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Affect of Adversity Quotient on the Occupational Stress of IT Managers in India

Sandeep Singh[a], Dr.Tanu Sharma[b*]

[a] Department of H.S.S., Jaypee University of Information Technology, Solan, 173234, India

[b]Department of H.S.S., Jaypee University of Information Technology, Solan, 173234, India

Abstract

All people experience adversity during their lifetime. Dictionary defines adversity as a difficult or unlucky situation or event. Challenges, disappointments, sadness, despair and hopelessness are difficult parts of life, making people react in peculiar ways to get over these. Each person's happiness, growth and success depend largely on his or her responses to the difficulties of life. The science of resilience or the adversity quotient (AQ) is a measure of the capability of an individual in facing the difficult situations in life. Dr. Paul Stoltz coined the term Adversity Quotient in 1997 in his book '*Adversity Quotient: Turning Obstacles Into Opportunities*'[1] . Stress is a result of an adverse or difficult or demanding situation which has psychological or emotional tension or pressure on an individual. Stress can be caused by a string of things, from physical like some threat or danger to emotional such as tension or worry at job or for family. Occupational stress is caused by unfavourable conditions at the work place. These conditions may be related to the organizational policies such as downsizing or re-designing leading to fear of job-loss, politics among the co-workers, excessive demanding supervisors, overload of work leading to burnout or lack of coordination among the teams causing bottlenecks and unnecessary delays. Such stress is even higher among the IT professionals, often leading to unpleasant and explosive situations. This research is an attempt to uncover if there exists any link among the Adversity Quotient and Occupational Stress of IT managers in India. Results indicate that there is a significant relationship between Adversity Quotient and Occupational Stress.

Keywords: Adversity; Adversity Quotient; Stress; Occupational Stress; IT Professionals

1. Introduction

Organizations of today are very demanding as they require the workforce to manage time for multitasking in order to meet unrealistic deadlines in the cut throat competition. This intense pressure of performance is

* * Corresponding author. Tel.: +91-980-542-3713.
E-mail address: tanu.sharma@juit.ac.in.

felt even more in the information technology industry as they deal with the ever changing and constantly evolving needs of global clientage. Information technological companies are infamous for their fast and tightly placed work schedules giving rise to highly stressful workers. IT companies have always been rated top among the most stressful organizations to work for. Apple, Intel, eBay, IBM, etc. have always been reported poorly in job stress. In India, IT industry got a tremendous boost after globalization and liberalization of Indian economy.

The government also chalked favorable policies to help the IT industry to grow resulting in placing India among the top of the growing IT industries in Asia Pacific region. The focus on revolutionizing IT industry has also paid huge dividends with IT contributing more than 10% to the GDP of India. But this growth came at a huge cost; that of Human Resources. Physical problems like wrist pains, slip disc, fatigue in eyes, headaches, etc. became common due to long hours of sitting in front of monitors. As other countries and organizations realized the potential of IT, many new players entered the arena thereby bringing in increased competition. This, coupled with the restive global economic and political environment, has put tremendous pressure on IT organizations to be efficient as well as cost effective. The ongoing scenario of recession has further added to the volatility in IT industry, resulting in increased job insecurity, wage cuts, improper working conditions and rapid obsolescence of skills thus making IT industry one of the most stressful industries to work in India. The more experienced you are in IT industry, the more stress you have to face as with the increase in responsibilities the deadline become stricter, the teams become bigger and tougher to manage and the clients become more demanding. But still we find IT managers who succeed despite facing insurmountable odds. While their colleagues break under the avalanche of rapid change, these individuals invariably rise, break the shackles and become successful. They see opportunity in every challenge and face hardships with resilience. This ability to bounce back after every adversity is what enhances their capability to climb up the ladder of the success.

