work would change, which until now was often mundane or repetitive and focused on individual contributions. Adding value would involve greater initiative-taking from employees. But this may be hampered by the increasing attrition rates within the sector. Top companies like Infosys, Wipro and HCL Technologies are now seeing high attrition rates of 17.3%, 15.4% and 16.1% respectively (Percentages for the quarter of July-September 2013). Experts predict that this is set to rise by 200-300 bps in the current year (2014). While a large chunk of this attrition is primarily driven by need for

better compensation, it does make sense also to evaluate the working conditions in light of the SCARF model proposed by David Rock. It is for this purpose that a qualitative and quantitative study was proposed to verify the validity of the SCARF model of collaboration and influencing others and propose systemic solutions to the problems faced by the employees in this sector. The study was restricted to the services component of the IT sector, given the richer and more diverse nature of the work and better pay as compared to the Business Process Outsourcing (BPO) component. This would help us identify impact of managerial practices, given that few of the hygiene factors have been established.

An in-depth interview, each lasting half an hour of six I.T professionals was carried out over phone. Five of them were males and one of them was a female (unmarried). All, except one, were based out of Mumbai. All of them have significant experience in the I.T sector, with an average of 52 months of experience. While most of them had been working in the same city, a few of them had moved across cities for project-related reasons. Two of them were working with in the I.T division of an investment bank, one of them being a major investment bank that had gone bust and was later acquired by a Japanese financial giant during the recent 2008 Financial Crisis. Questions were posed on each of the five domains of SCARF. General questions on their ideal and current managers, teammates and organizations were also posed to identify if any new domains could be identified. The complete list of Questions that were posed to them is given in the Appendix.

Following this and after confirmation of validity from the qualitative study, an online questionnaire was sent to professionals in the I.T industry in all parts of the country and responses were sought.

Development of the Instrument:

The instrument was developed on the basis of literature support and key themes identified during the in-depth interviews done during the qualitative study.

Status:

The definition of Status by David Rock closely resembles the definition of Organization-based self-esteem (OBSE) defined by Pierce, Gardner, Cummings, and Dunham (1989) as "an employee's evaluation of his or her personal adequacy and worthiness as an organizational member". Michael L. Schwalb (1985) suggests that people come to view and evaluate themselves through the following: reflected appraisals (reactions of others to us from where we learn relevant information about our-self), social comparisons (comparing ourselves to others and then generating the relevant information) and through self-perceptions (when observations of and attributions of our own behavior serve as a source of information by which evaluate ourselves). Greater the feeling of self-efficacy i.e. an individual's belief in his or her capability to perform activities with skill which results in better performance, greater the self-esteem of the employee. This was captured by the item:
 It affects me when I do not feel competent at my work.

An individual's self-esteem also increases with an increase in responsibility that has been offered as a reward for good performance. Positive recognition at work by colleagues and managers also is basic in maintaining and enhancing self-esteem. This has been captured by the item:
I feel demotivated when work done by me is not appreciated by my manager.

The ability of employees to give inputs in their work enhances their self-esteem if their ideas are given due consideration and acted upon if feasible. This has been captured by the item:
It affects me when my views are ignored or not taken seriously by my manager.

Sometimes the formal organization with its rigidity, centralization, formalization standardization of procedures affects the self-esteem of the employees. This kind of Mechanistic structures leaves little room for self-direction and self-control. This has been captured by the item:

I am demotivated when I realize I am one among the crowd and easily replaceable.

An individual's feeling of self-worth and self- esteem will also be influenced by the quality of supervision. Abusive supervision, as perceived by the employee includes hostile verbal or non-verbal behaviors. It takes many forms-demeaning the employee, taking credit for his work, belittling or under-mining his or her efforts. Employees usually tolerate these hostile behaviors because of the role the boss plays in career advancement, compensation, and feedback during appraisal season. The employee's self-esteem is also affected during the Appraisal season when the feedback on the employee's performance is not delivered with due objectivity and sensitivity. This has been captured by the items:

I try to improve my performance when my manager gives me negative feedback.
The appraisal season is damaging to my self-esteem.

Certainty:

Certainty in this case (SCARF model) is the ability to predict the future based on previous experiences and patterns through continual seeking of information. The level of input available to employees in their day to day job affects their stress levels on the job and impacts their productivity. Standardization of routines and expectations is preferred. People like their locus of control to be internal but when most of it is left in the hand of the organization, employees' sense of certainty is affected. The themes concerning Certainty were picked up only from the Qualitative interviews and encompassed all aspects that emerged from them. The aspects of uncertainty that relates to large-scale organizational changes such as restructuring, reorganization, merger, consolidation, layoff, new technology, culture change etc. were excluded as they did not figure prominently in the qualitative interviews conducted. The items included in the

survey include:

It affects me when I see no clear career path for me in my organization.

I can't perform at my best if there are no clear performance expectations from my manager.

The insecure nature of my job worries me.

I can't perform at my best when deadlines are not specified.

Changes in location/projects affect my performance at work.

It affects me when I am faced with uncertain or undefined tasks at work.

