

JOB SATISFACTION AND ADVERSITY QUOTIENT: HOW CURRENT GENERATIONS DIFFER FROM THE EARLIER?

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Abstract: *Individual's capacity to cope with adversity appears to have a predictive capacity about other aspects of individual's functioning. In the recent past, adversity quotient, has become the frontrunner in advancing this ideology. Several studies of adversity quotient already established associations with variables such as performance, risk-taking, capacity for change, perseverance and productivity. This paper extends that tradition. First, there is a case made through review of literature the probable association between working generations, adversity quotient, and job satisfaction. Second, an analysis of the primary data collected through survey designed to test the hypothesized associations is presented. Lastly, the practical implications of the study in its capacity to feed into recruitment processes are discussed.*

Keywords: *Adversity Quotient, Job Satisfaction, Generations Millennial Psychology*

INTRODUCTION

The link between leadership qualities and business success has been a subject for perennial investigation. One strong correlate that emerged on the scene in explaining leadership in that regard was Adversity Quotient, a concept developed by Stoltz (1997). It simply refers to an individual's capacity to confront a problem situation and come out of it; in another sense, it is a measure of adaptability (Tian & Fan, 2014). In a similar vein, the link between motivation and performance of employees is explained by job satisfaction (Baard, Deci & Ryan, 2004; Millette & Gagne, 2008). Alternately, it could be said that job satisfaction drives achievement motivation (Cornista & Macasaet, 2013; Devakumar, 2012). Together, the concepts of adversity quotient and job satisfaction offer the possibility of studying and estimating an individual's loyalty and capacity to grow with organizations, especially in times of disruptive changes, dominant startup culture, changing working styles and expectations, and a norm of high attrition rates.

The problem of changing times however is not equally applicable to all. The younger and current generations, such as Gen Z, need to live it more than, for example, boomers who certainly have navigated significant extent of their career in earlier times. Two significant arguments may be made in

regard to generations and times: first, that times changed significantly and that different generations had to cope up with them; or second, that times did not change much but that generations had different ways of living with them. The first argument suggests that change in the working nature of generations is a direct consequence of times, whereas the second argument hints at a reverse causal relationship. In either case, there appears to be a starting evidence that the current generations tend to exhibit lower adversity quotient (Leung & Busiol, 2016).

While there are factors both in and out of work context that seem to cause attitudinal variations among different generations, the primary focus on this paper is if such variations actually manifest along with accountable variations in adversity quotient and job satisfaction; and if there a any causal relation in any direction. Such a study is imperative in making better recruitment decisions (Venkatesh & Shivanranjani, 2015a), early identification and nurturing of leadership potential (Stoner & Gilligan, 2002; Tripathi, 2011; Venkatesh & Shivanranjani, 2015b), enable higher performance (Bakare, 2014; Bautista, 2015; Carnivel, 2010), and reduce attrition (Venkatesh & Shivanranjani, 2015c).

Further in this paper, the literature around adversity quotient and job satisfaction is discussed briefly identifying if

and how the response of generations was explored, and a conceptual framework is presented. The later sections discuss the research design, instruments, data collection protocols followed, analysis and findings.

LITERATURE REVIEW

Adversity Quotient

Individuals, depending on their response to adversity, could be classified into three types: (i) climbers, those who respond positively to adversity, typically demonstrating high intelligence, efficiency, perseverance and need for achievement; (ii) campers, those who tend to hold on to their status quo in the face of adversity, with not much effort in moving positively to a better position; but high demonstration of need for survival, and (iii) quitters, those who in adverse situations tend to let circumstances play at will with no deliberate effort in taking command and control, most likely exhibiting characteristics of whining, resenting and feeling bitter. This classification is rendered directly from the metaphor of mountain climbing Stoltz (1997) used in his seminal work on Adversity Quotient.

Response to adversity itself could be understood in four different dimensions, namely:

(i) control, the extent to which an individual perceives that the circumstances can be influenced favorably, a measure of internal loci of control; (ii) ownership, the likelihood of an individual actioning in the given circumstances whether or not instructions are given out to act or otherwise, a measure of accountability and action orientation; (iii) reach, the extent to which an individual believes the adversity will influence life in general, a measure of perceived stress and burden; and (iv) endurance, the length of time for which an individual believes that the adversity will last, a measure of optimism.