1.1 Adversity Quotient

Adversity is a difficult situation or event that brings challenges in the lives of people. The reaction of individuals towards the adversity determines whether it will bring disappointment, sadness, despair and hopelessness or happiness, growth and success for them. Adversity quotient (AQ), also known as the science of resilience, attempts to measures the capability of an individual to handle adversities in life. Individuals having high adversity quotient continues to move forward successfully and keep rising in their life as they have the ability to endure considerable adversities. Adversity Quotient comprises of five different components called the CO2RE dimensions (fig.1).
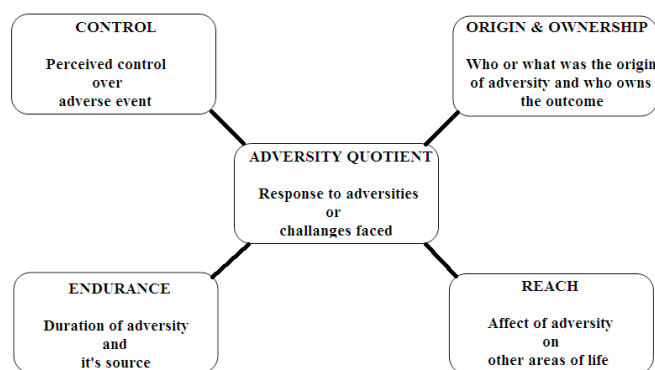

Fig.1 - The CO2RE dimensions of Adversity Quotient

- The Control dimension measures the control, as perceived by an individual, over an adverse event.

- The Origin and Ownership measures what or who an individual sees as the origin of the adverse situation and how much does he see himself responsible for the same.

- The Reach dimension measures the spillover effect of the adversity into the other areas of the person's life i.e. whether or not the consequences of current adversity will have any bearing on the person's other aspects of life.

- The Endurance dimension is the time span in which one expects the adversity to last.

A little research has been done in the area of adversity quotient. AQ is positively related with emotional quotient and other quotients of intelligence[2]. Rest of the studies have linked adversity quotient with academic performance[3][4], achievement motivation[5], social skills[6], job performance[7][8], stress[9] leadership skills[10].

1.2 Occupational Stress

Stress is defined as a condition of psychological or emotional tension or anxiety due to undesirable or challenging circumstances. When undesirable or trying circumstances result in tension or strain either mentally or emotionally, it is stress. Stress can be caused by a string of things, from physical like some threat or danger to emotional such as tension or worry at job or for family. Occupational stress is caused by unfavourable conditions at the work place. These conditions may be related to the organizational policies such as downsizing or re-designing leading to fear of job-loss, politics among the co-workers, excessive demanding supervisors, overload of work leading to burnout or lack of coordination among the teams causing bottlenecks and unnecessary delays. Such stress is even higher in the service sector where there is a direct contact between the employees and the customers, often leading to unpleasant and explosive situations. Srivastava and Singh identified twelve dimensions or areas which determine occupational stress[11] (fig. 2):
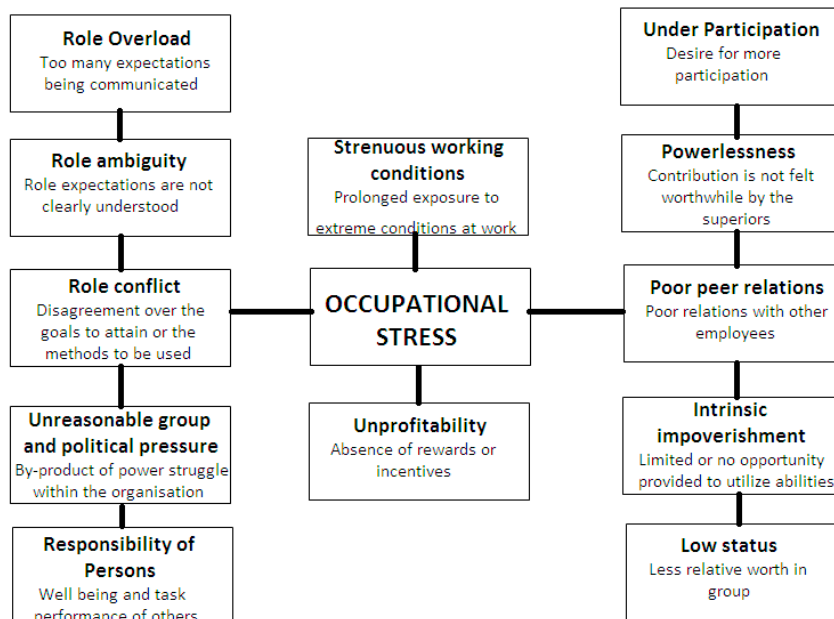

Fig.2 - The dimensions of occupational Stress

- Role over-load–It is a situation in which there are simply too many expectations being communicated to persons at a given point of time.