Autonomy:

Michael L. Schwalb (1985) defines Autonomy as 'freedom of movement, freedom to establish and execute plans for task accomplishment, and freedom from immediate supervision'. Most individuals in the workplace tend to look at Autonomy as a reward for reliable and competent performance at work. It is also highly connected to our sense of self-efficacy. The autonomy of individuals within organizations is highly dependent on his manager's leadership style and the opportunities they provide to their employees in the allocation of resources, shaping and implementation of the projects, policies and systems at work. Individuals must have the freedom to provide inputs on works that concern them. Inputs must be sought in terms of choice of projects, their schedules, work options etc. Doing so can lead to greater productivity in the workplace as it gives employees a perception of choice and the accountability that flows from this freedom of choice given to the employee. It also leads to lower turnover and greater job satisfaction. These aspects of Autonomy has been captured in the following items:

It affects my performance at work if I do not have choice in terms of projects.
It affects my performance at work if there is no flexibility in terms of timings, work options etc.
I can't perform at my best at work if workloads or deadlines are imposed upon me.

I can't perform at my best at work when I have to follow other people's commands.

Micro-management at work is something that gets the goat of people across the globe People also detest being monitored constantly at work. This increases the aspect of external accountability and hence affects the performance. This aspect has been captured under the items:

It affects my performance when I am unable to choose the methods to carry out my work.
It affects my performance when I am monitored at work.

Relatedness:

The idea that people have feelings for those they work with is an old one, dating back to Elton Mayo (1933), the father of the Human Relations Movement. These feelings also have the ability to affect the on-the-job performance of the employee. This was clearly proved by the results of the study published by Roethlisberger and Dickson (1939) conducted at Western Electric's Hawthorne plant. Employees were given adequate incentives as well as opportunities to socialize. In the presence of both- incentives as well as opportunities to socialize, the output was greater than in presence of any one of the two. Friendships at work are also good for the organization as general ability to get along with colleagues also indicates an ability to get along well with one's clients.

But social relationships and exchanges are quite complex as they can be a source of intense happiness as well as disappointment. The nature of the relationship need not be altruistic, indeed the presence of a compensation system that promotes compensation tied to an individual's performance reduces the possibility of this. But it is generally found that attraction is linked with Altruism. This usually occurs through behaviors that are intended to assist others in sharing tasks, giving advice, teaching skills, providing material aid and helping others cope with the stresses of their lives.

Being nice with one's colleagues generates happiness which results in promotion of altruistic behaviors. This could also result in collusion which can increase or decrease the output. Colleagues could reduce their own effort to

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keep their income constant or increase efforts to increase incomes of fellow employee. Of course, collusion is good in case of compensation is tied to group performance. These aspects have been captured in the items:

In my relationships with my colleagues, I must feel bonded to them.

It affects my performance at work if I don't feel supported by my team mates.

It affects my performance when there is no complete understanding within my team.

Socialization outside of works takes on special importance in today's workplace context, where strict division between work and non-work lives is difficult in the face of blurring boundaries today, courtesy the social media. This is especially true of younger employees who tend to have a wider social circle. This must be encouraged as many goals in organizations require team work and hence social relationships can also be a source of great stress. Often people leave meetings with unresolved feelings that lead to 'emotionally draining anger and passive rebellion'. These socialization measures outside of workplace can serve as a vent to the bottled feelings of resentment in employees, while serving as an opportunity for colleagues to know each other better. This has been captured by the item:

Socialization within the team on a regular basis outside of work is a must.

Bernard. M. Bass (1985)'s theory of transformational leadership also talks about the needs for leaders to showcase elements of individualized consideration wherein they act as coaches or mentors to their employees, treating them respectfully, motivating and challenging them constantly and supporting them in every possible way. This means that leaders and managers must go beyond the 'professional', understand their employees on a personal one-to-one basis and support them. This has been captured by the items: *My Manager must go beyond the professional and take personal interest in my well-being.*

In my relationship with my manager, I must feel supported at all times.

Fairness:

Fairness is the perception of and need for equitable exchange and has to do with feeling that we are treated justly and equitably. Organizational Justice matters in organizations not only because it is a fair, ethical approach but also because people react strongly to injustice. Fryxell and Gordon (1989) find strong association between employees' satisfaction with management and perceptions of workplace justice. When the reward an individual receives (actual share) is equal to the amount the individual believes to be fair, justice will be perceived. But if they differ, injustice would be perceived. Perceived fairness is of two kinds: "procedural justice," when employees believe that the techniques used to for dispute resolution are fair; and "distributive justice," when the employees believe a fair decision has been made. Some theorists contend that procedural justice precedes distributive justice. Perception of justice is also colored by the amount of control employees have over the allocation of rewards in the workplace. When employees have level of control over the system that determines their pay, they are more likely to perceive fairness in the system. Therefore the existence of formal grievance redressal system within the organization is a must as it shapes employees' beliefs in the fairness of the workplace and also influence satisfaction with the job. The procedures followed to reduce grievance provide a symbolic or intangible outcome in the form of respect for the employees making the fairness of the tangible outcomes matters less to them. Lack of such mechanisms could signal the lack of respect for the employee. This has been captured under the items:
The performance management system (appraisal, rating system) in my company does not treat people fairly.
It demotivates me when there are no grievance redressal forums within my organization where I can voice my concerns.

The perceptions of fairness also include the working conditions. If assumptions about an employee are made on the basis of his gender, age, place of origin etc. Discrimination against the individual may also be made on the basis of his poor past performance or a personality trait, which could have been due to circumstances beyond his control. This often results in stereotyping, which can extend to all stages of an employee life cycle, right from hiring to the

performance appraisal. Discrimination against the individual can be both in the procedural and distributive sphere as in spite of their contributions, individuals may receive lower rewards and may not be granted access to or his/her views may not be taken seriously by the system for redressal within the organization. This has been captured under the items:

It affects me when assumptions about me are made on the basis of my gender, language, place of origin etc.