While it appears that adversity quotient is a proxy measure for several other established concepts in psychological theory such as stress, Stoltz (1997; 2000) believes that the concept is considered generally robust since it draws its foundations from cognitive psychology, neurophysiology, and psychoneuroimmunology, a combination of disciplines dedicated to understanding reactions of individuals to situations such as stress, accident, and trauma. It is thus inferred that a positive reaction to adversity of the scale studied by these disciplines should indicate an elevated capacity of any individual to overcome any lesser and isolated issues. Also, the concept operates at three levels of adversity: (i) social adversity, (ii) workplace adversity, and (iii) individual adversity. Over time, several studies have

confirmed the reliability and validity of the concept (An, Woo, Song & Kim, 2014; Quan & Rui, 2008).

At the workplace, such as for example a university setting, it was identified that teachers' adversity quotient and performance were correlated (Cando & Villacastin, 2014), principals' adversity quotient was correlated to students' academic performance explaining how high adversity quotient leaders can create an enabling climate (Williams, 2003), and that leaders have generally grown through experiences of adversities (Haller, 2005). Most recent research from a managerial perspective on the subject includes efforts such as exploring if there is any relationship between adversity quotient and job stress (Singh & Sharma, 2017), estimating the capacity of adversity quotient to predict intention to quit (Trinh, 2017), and inquiring whether adversity quotient can in anyway indicate career adaptability of personnel (Shalihah, Yudianto & Hidayati, 2018).

Job Satisfaction and Adversity Quotient

With no regard to the direction and no implication of causation, considering all combinations in which the variables were studied, the relationship between job satisfaction and performance is still clearly positive, although only moderate over large samples as demonstrated by meta-analytic studies (Judge, Thoresen, Bono & Patton, 2001). In the industrial psychology research tradition, this relationship is referred to as a "holy grail" (Landy, 1989), and it is reasonable given the distributed and sometimes contradicting evidence on causation. However, it may not be denied that efforts of organizations to achieve performance are usually not isolated, but are tied up to satisfaction needs of personnel. It is in this context that job satisfaction still remains as one of the most studied concepts; although the approaches to understanding it are more varied and elaborate in recent times. Thus it may be justified to explore its association with adversity quotient.

Song and Woo (2015) studied the association between adversity quotient, job satisfaction and turnover intention of nursing staff in Korea. They had identified that adversity quotient and job satisfaction had high positive correlation, although their relationship with turnover intention was not significant. They had hypothesized that improving job satisfaction might be a means to reduce turnover intention, but did not find support for that argument.

Another group of scholars tried to explore which personal factors would be correlated to adversity quotient and job satisfaction (Bantang, Blanes, Caguiging, Estrella, & Macanlalay, 2013). Participants in this study were police officers. There were only two significant relationships

identified. One was between education attainment and adversity quotient, and the other was between job satisfaction and one dimension of adversity quotient, which is ownership or accountability and action orientation in adverse situations. The participants in general had medium to high tenure in organizations and low scores on adversity quotient. The same study was replicated later in an Indian setting (Kumar, 2016). The findings were similar. In both cases, the recommendations were to have the participants focus on attainment of better education and skilling.

Paramanandam and Shweta (2013) studied adversity quotient as a predictor of job satisfaction. Participants in their study were managerial personnel in textile industry. Their findings indicated that there was a significant relationship between job satisfaction and adversity quotient, and as much as seventeen percent of variation in adversity quotient scores are explained by variance in job satisfaction, all other variables held constant.

The relationship between adversity quotient and job performance appears to be moderated by a presence of corresponding intelligence quotient (Villagonzalo, 2016) and emotional quotient (Daloos, 2015). There is not much evidence that the relationship is direct (Albana, Isidro & Cabrera, 2015), although the way adversity quotient accounts for other self-evaluation concepts such as loci of control lead to an expectation of the relationship. Some studies argue that tests of personality are better predictors of job performance (Thi, 2007) instead of adversity quotient. However, such efforts point to as much optimism as they point to skepticism.

Generations and Adversity Quotient

It appears after scanning the extant literature of adversity quotient, more than two-hundred abstracts and seventy-five full-text articles that could be accessed, that there has been no effort in linking generations and adversity quotient. There are only signals that could be drawn in this regard from studies that investigated the relationship between demographic variables among which age and experience could be considered as proxy signals for generation to which participants belong.

For example, Shen (2015) studied the relationship between basic demographic variables and adversity quotient. The findings indicated that there was a significant difference in adversity quotient profiles of participants in different age groups, and also different levels of experience. These findings were in contrast to findings of an earlier study (Ao, Deng & Wu, 2009) which concluded that demographic variables did not influence adversity quotient. Coexistence of these results

make adversity quotient appear like the Schrodinger's cat problem, but these studies had different participant profiles which could partly explain the differences in results. While Shen (2015) had Taiwanese working population, more than sixty-five percent who were over thirty-years in age typifying GenX, the other study was took freshmen in a statistics class as participants typifying GenZ. Put together, these studies hint at the possibility that not only education, occupation, but age is a likely contribution to variance in adversity quotient as it is studied.