- Role ambiguity– It arises when there is no clear understanding of the expectations from the employees and there is ambiguity in the employees about what are they supposed to do.

- Role conflict– When there are differences over what goals are to be achieved or which methods are to be used to accomplish those goals.

- Unreasonable group and political pressure – When power struggles between employees heightens pressure and competition within the organisation.

- Responsibility for persons– When the job role includes either responsibility of the well being or getting required performance from others.

- Under participation–When employees want more participation than they have they are participation deprived leading to decline in positive feelings.

- Powerlessness – When the employees feel that the superiors don't appreciate their contribution to the organisation.

- Poor peer relations– Unfriendly co-workers, whether they are boss, colleagues, subordinates or workers in other department, can be unpleasant to work with for a variety of reasons.

- Intrinsic impoverishment– When monotonous nature of work provides limited or no opportunity to utilize abilities.

- Low status– Status is the measure of relative worth conferred upon an individual by the group.

- Strenuous working conditions– When working conditions become difficult as a result of constant and long exposures to high levels of noise, heat, cold visibility and lack of privacy.

- Unprofitability – When employees feel that their salary don't commensurate with the input or experiences or there is absence of incentives or rewards.

An array of theories exists that provide diverse clarifications on stress. But all of them broadly agree to the description of stress as individual's response to the demands and pressures exerted by environmental forces. Beehr and Newman defined job stress as, "a condition arising from the interaction of people and their jobs and characterized by changes within people that force them to deviate from their normal functioning"[12]. The increased focus of researchers on occupational stress[13][14][15][16] establishes the adverse impact of job-related stress on the productivity, employee health, worker turnover and absenteeism.

1.3 Adversity quotient and occupational stress

A lot of emphasis has been laid all over the world on occupational stress and its psychological and physiological effects on the job occupants. But no study has been conducted till date which links adversity quotient with the ability of an individual to handle occupational stress.

2. Research Methodology

The research is exploratory in nature as no related study has been conducted in India. The intend of this

research is to recognize the link between Adversity Quotient and Occupational Stress in Indian setup.

2.1 Sample

Snowball sampling was chosen for data collection. Data was collected from 102 middle level managers of IT industry working in different organizations in India. Middle level managers are those who are responsible for at least two ranks below them.

2.2 Research Tools

Adversity Quotient is measured by the Adversity Response Profile (ARP), given by Dr. Paul Stoltz. The ARP gives 14 scenarios or events and measures CO2RE dimensions – i. Control, ii. Origin & Ownership, iii. Reach and iv. Endurance. The alpha reliability of the scale was 0.829.

Occupational Stress is measured using Occupational Stress Index (Srivastava, A.K., and Singh, A.P., 1981). The scale consists of 46 items. The questionnaire measures twelve factors of stress at work namely role over-load, role ambiguity, role conflict, unreasonable group and political pressure, responsibility for persons, under participation, powerlessness, poor peer relations, intrinsic impoverishment, low status, strenuous working conditions and unprofitability. The split-half internal consistency of the scale was 0.819.

3. Data Analysis

3.1 Demographic Analysis

102 managers participated in the study of which 69 (67.6%) were males and 33 (32.4%) were females. All the participants fell in 25-40 years bracket. The mean age was 32.76 years.

3.2 Adversity Quotient Construct

23 participants (23%) scored high on Adversity Quotient (AQ), 78 participants (76%) scored moderate on AQ and 1 participant (1%) scored low on AQ (Table-1).