It does not affect me much when I am when faced with unfair, persistent criticism at work.

It affects me when my manager is partial towards some members of the team.

The equity theory in compensation also predicts that people tend to compare their compensation with those within their teams, then those outside of theirs but within the organization and finally, those outside the company. This aspect has been captured under:

It affects me when people in a different skill earn more than me, despite similar nature of work.

Results and Analysis

Results of the Qualitative Study:

Status:

A strong need for higher Status at their work place encompassing several themes came across from all of the respondents. While most respondents derived a direct sense of status from being 'promoted', they were cognizant of the fact that rewards are few in number and that until them, less subtle forms of Status upgrade in the form recognition or positive feedback was also important. Recognition of their work by the manager or the client was deemed important too but a few of them also felt that they had lost their meaning as it had become mere formality or a means of compensation for those who had lost out in the promotion race. Overall, the verdict seemed to say 'recognition is good, not good enough'. All of them seemed to agree that it was extremely important for them to be good at what they do, underlining the linkages between self-efficacy and one's self-esteem. Also related to self-esteem was the way their managers treated them. One of them pointed out instances of open verbal intimidation by his manager, who threatened to 'screw up' his ratings. The employee reported that he 'had been treated very badly' and felt helpless and depressed under this manager. A few of them also commented on the hard bound, inhuman nature of the systems in the workplace, one of them even commented on how it made her feel small and that 'she was just one among the crowd' and that she wished 'it was more human'. This mechanistic nature of I.T organization is due to fact that they have an extremely large number of employees. Several of them interviewed also complained about the criticism on their performance meted out during the appraisal season and also otherwise.

Certainty:

Most of those interviewed had strong views about the uncertain nature of their work. Typically, work in the I.T industries (Services division) depends on service requires/change request raised by the client in consultation with the client-side employees of the I.T Company or the near-shore team or those in

the Consulting division. So typical employee has very little control over the kind of projects allocated to him and has no say on whether a certain change can done and if so, within what time, The deadlines are percolated from the top to the bottom, which led to great uncertainty for the employees. So there could be times when the employee would have nothing to do and times when he would be overloaded with work. This kind of poor planning arising due to poor top-down communication often frustrated the employees as it killed their work-life balance Also since at times, projects could go out of hand (of the company itself) or were unclear on the status of projects during the start of the year, goals and performance expectations were quite uncertain. Poor communication from the manager could also be a problem in this scenario but the end result was that employees often found the lack of clear expectations to be problematic. The other concern that emerged was the period during Bench (a common phenomenon in I.T when employees are awaiting projects) when employees had absolutely no clue where they would be (location-wise) or which project they would be in next. Apart from these common concerns, a few of the respondents who were a part of the Investment banking industry during the Financial crisis in 2008 almost mentioned the security of their jobs as a cause for uncertainty in their lives. But the respondents were happy with the way the companies handled it. Regular meetings, complete transparency

The biggest concern however that came through from all correspondents (all of whom were in the work experience group of 4-6 years) was that they seemed to have hit a ceiling in the organization and had no clue how their future growth trajectory would be. The lack of concern for this aspect from the managers and the companies was something they found frustrating.

Autonomy:

Often in a typical I.T environment, employees particularly those who are starting out in their careers, have limited choice in terms of location and projects. But this is more or less taken as a fact of life and employees have learnt to live with it. In terms of deadlines for project at work, employees do not have much of a voice. Even during the goal setting and appraisal season, goals are often cascaded top-down and employees felt frustrated when their voices were not heard. A few respondents expressed concern about the inability

to have a voice when project plans are executed. As one respondent noted, "We are the ones who do the work. We have a good idea about whether or not a particular job can be done and by when can it be done." A few also felt that their work-life balance often goes for a toss with the kind of deadlines at work and wished for greater autonomy in terms of work options like work-from-home (WFH) and flexible work hours.

Relatedness:

Interviews with the respondents' revealed people did not place much importance on sociability of the workplace. A few of them even wished their colleagues should be 'strictly professional' and not take much interest in their personal lives. Perhaps this is to be understood in the context of the Indian workplace, where Indians naturally have a proclivity to 'poke their noses' into other people's affairs. A few also lamented on the unprofessional behavior of few of their colleagues, such as not delivering when promised which reduced their trust in them. Of course, none of them wanted to be with colleagues who were not friendly but their focus seemed to be more on achieving their set goals, which ultimately would decide their ratings and compensation. Thus ensuring their colleagues had skills complementary to their own or as one of the respondents put it, his ideal team mates would have 'diversity of thought' seems more important to them. They also emphasized on complete understanding within the team. A respondent gave an example of a client who used to contact them at odd hours. It was important for the respondent and most of her team mates that they enjoy a good work-life balance. So it was an unwritten rule that none of them would reply to his mails or pick up his calls whenever the client called at odd hours.

All of them also emphasized on how managers must go beyond the professional, introduce a 'personal touch' in relationships with them, must take interest in the employees' careers and support/understand in case of problems at work or home. But all of them were unanimous in their support for a friendly workplace and definitely did not want 'bad teammates' (meaning those who were overly-competitive and hence could not be trusted).