More interesting perspective comes from the study of Parvathy and Praseeda (2014) where the idea of transferability of the capacity to deal with adversities was explored in the teacher-student dyads. This study too hints at accommodating the idea that age influences adversity quotient as a given. The participants for the study were student teachers from a B.Ed course who responded to an adversity quotient survey and whose academic problems were captured during their study period. Although generalization is susceptible, the pool of participants from this study are typical of a Gen Y age group. Findings indicated that the academic problems and adversity quotient were negatively correlated.

RESEARCH METHODOLOGY

Conceptual Framework and Hypothesis

The objectives of this study have a fulcrum that lies in exploring the generational differences that may influence the association between adversity quotient and job satisfaction. The number of job changes is also taken into the study since it appears to be a proven indicator of generational differences (Lyons, Schweitzer, Ng & Kuron, 2012; Lyons, Schweitzer & Ng, 2015). The conceptual model for investigation may be depicted as below:

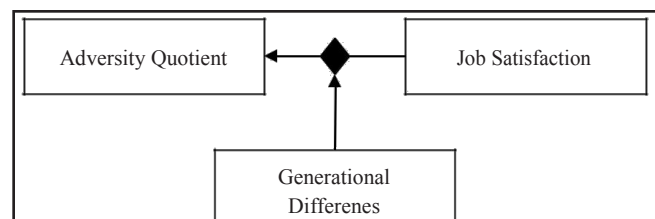


Fig. 1

More specifically, the working hypotheses is that job satisfaction influences adversity quotient; and that adversity quotient would be different among different generations.

Measures, Sample, Data

The study is designed as a quasi-experimental study using a survey method. Adversity Quotient is ascertained using an

instrument designed by Stoltz (1997) and made available on the website for promoting the concept. The survey has 20-items, divided into four-groups, each measuring a specific sub-dimension namely Control, Ownership, Reach, and Endurance. Together, these four groups are used to profile one's adversity quotient, and are often referred to as forming a CORE Profile of participants.

Job Satisfaction is measured using the short-form of Minnesota Job Satisfaction Questionnaire (Weiss, Dawis & England, 1967). It is one of the most used instruments in its field of study, validated across different cultures and contexts. This instrument too has 20-items; and it provides three measures of job satisfaction: (i) intrinsic job satisfaction, (ii) extrinsic job satisfaction, and (iii) overall job satisfaction. Demographic variables captured include age, total experience, and number of job changes.

Population for the study was constituted by working individuals of all age groups. No restrictions were applied yet since the study was exploratory in nature. Snowball sampling was used with the researcher inviting few participants upfront and then rolling it to other through the initial set of participants. Participants were assured of anonymity of their responses and were told that the survey was only for academic and not diagnostic purposes. While this approach may not be the best, it still suits the purpose of uncovering any salient relationships between the variables taken up for the study. The survey was floated using Google Forms, and 109 legible responses were gathered.

Classification of participants as belonging to a specific generation was made using a web reference on the subject¹. The choice of reference could always be debated, but irrespective of the source, the classification is generally difficult to justify in making sharp cuts using reference years. In this paper, GenX refers to individuals born between 1966 and 1976 (17 Participants); GenY refers to individuals born between 1977 and 1994 (88 Participants); and GenZ refers to individuals born after 1994 (4 Participants). The average age, experience, and number of job changes of participants were 35.2 years, 10.6 years, and 2.5 changes; with standard deviations of 7.5 years, 6.5 years, and 1.8 changes, respectively.

DATA ANALYSIS AND DISCUSSION

Cronbach alpha of each sub-dimension of both scales was in acceptable range. The summary of internal consistency measure is given in Table 1 below.

¹ <http://socialmarketing.org/archives/generations-xy-z-and-the-others/>

Table 1: Internal Consistency Measured by Cronbach Alpha

Dimension	95% Confidence Interval	
	Lower Value	Upper Value
Adversity Quotient - Control	0.63	0.80
Adversity Quotient - Ownership	0.75	0.87
Adversity Quotient - Reach	0.74	0.86
Adversity Quotient - Endurance	0.65	0.81
Job Satisfaction - Intrinsic	0.87	0.93
Job Satisfaction - Extrinsic	0.77	0.88

All data analysis was carried out in R, Version 3.4.3. Since the hypotheses pursue multiple variables including the subdimensions of adversity quotient and job satisfaction, along with generational differences, multivariate tests of normality and multivariate tests of hypotheses were chosen. Generalized Shapiro-Wilk Test for normality, performed using the functions available in mvShapiroTest package, returned a p-value of 0.05018 which may be just enough to reject the null hypothesis that data may not be normally distributed.