3.3 Occupational Stress Construct

35 participants (34%) scored high on occupational stress, 64 (63%) scored moderate and 3 participants (3%) scored low on occupational stress (Table-1).

Table-1: Score Sheet of the Constructs

	Adversity Quotient		*Occupational Stress*	
	Range	Number of participants	Range	Number of participants
High	76-100	23%	156-230	34%
Medium	48-75	76%	123-155	63%
Low	<=47	1%	<=122	3%

3.4 Correlation Analysis of Adversity Quotient and Occupational Stress

There is a significant correlation (r= -.344, p<.01) between adversity quotient and occupational stress (Table-2). Out of twelve dimensions of occupational stress, eight are significantly correlated with adversity quotient: Role over-load (r= -.257, p<.01), Role conflict(r= -.269, p<.01), Unreasonable group and political pressure(r= -.211, p<.05), Responsibility for persons(r= -.246, p<.05), Under participation(r= -.273, p<.01), Poor peer relations(r=-.249, p<.05), Strenuous working conditions(r= -.246, p<.05) and Unprofitability(r= -.316, p<.01) (Table- 3).

Table 2 : Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	AQ & OS	102	-.344	.000

Table 3 – Correlations between Adversity Quotient and subscales of Occupational Stress

	Occupational Stress and it's subscales											
	RO	RA	RC	UGP	RP	UP	PL	PPR	IIM	LS	SWC	UN
AQ	-.257**	-.192	-.269**	-.211*	-.246*	-.273**	-.097	-.249*	-.153	-.135	-.246*	-.316**
Sig	.009	.053	.006	.034	.013	.005	.331	.012	.124	.175	.013	.001
N	102	102	102	102	102	102	102	102	102	102	102	102
**. Correlation is significant at the 0.01 level (2-tailed).												
*. Correlation is significant at the 0.05 level (2-tailed).												
N=102												

3.5 Regression Analysis of Adversity Quotient and Occupational Stress

The regression analysis of adversity quotient and occupational stress reveals that the AQ is significant in predicting the occupational stress (Table 4 and Table 5).

Table 4: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3973.370	1	3973.370	13.461	.000[b]
	Residual	29518.209	100	295.182		
	Total	33491.578	101			

a. Dependent Variable: OS
b. Predictors: (Constant), AQ

Table 5: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	198.928	13.362		14.888	.000
	AQ	-.710	.193	-.344	-3.669	.000

a. Dependent Variable: OS

3.6 Regression Analysis of dimensions of Adversity quotient and Occupational Stress

The regression analysis of the dimensions of adversity quotient and occupational stress reveals that the control dimension and reach dimension have significant predicting value over occupational stress (Table 6 and Table 7).

Table 6: ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	5850.763	4	1462.691	5.133	.001[b]
	Residual	27640.816	97	284.957		
	Total	33491.578	101			

a. Dependent Variable: OS
b. Predictors: (Constant), endurance, control, reach, ownership

Table 7: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	204.429	13.399		15.257	.000
	control	-1.533	.691	-.258	-2.217	.029
	ownership	-.245	.698	-.041	-.351	.726
	reach	-1.751	.649	-.303	-2.696	.008
	endurance	.438	.561	.088	.781	.437

a. Dependent Variable: OS

4. Findings

- The study reveals that there is a significant correlation between adversity quotient and occupational stress which implies that IT professionals in any adverse situation can successfully manage their occupational stress.
- Of the twelve dimensions of occupational stress, eight are significantly correlated with adversity quotient; role over-load, Role conflict, unreasonable group and political pressure, responsibility for persons, under participation, poor peer relations, strenuous working conditions and unprofitability. It implies that if the IT professionals work towards enhancing their adversity quotient, then they will have a significant work life balance, be more satisfied, contended, motivated and above all managing themselves in adverse situations and therefore coming out successfully and thus handling the various stress which comes from a dynamic, competitive IT environment will become easy and coping up with it less difficult.