Fairness:

The domain of fairness evoked strong responses from almost all those interviewed. Unanimously, they regarding the performance appraisal system in their organizations as unfair, even though they may not have been direct victims of unfairness. Particularly the force fitting of employees in the 'Bell-curve' increased the perceptions of unfairness. Several respondents questioned the logic of slotting employees into fixed percentages of the each of the four/five categories, which often forced (often unfairly) some people to be put in the 'performance improvement' category. One respondent also complained bitterly of how the system 'compared apples with oranges'. In the I.T industry, the appraisal first occurs within one's team where each of the employees is slotted into any of the five/four categories of employees who are then compared to those similarly slotted in other teams, who may or may not be doing the same work as the one with which they are being compared. Several respondents also complained about the differential pay for people involved in same role earning differently because of the presence of the 'Variable pay dependent on Skill' component in their packages. This was felt because the skill one is to be trained in is determined by the company and since the employee had no choice, he/she deems it unfair. In terms of working conditions, I.T employees need to log in 10.5 hours every day and are monitored for the same, a few of the respondents felt this was unfair and that only their end output should matter.

Other themes:

A key theme that emerged was the lack of trust in managers and the senior management emerged as key point in all discussions. They also complained of their managers trying to keep them in the dark regarding important decisions and hiding information from them. The inability of the management to communicate their concerns to the senior management and/or the client team frustrated them. In the words of a colorful respondent, the "management s^&*$!" Most of them also complained about the political games played within the organization to push one's ideas. One of them lamented about the

workplace democracy meant nothing as the managers did not really care about the views of the employees. So distrustful were they of the management that they weren't really keen on approaching the management with their ideas as they weren't really sure of whether the 'manager was our man or theirs' (implying the client or the management). People also disliked managers who tended to shift blame on the employees when things went wrong. As one distressed employee put it, "I just don't know why managers don't lead from the front! They always use us as scapegoats when things go wrong."

Thus from the qualitative study the following themes were identified:

1. **Respondents seem to have enough support for all the existing domains of SCARF, thereby proving the validity of the model.**

2. **The strongest support was for the role Fairness plays in enhancing/reducing workplace collaboration and influence in the typical I.T workplace.**

3. **A new domain of 'Defensiveness' has been identified as also one of the key drivers of workplace collaboration and influence.**

4. **A new model of collaboration and influence at workplace - SCARFD model is being proposed to incorporate the new domain thus identified**

5. **A definition of defensiveness for the purpose of development of the instrument is given below:** In terms of behavioral psychology, trust results when there is "reliable pairing of antecedent events with behavioral consequences" that is, when people's actions and their words match. In organizations, trust is violated when management says nothing but enacts change; such change ends up being conveyed to employees through outside sources. Trust is also violated when managers say one thing, and do another. This has been captured by the item:
   My Manager often says one thing and does another.

   This lack of trust between managers and employees creates a pressurized

environment that is also inauthentic as feelings are not revealed truly on either side. This has been captured under the item:

I behave very differently, often relaxed, when my Manager is not around.

I hesitate to speak with my manager and make my voice heard.

A sense of trust is also fostered when accurate and timely information is provided. However sometimes management may not provide information as it is perceived by management to be "difficult, undesirable, or simply not possible. Fearing that they may mislead or that the information they have is erroneous, managers often fall silent". This aspect has been captured under the item:

My Manager is often secretive, keeping me in the dark about important decisions.

My manager often blames others/the system when things go wrong.

The lack of trust between employees and managers often results in a sense of powerlessness arising because people simply want to preserve the status quo than confront the system and make the required changes because they don't want to hurt any egos.

I don't think my manager can push through my team's agenda in front of management.

Thus eventually, an online questionnaire with 37 items was sent on. Each domain had six questions along with a global one which measured the collaborative atmosphere at the workplace. The responses were sought on the 5–point Likert scale, with 5 representing strongly 'Strongly Agree' and 1 representing 'Strongly Disagree'.

Results of the Quantitative Study:

Overall 36 valid responses were received, all of whom were associated with the IT (Services) industry in managerial or non-managerial position.

The overall reliability of the test (involving 37 items) was quite good, 0.902. A description of item statistics including mean and standard deviation has also been provided in the Appendix. But the inter item reliability of each of the six domains, measured by Cronbach Alpha, that measures homogeneity, was quite poor. For each of the six domains- Status, Certainty, Autonomy, Relatedness, Fairness, Defensiveness, the Cronbach Alpha values were 0.517, 0.560, 0.660, 0.602, 0.628, 0.787 respectively. Only Autonomy, Relatedness, Fairness, Defensiveness pass the reliability test which deems any value greater than 0.6 as acceptable.

However, the unreliability can also be explained by the fact that these items don't really measure the domain as such but different aspects of the domain in a way that defines the domains. For e.g., the items do not emerge from the definition of Status as given by David Rock (or that emerged through qualitative research) but actually define different aspects of status, in a way explaining Status. Status derived from self-efficacy, promotion, recognition at work etc. are all different and need not evoke similar responses in people. But they all contribute to Status at workplace. So ideally, internal consistency, which measures homogeneity is not really applicable in the case here.

Though it is logical to think that "multiple indicators of the same construct should be inter-correlated", "high inter-correlations among the measures might mean that the items are overly redundant and the construct measured too

specific". Further it could also mean content validity (different aspects of the latent variable) has been sacrificed.