Since the normality assumption is satisfied, further hypothesis tests are taken at two levels: first, at the level of sub-dimensions of adversity quotient; and second, at an overall level of adversity quotient to identify whether or not job satisfaction and generational differences influence adversity quotient.

For the first series of tests, linear fitting using ordinary least squares is made Table 2 to Table 5. It can be seen that the model efficiency in the case of control (Table 2), ownership (Table 3) and reach (Table 4) dimensions of adversity quotient is poor with low F-scores of 0.8246, 1.108, 1.246; complemented with p-values of 0.5683, 0.364, and 0.2848 respectively. In case of reach, although the model efficiency is poor, it appears that job satisfaction, both extrinsic (at p-value of <0.001) and intrinsic (at p-value of 0.05) are significantly influencing; however the same is not true with other variables such as experience or generational differences. In case of endurance (Table 5), the F-value is 4.807 and the p-value is much less than 0.001. The adjusted r-square too is greater than 0.19 indicating strong correlations in the model. In this case, it is evident that intrinsic job satisfaction (at p-value of <0.05), number of job changes (at p-value of <0.001) and total experience (at p-value of <0.1) are influencing endurance; and perhaps also have the potential to influence overall adversity quotient.

For the overall test, MANOVA using Hotelling-Lawley test is performed since there are in effect multiple dependent variables and independent variables, shown in Table 6. Other sophisticated options such as canonical correlations or principal components based analyses were not considered since the quantity of data available was small, and the purpose of the study being exploratory in nature. It can be seen that both dimensions of job satisfaction, intrinsic (at

p-value of <0.001) and extrinsic (at p-value of <0.05), along with the number of job changes (at p-value of <0.1), with varying levels of statistical significance, seem to influence overall adversity quotient.

On the whole, the results of the analysis seem to confirm the working hypothesis of the study; that adversity quotient is definitely influenced by job satisfaction but not much by generational differences.

Table 2: AQ, Control - Influence of Job Satisfaction and Generational Differences Model Efficiency

Min	First Quartile	Median	Third Quartile	Max	
-2.3777	-0.702	0.1294	0.6104	2.2979	
Residual standard error: 0.9683 on 101 degrees of freedom					
Coefficients:	Estimate	Std. Error	t value	Pr(> t)	Significance
(Intercept)	2.376	1.215	1.956	0.053	.
aqs\$JSIntrinsic	0.431	0.279	1.545	0.126	
aqs\$JSExtrinsic	-0.337	0.247	-1.363	0.176	
aqs\$TotExp	-0.009	0.023	-0.379	0.705	
aqs\$JobChgs	0.055	0.055	1.000	0.320	
aqs\$GenGenX	1.010	1.005	1.004	0.318	
aqs\$GenGenY	0.639	1.051	0.608	0.545	
aqs\$GenGenZ	1.036	1.258	0.824	0.412	
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

Multiple R-squared: 0.05412, Adjusted R-squared: -0.01143 F-statistic: 0.8256 on 7 and 101 DF, p-value: 0.5683 Residuals:

Table 3: AQ, Ownership - Influence of Job Satisfaction and Generational Differences

Model Efficiency:					
Multiple R-squared: 0.07132, Adjusted R-squared: 0.0069517					
F-statistic: 1.108 on 7 and 101 DF, p-value: 0.364					
Residuals:					
Min	First Quartile	Median	Third Quartile	Max	
-2.3948	-0.9091	0	0.9089	2.8356	
Residual standard error: 1.146 on 101 degrees of freedom					
Coefficients:					
	Estimate	Std. Error	t value	Pr(> t)	Significance
(Intercept)	3.172	1.438	2.207	0.030	*
aqs\$JSIntrinsic	-0.302	0.330	-0.916	0.362	
aqs\$JSExtrinsic	0.571	0.293	1.950	0.054	.
aqs\$TotExp	-0.003	0.027	-0.112	0.911	
aqs\$JobChgs	0.036	0.065	0.551	0.583	
aqs\$GenGenX	-1.006	1.190	-0.846	0.400	
aqs\$GenGenY	-1.085	1.244	-0.872	0.385	
aqs\$GenGenZ	-1.331	1.489	-0.894	0.374	
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