5. Conclusion

Adverse situation and stress come second to the competitive environment in which IT professionals work. The 21st century business environment is not only about working for a 8 hour job but with it comes lots of adverse situations which IT professionals go through. These adverse situations cause stress and thus affect the work life balance. The best way to deal with the ever demanding occupational stress is to work on how to handle the adversities. A successful IT professional is the one who is able to draw a right relationship between his adversity handling and occupational stress. The study shows that the adversity quotient is a significant predictor of occupational stress. Thus professionals scoring high on adversity quotient are able to deal with their occupational stress in a better way as compared to others. The HR managers and professionals who are progressively working towards a healthy organisational climate and a stress free environment should aggressively take up this assignment of training the IT adversities. This will not only create a creative innovative environment but also help individuals to make a productive, efficient and effective workforce.

References

[1]. P. Stoltz. Adversity Quotient: Turning Obstacles into Opportunities. John Wiley & Sons, Inc., 1997, pp. 90 – 98.

[2]. Kumbanaruk ,T., & Maetheeponkul, T. Adversity Quotient (AQ), Emotional Quotient (EQ) and personality of Chinese businesspeople in Thailand and Chinese businesspeople in China. Journal of East Asian Studies. 2008; 13(1):1–18.

[3]. Huijuan,Z. (2009). The Adversity Quotient and Academic Performance among College Students at St. Joseph's College, Quezon City (Unpublished Undergraduate Thesis). St. Joseph's College, Quezon City.

[4]. Canivel, L.(2010). Principals' Adversity Quotient: Styles, Performance and Practices (Unpublished Masters' Thesis). University of the Philippines, Diliman.

[5]. Cornista, G. & Macasaet, C., (2013). Adversity Quotient and Achievement Motivation of Selected third Year and fourth Year Psychology Students of De La Salle Lipa (Unpublished Masters' Thesis). College of Education, Arts, and Sciences De La Salle Lipa.

[6]. Maureen, M.(2015). The level of Adversity Quotient and Social Skills of student leaders. (Unpublished Undergraduate Thesis). College of Education, Arts and Sciences De La Salle Lipa.

[7]. Tripathi, S. (2011). Use of Adversity Quotient in creating strong business leaders of tomorrow (Unpublished doctoral thesis). SNDT Women's University,Mumbai

[8]. Thi, L. (2007). Adversity quotient in Predicting job Performance viewed through the Perspective of The Big Five (Unpublished Masters' Thesis). Psykologiske institutt, University of Oslo.

[9]. Solis, D.B. & Lopez E.R., Stress Level and Adversity Quotient among Single Working Mothers. Asia Pacific Journal of Multidisciplinary Research, Vol. 3, No. 5, December 2015.

[10]. Barora, D. (2015). Adversity Quotient and Leadership Skills of School Administrators: Basis for Leadership Enhancement Program (Unpublished Masters' Thesis). Philippine Normal University, Visayas.

[11]. Srivastava, A.K. & Singh, A.P. (1981) Manual of the Occupational stress Index, Department of Psychology, Banaras Hindu University, Varanasi,.

[12]. Beehr, T.A. and Newman, J.E. (1978) Job Stress, Employee Health, and Organizational Effectiveness: A Facet Analysis, Model, and Literature Review. Personnel Psychology, 41, 665- 699.

[13]. Cooper, C.L., B.D. Kirkcaldy and J. Brown (1994), 'A model of job stress and physical health: the role of individual differences', Personality and Individual Differences, 16, 653–5.

[14]. Spielberger, C.D. and E.C. Reheiser (1994), 'Job stress in university, corporate and military personnel', International Journal of Stress Management, 1, 19–31.

[15]. Quick, J.C., J.D. Quick, D.L. Nelson and J.J.J. Hurrell (1997), Preventive Stress Management in Organizations, Washington, DC: American Psychological Association.

[16]. Spielberger, C.D., P.R. Vagg and C.F. Wasala (2002), 'Occupational stress: job pressures and lack of support', in J.C. Quick and L. Tetrick (eds), Handbook of Occupational Health Psychology,Washington, DC: American Psychological Association, pp. 185–200.