Factor analysis through the principal component method (and rotation through Varimax) was also carried out for each of the six domains and all the domains except Certainty passed the Validity criterion:

a. Kaiser Meyer Olkin measure must be greater than 0.5

Each of the six domains passed the Validity criterion:

b. The Bartlett test must be significant (<0.05)

However, as for the other criterion, they could not be satisfied. I.e.

c. All the factors must be reduced to one dimension only

d. Each component must have a value of more than 0.5 in the component matrix

In light of all of this fact that the instrument cannot be proved reliable by means of conventional statistical methods, no further analysis was carried out as the instrument was deemed 'faulty'.

Status:

Reliability Statistics

Cronbach's Alpha	N of Items
.517	6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.528
Bartlett's Test of Sphericity	Approx. Chi-Square	41.823
	df	15
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.201	36.684	36.684	2.201	36.684	36.684	2.159	35.986	35.986
2	1.402	23.375	60.059	1.402	23.375	60.059	1.444	24.073	60.059
3	.921	15.351	75.411						
4	.748	12.471	87.882						
5	.428	7.126	95.008						
6	.300	4.992	100.000						

Extraction Method: Principal Component Analysis.

Certainty:

Reliability Statistics

Cronbach's Alpha	N of Items
.560	6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.479
Bartlett's Test of Sphericity	Approx. Chi-Square	32.841
	df	15
	Sig.	.005

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.058	34.308	34.308	2.058	34.308	34.308	1.950	32.502	32.502
2	1.135	18.916	53.224	1.135	18.916	53.224	1.243	20.722	53.224
3	.967	16.125	69.349						
4	.816	13.601	82.950						
5	.769	12.818	95.768						
6	.254	4.232	100.000						

Extraction Method: Principal Component Analysis.

Autonomy:

Reliability Statistics

Cronbach's Alpha	N of Items
.660	6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.664
Bartlett's Test of Sphericity	Approx. Chi-Square	31.653
	df	15
	Sig.	.007

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.324	38.738	38.738	2.324	38.738	38.738	2.049	34.143	34.143
2	1.014	16.898	55.636	1.014	16.898	55.636	1.290	21.493	55.636
3	.922	15.367	71.003						
4	.808	13.465	84.467						
5	.531	8.844	93.311						
6	.401	6.689	100.000						

Extraction Method: Principal Component Analysis.

Relatedness:

Reliability Statistics

Cronbach's Alpha	N of Items
.602	6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.655
Bartlett's Test of Sphericity	Approx. Chi-Square	26.571
	df	15
	Sig.	.032

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.147	35.783	35.783	2.147	35.783	35.783	1.923	32.049	32.049
2	1.232	20.528	56.311	1.232	20.528	56.311	1.456	24.262	56.311
3	.878	14.629	70.940						
4	.703	11.717	82.656						
5	.570	9.493	92.149						
6	.471	7.851	100.000						

Extraction Method: Principal Component Analysis.

Fairness:

Reliability Statistics

Cronbach's Alpha	N of Items
.628	6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.657
Bartlett's Test of Sphericity	Approx. Chi-Square	42.244
	df	15
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.352	39.194	39.194	2.352	39.194	39.194	2.252	37.534	37.534
2	1.360	22.670	61.864	1.360	22.670	61.864	1.460	24.330	61.864
3	.871	14.514	76.378						
4	.621	10.343	86.722						
5	.454	7.570	94.292						
6	.343	5.708	100.000						

Extraction Method: Principal Component Analysis.

Defensiveness:

Reliability Statistics

Cronbach's Alpha	N of Items
.787	6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.578
Bartlett's Test of Sphericity	Approx. Chi-Square	78.605
	df	15
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.995	49.919	49.919	2.995	49.919	49.919	2.133	35.545	35.545
2	1.102	18.369	68.288	1.102	18.369	68.288	1.965	32.743	68.288
3	.751	12.524	80.812						
4	.601	10.012	90.824						
5	.408	6.792	97.617						
6	.143	2.383	100.000						

Extraction Method: Principal Component Analysis.

Overall Reliability of the Questionnaire:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.902	.904	36

Item Statistics (Descriptive Statistics)

item	Mean	Std. Deviation
I feel demotivated when work done by me is not appreciated by my manager.	4.14	0.723
It affects me when I do not feel competent at my work.	3.97	0.845
The appraisal season is damaging to my self-esteem.	3.06	0.984
It affects my self-esteem when I realize I am one among the crowd and easily replaceable.	3.75	1.105
I try to improve my performance when my manager gives me negative feedback.	4.08	0.841
I feel demotivated when my views are ignored or not taken seriously by my manager.	3.86	0.99
It affects me when I see no clear career path for me in my organization.	4.33	0.717
I can't perform at my best if there are no clear performance expectations from my manager.	3.44	1.081
The insecure nature of my job worries me.	3.61	0.871
I can't perform at my best when deadlines are not specified.	3.42	1.131
Changes in location/projects affect my performance at work.	3.53	1.108
It affects my performance when I am faced with uncertain or undefined tasks at work.	3.5	1.159
It affects my performance at work if I do not have choice in terms of projects.	4	0.926
It affects my performance at work if there is no flexibility in terms of timings, work options etc.	3.78	0.989
I can't perform at my best at work if workloads or deadlines are imposed upon me.	3.03	1.207
I can't perform at my best at work when I have to follow other people's commands.	3.36	1.073
It affects my performance when I am unable to choose the methods to carry out my work.	3.75	0.874
It affects my performance when I am monitored at work.	3.31	1.238
In my relationships with my colleagues, I must feel bonded to them.	3.58	0.996
My Manager must go beyond the professional and take personal interest in my well-being.	2.86	0.99