Table 4: AQ, Reach - Influence of Job Satisfaction and Generational

Min	First Quartile	Median	Third Quartile	Max	
-2.4562	-0.6598	0	0.5658	2.9577	
Residual standard error: 0.9781 on 101 degrees of freedom					
Coefficients:					
	Estimate	Std. Error	t value	Pr(> t)	Significance
(Intercept)	4.396	1.227	3.582	0.001	***
aqs\$JSIntrinsic	-0.738	0.282	-2.622	0.010	*
aqs\$JSExtrinsic	0.684	0.250	2.736	0.007	**
aqs\$TotExp	-0.008	0.023	-0.362	0.718	
aqs\$JobChgs	0.010	0.055	0.173	0.863	
aqs\$GenGenX	-0.864	1.016	-0.850	0.397	
aqs\$GenGenY	-0.773	1.062	-0.728	0.468	
aqs\$GenGenZ	-1.203	1.271	-0.946	0.346	
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

Differences Model Efficiency:

Multiple R-squared: 0.07952, Adjusted R-squared: 0.01572 F-statistic: 1.246 on 7 and 101 DF, p-value: 0.2848 Residuals:

Table 5: AQ, Endurance - Influence of Job Satisfaction and Generational Differences Model Efficiency

Min	First Quartile	Median	Third Quartile	Max	
-1.69613	-0.65335	0.00546	0.55322	2.00152	
Residual standard error: 0.8479 on 101 degrees of freedom					
Coefficients:					
	Estimate	Std. Error	t value	Pr(> t)	Significance
(Intercept)	5.016	1.064	4.715	0.000	***
aqs\$JSIntrinsic	-0.618	0.244	-2.532	0.013	*
aqs\$JSExtrinsic	0.123	0.217	0.566	0.573	
aqs\$TotExp	-0.033	0.020	-1.675	0.097	.
aqs\$JobChgs	0.138	0.048	2.891	0.005	**
aqs\$GenGenX	0.158	0.880	0.180	0.858	
aqs\$GenGenY	0.053	0.921	0.058	0.954	
aqs\$GenGenZ	0.456	1.102	0.414	0.680	
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

Multiple R-squared: 0.2499, Adjusted R-squared: 0.1979 F-statistic: 4.807 on 7 and 101 DF, p-value: 0.0001059 Residuals:

Table 6: MANOVA Hotelling-Lawley Test

	Hotelling-Lawley	approx F	num df	den df	Pr (>F)	Significance
aqs\$JSIntrinsic	0.305182	7.4769	4	98	2.68E-05	***
aqs\$JSExtrinsic	0.129101	3.163	4	98	0.01721	*
	Hotelling-Lawley	approx F	num df	den df	Pr (>F)	Significance
aqs\$TotExp	0.040537	0.9932	4	98	0.41506	
aqs\$JobChgs	0.093361	2.2874	4	98	0.06535	.
aqs\$Gen	0.06437	0.5185	12	290	0.90229	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

CONCLUSION

The study was conducted on the premise that adversity quotient is indeed a reliable predictor of work related variables such as job satisfaction; and that it could be applied, in association with other relevant concepts of psychology such as generational differences, to improve decisions related to recruitment, leadership, and retention. The idea of using adversity quotient as a measure during recruitment is not new (Lugtu, 2010). However, it is an idea that is more relevant now than earlier. On the surface, the study could be seen as having met its objectives, providing an impetus for further research.

The limitations of this study must be noted. One methodological limitation is the method of sampling chosen, that attracts participants from the first-level or second-level network of the initial chosen participants. The researcher's bias in choosing the initial set has a bearing on the results of this study that cannot be estimated. Such a bias may have been eliminated with large samples, but another limitation of this study is a moderate sample size, especially the skewed distribution across generations. Such skew does not permit a generalization of the findings.

The paper offers a simple conceptual model which for the first time introduces the idea of generational differences influencing adversity quotient. Although without great statistical evidence to advance the research hypotheses, this paper is a stepping stone that encourages introduction of more variables, specific and abstract, to develop more nuanced models around the concept of adversity quotient. For example, one of the ideas that is compelling to pursue is if adversity quotient hasn't varied over generations, could it be possible that it was perceived in different ways by different generations; or even more to explore if adversities manifested in different forms over time. Another direction in which the research must be pursued is in clarifying through systematic analysis and synthesis of more grounded concepts that constitute adversity quotient such as loci of control, self-evaluation, and resilience.

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