In my relationship with my manager, I must feel supported at all times.	3.78	0.797
Socialization within the team on a regular basis, outside of work is a must.	3.53	1.108
It affects my performance at work if I don't feel supported by my team mates.	3.75	0.967
It affects my performance when there is no complete understanding within my team.	4.06	0.754
The performance management system (appraisal, rating system) in my company does not treat people fairly.	3.67	1.121
It affects me when people in a different skill earn more than me, despite similar nature of work.	3.5	1.108
It affects me when my manager is partial towards some members of the team.	4.03	0.941
It demotivates me when I am faced with unfair, persistent criticism at work.	4.19	0.822
It affects me when assumptions about me are made on the basis of my gender, language, place of origin etc.	4	1.146
It demotivates me when there are no grievance redressal forums within my organization where I can voice my concerns.	3.81	0.951
I behave very differently, often relaxed, when my Manager is not around.	3.33	1.146
It demotivates me when my manager says one thing and does another.	4.14	0.899
It affects me when my manager is secretive/ keeps me in the dark about important decisions.	4	0.956
It demotivates me when my manager can't push through my team's agenda in front of management.	4.11	0.887
I hesitate to speak with my manager and make my voice heard as I am unsure of his support.	2.83	1.384
I feel demotivated when my manager blames others/the system when things don't go as per plan.	3.67	0.956

Discussions

Individuals also derive their self-esteem from the work they do. In line with Oldham and Hackman Model, the greater the richness, variety, complexity of the tasks they perform at work, the greater the self-esteem. All those interviewed strongly felt challenging work was the most important element that made them feel good at work. This aspect of Status, which is derived from the quality and nature of one's work has not been adequately captured in David Rock's definition of Status.

Rock's definitions of Certainty also seem to be defined from an organizational change management perspective. Since the I.T industry in India is consolidated and quite stable now, this definition does not completely capture the other forms of uncertainty experience by the ambitious workforce in the I.T context. The other domains of autonomy and relatedness also drive positive work place behaviors enhancing collaboration but not to a great extent. Unfairness seems to play a key role among all the five domains that influence workplace collaboration, particularly because of the force-fitting of employees into the 'Bell Curve'.

The real eye-opener was the low levels of trust between employees and managers. This theme has been written about in the past by Chris Argyris, in his book, 'Overcoming organizational defenses: Facilitating organizational learning' wherein he says that emotional experiences and expressions of individuals are shaped by "cultural beliefs, socialization processes, and structural position". Thus these expressions are not necessarily natural or genuine. This results in people controlling one's inner feeling state and externally reflect an expected or desired state in order to produce a display that they deem appropriate in the given situation. As Chris Argyris (1990) in his book 'Overcoming Organizational Defenses: Facilitating Organizational Learning' puts it, "most individuals in our society (and in many societies throughout the world) are taught, through acculturation and socialization, a set of values, action strategies, and skills that lead them to respond automatically to threatening issues by "easing in," "appropriately covering," or by "being civilized".

Individuals manage their emotions in almost all avenues of social interaction but this management of emotions is particularly important in the workplace context. This is because all organizations have set goals and objectives. The key job of managers and leaders is to ensure these objectives are achieved. Every time there is a discrepancy between intended goals and actual results, there is a need for the organization to investigate into the causes. This is when organizational learning is said to occur. For this to happen, valid information needs to be put on the table but the normal tendency of human beings is to assume that "truth is good idea when it is non-threatening' When the truth is threatening, the tendency is to hide facts and act as if one is not hiding facts. The organization may not always be the problem, it may be the victim of such behavior of the individuals within it. However, once it has been made the victim, it often colludes to maintain and reinforce the problem. Chris Argyris suggests that this results in "making threatening issues undiscussable and then to making their undiscussability undiscussable".

Some of the symptoms of this malaise in organizations mentioned in Chris Argyris' book are:

1. Blaming others or the system when poor decisions are made
   Whenever important errors are discovered, people tend to find fault with others or the system. Politically sophisticated actions are used to cover up the error. The truth is often sugar-coated and the blame is usually pinned on the system that refuses to re-think policies.
2. Organizations do not move beyond tried and test ways
   New ideas are always dismissed with statements like 'That's how we do things around here' or 'it's not in my control'.
3. Upward communication for difficult issues is often lacking
   Communication from those below the managers about deadlines, expectations etc. are often ignored either due to lack of respect for the rank and file or because they feel bosses don't want to hear what the rank thinks.

While this behavior is not restricted just to managers, because of the positions of influence they hold in organizations, as gatekeepers to an employee's future

growth and other aspects, their behavior tends to percolate down to the grassroots and define the acceptable and unacceptable behaviors

What happens in such organizations is that

- Managers and employees are out of touch with client needs
- There is poor interaction between various functional groups
- Managers are neither competent nor cooperative and cannot drive change
- Low levels of trust
- No transparency- especially for those at the grassroots

The root cause of such problems is the discrepancy between the set of beliefs and values people hold about how to manage their lives and the actual rules they use to manage their beliefs. The former is referred to by Chris Argyris as espoused theory and the latter us theory-in-use. Theories-in-use are the 'master programs people use to be in control' of their lives- to win, to control and to not upset people. It may seem paradoxical as the authoritarian nature of the theories-in-use mean that recipients must be submissive, passive and dependent. In effect, it is an effective means by which one influence others, win over them and make them ineffective. Crafting such strategies, Chris calls them 'defensive routines, without upsetting people, requires skill and this often happens automatically or spontaneously. Their existence is also often taken for granted. And although we are not aware that we are doing so, others are aware. Indeed this finds support even from cognitive Neuroscience, which tries to find neural correlates to genuineness and transparency. The Theory of the mind is one such theory that plays a critical role in interpersonal communication and social relationships The Theory of the mind refers to the "distinction between what one knows, thinks, intends or feels versus what others know, think, intend or feel". A research by Heisel and Betty (2006) measured changes in electrical activity in two regions of the cortex (orbitofrontal cortex and dorsolateral prefrontal cortex) associated with theory of mind operations. Their empirical findings "support the fact that individuals produce distinct neurological signatures when they think about others' mental states". But people never discuss their thoughts in public primarily because such behaviors are rewarded by organizational cultures because it indicates caring and concern for people and bringing these issues to light actually ends

up triggering defensive actions when one tries to bypass these defensive routines. As a result of this, cynicism sets in as people tend to ignore positive intentions, the organization becomes minefield of politics. Individuals will start feeling that change is hopeless as it will only open a can of worms and is a case where the cure would be worse than the disease. This often results in the creation of a grey underground that bypasses the defensive routines and gets things done. This is absolutely detrimental to workplace collaboration as the presence of defensiveness inhibits organizational learning. Therefore this domain is extremely critical and needs to be included in the model for Collaboration and influence at work.

Limitations

For the qualitative part of the study, the small number of respondents -6- could be a deterrent to drawing any conclusive inferences purely from my research. But the fact that the newly identified domain has been previously identified by Chris Argyris as a blocker to organizational learning adds weight to my conclusions from the qualitative study and adds weight to the SCARFD model of collaboration suggested by my research. Further no analysis was carried out to uncover is differences in opinions exist among managers and non-managers, males and females due to the limited sample size. The study also did not clearly state, with certainty, the degree to which each of the domains affect collaboration at workplaces. Although fairness seems to be the major domain in the I.T set-up, it need not be so in other kinds of organizations. Further the interactions between virtual team members (client/ on-site employees) and employees that is a part of the everyday life in the I.T workplace has not been captured, despite the best efforts of the author to do so. Perhaps it is the author's fault but this is an area that ideally been included in the analysis.

With respect to the quantitative study, the obvious limitation is the faulty nature of the instrument used to quantitatively measure the SCARFD model suggested at the end of the Qualitative study. A part of the reason for this could be the fact that only 36 responses were received which makes it difficult to draw any inferences.

The limited nature of the sample, even in the face of good instrument validity, could not have captured differences in perceptions of managerial and non-managerial population or differences in sex etc.

Conclusion and Managerial Implications

It is the long history of humankind (and animal kind, too) those who learned to collaborate and improvise most effectively have prevailed.

—Charles Darwin

As organizations today seek innovation to propel growth, it is critical that organizations must continually learn and improve. But managers and leaders must realize that merely having the right set of incentives alone cannot enable this. Neuroscience shows us how wrong this assumption is. The human brain is so wired that it thinks well when work evokes positive emotions and that even the slightest hint of threat at work places forces it to shut down the cognitive processing. The SCARFD model of collaboration and influence attempts to paint the levers that shuts down or enables the 'Approach' state in us. Here's how we can ask the right questions and ensure that we create the right set of working conditions to enable learning.

Status:

Status is the position that we find ourselves in our organizations. Our status at the work place activates the dopamine receptors. While higher one's position within organizations, better one would feel about oneself. However, there is only limited 'room at the top' and hence one needs to find innovative ways of unleashing the same pleasure-inducing effects of Status in organizations. A perception of choice in terms of projects at work, deadlines etc. can be created as it implies respect for the other person. Of course, this does not imply playing the person merely by creating a perception. The employee of course would recognize the inauthentic nature of this gesture and in fact could result in lowered trust levels. Managers too must be sensitized in the right behaviors that make people at work feel respected. Recognition in public must also be encouraged but not in a way that recognition loses its importance through rampant recognition as a form of compensation (against loss in promotion). The PMS system should also be modified to incorporate both work and personal learning goals. A few companies have '3+1' goals which track 3 work-related

and one personal growth achievement thereby signally the importance of learning within the organization.

Particularly, organizations need to ask themselves the following questions:

- How can employees be empowered within organizations, without actually promoting?
- What actions can be taken to make the employees feel better about themselves?
- What kind of communicative and interpersonal behaviors must managers exhibit to ensure their employees feel respected and hence feel higher on status?
- How can the performance management system be improved from merely tracking whether the person has achieved his goals and position it more towards personal and professional growth and learning?

Certainty:

This definition of certainty talks more about prediction based on one's past experience as the brain craves information. Although certain amounts of uncertainty is fine, beyond a point our brains cannot tolerate it. People higher in positions experience positive effects due to less uncertainty and the fact that they are closer to the 'information source', which in itself activates the dopamine receptors. But for the Average Joe this is not the case. Openness and transparency within organizations to create a sense of certainty. Organizations need to ask themselves the following questions to judge how uncertainty- safe they are:

- What can we do to increase our sense of certainty about our values and commitments within organizations?
- What policies, processes, and practices do we need to establish, and consistently enforce, to increase everyone's sense of certainty?
- In what contexts do individuals and group members feel safe- what is the 'Uncertainty tolerance limit' beyond which uncertainty proves stressful?
- How can we manage information flow and exchanges to promote certainty?

Autonomy:

Autonomy is the ability to have and make choices and, in a sense, to have the illusion of control. Autonomy is of course related to one's position. The higher up the ladder, you go, the more control you have over your life. But as organizations we need to ask ourselves if this can be replicated down the line, for the average employee. Small gestures such as soliciting employee input for his tasks, deadlines, location preferences and such other details can go a long way in creating perceptions of autonomy. Organizations need realize that employees are human beings too and that lack of autonomy implies that people have no choice or control over their lives which can be very damaging to a person's self-esteem too. They could ask themselves the following questions:

- In what ways could employees support each other's learning and work without administrative oversight?
- What kind of team routines could be implemented that ensure learning occurs without much monitoring at work?
- How might we increase the amount of discretion or choice that employees have without compromising on organizational goals?
- In what context could employees have greater choice about what they learn, how they learn, or how they demonstrate their learning attainment?

Relatedness:

Relatedness is all about who is in our "in group" and who is in our "out group." whether we consider others in our teams, friends or foes. A great amount of this depends on the incentive systems within organizations- do they promote aggression because of the individual nature of work and the fact that compensation is tied to this? But given that work is such a large part of our lives, it does make sense to have a stress-free time at work, at least in terms of one's teammates. Particularly in I.T organizations, most of work occurs in teams where work of one is dependent on the other and not much difference exists between salaries of employees at lower levels. Surely it does make sense to promote team work. Further if one seeks to do value-adding work,

collaboration within and across teams is a must. In this context, organizations need to ask themselves the following questions:

- How might we increase the team's ability to work together towards adding value through shared goals?
- What can we collaborate on at work that may add value and increase our regard for each other's expertise?
- How can we create formal and informal opportunities to celebrate what we care about or value?
- What kind of socialization measures can we establish to earn more about each other's interests, passions, and work?
- How do we work as 'one group' and prevent formation of cliques.

Fairness:

Fairness is the perception that we are treated justly and equitably. It is the need for equitable exchange. Perceptions of fairness are created on the basis of employees' perceptions of policies, processes, and practices within organizations. Organizations can "increase sense of fairness with clear, explicit expectations and consistently applied norms, incentives, and consequences, and through opportunities to participate in the norm-setting or review processes."

The following questions might help managers who wish to engender fairness within their organizations:

- What processes could we implement to promote equitable and fair allocation of scarce resources such as monetary and non-monetary rewards?
- How might we increase the consistency and transparency of our standards and expectations?
- Can we involve employees in defining policies or in the identification of standards?
- Can we institute a system of appeals within the organization to promote the perception of fairness? What could be the systems that could come under these Grievance mechanisms?

Defensiveness:

> If we can by any method establish a relation of mutual trust between the laborer and the employer, we shall lay the foundation stone of a structure that will endure for all time.
>
> Mark Hanna
> 19th Century Industrialist

Defensiveness signifies a breakdown of trust that occurs within organizations due to perceptions of secrecy, lack of openness and transparency, as perceived by employees. It could occur between employees and management and also between employees when one perceives the others intentions as unauthentic but refuses to say so in public due to the social pressure of wanting to be respectful to the sentiments of the other. People often end up taking a stand and end up sticking to it, partly because they want to 'save face' and partly because of the inability to trash out one's problems in public with the other party. The result is organization-wide cynicism that is extremely detrimental to organizations. This is one the most critical domains that impact organizational learning through collaboration and influence, which is the point of the SCARF model and hence has been added.

- The questions organizations should ask themselves to ensure a non-defensive organization, ready for learning are the following:
- How do we break out of the mindset of employees blaming the system/process when things go wrong?
- How do we ensure systems, policies and process are not Status quo-ist and continually reinvent themselves?
- How do we encourage people to speak their mind and openly express their concerns?
- How do we ensure we align our systems, processed and policies to reward openness?

The days when people responded to purely economic needs are on their way out. With greater emphasis on work-life balance, employees will respond to incentives at workplace only if it supports their social needs. The SCARFD model is thus a comprehensive model that reduces the threating nature of the work place by ensuring working conditions that create greater engagement

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Appendix

Generic questions posed during Qualitative interviews:

Describe your ideal workplace.

Describe your ideal manager.

Describe your ideal team mates.

Describe your ideal company.

What was your happiest moment at work? Why?

When have you felt most unproductive/productive at work? What happened then?

What makes your day at work? What breaks it?

Have you been in a project you did not know what was expected of you?

What was your saddest moment at work?

Challenges faced by you?

When was the last time you were forced into something you did not want to work in? How did you feel?

How are you interactions with your team members?

Three things you like/don't like about your manager.

When was the last time your manager made you feel good about yourself?

When was the last time your manager made you feel bad?

What motivates you in your workplace?

SCARF- related questions posed during Qualitative interviews:

Autonomy: How much choice did you have in taking your project, doing your work, goals, timings etc.?

Certainty: Have you ever experienced uncertainty in your workplace?

Status: How important is promotion to you? If not promotion, the what?
Have you ever been publicly acknowledged for your contributions?
What kind recognition initiatives you have in your work place?

Relatedness: Have you ever felt alone in your group?

Fairness: Have you ever felt like you have been treated unfairly by your manager/company?