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**Title: ADVERSITY QUOTIENT AND THE PERFORMANCE LEVEL OF
 SELECTED MIDDLE MANAGERS OF THE DIFFERENT DEPARTMENTS
 OF THE CITY OF MANILA AS REVEALED BY THE 360-DEGREE
 FEEDBACK SYSTEM**

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Background of the Study

In the past few decades, researchers have devoted much of their attention to IQ – Intelligence Quotient and EQ—Emotional Quotient, which are believed to be determinants of success and excellent performance. Now, Paul Stoltz (2000) has introduced a new and fascinating concept—Adversity Quotient (AQ), which tells how well one withstands adversity and his ability to surmount it. For employees and managers, AQ seems to be the missing factor to success.

Today, AQ becomes more and more important as the daily dose of adversity rises. Most people, especially in the Philippines describe ever-greater challenges - a relentless barrage of adversity, not only personal challenges but also challenges in the society and in the workplace.

The basis of organizational capacity lies with the capacity of each employee, of each manager that handles the smallest unit in an organization. How they respond to adversity is the basis of consistently creating outstanding results. In this fast growing world where they are exposed to, each day demands greater speed, capacity and capabilities. And because managers assume multifaceted tasks, it is inevitable for them to encounter hard times along with exposure to different people of different organizational levels in the company. Their performance can be affected by many factors that surround them including people. In turn they also affect several employees above or below the organizational structure or even those in the same level with them. So, it is important to use a multi-source assessment or 360-degree feedback process to determine the level of performance of a middle manager. The 360-degree feedback is intended to provide

employees with as accurate a view of their performance as possible by getting input from all angles. It is said to be useful because it allows managers to identify and compare their strengths and weakness as identified by key constituents from different organizational levels which include supervisors, peers or colleagues, subordinates or direct reports and internal and/or external customers. The premise is that in order to get a complete picture of the performance of an individual, one must gather information from all those having a relevant view of the employee's performance. With this, practitioners and organizational consultants, based on their experiences with clients, firmly believe that multi-rater or 360-degree feedback systems enhance self-knowledge and consequently improve managerial behavior.

With earlier findings on adversity quotient regarding its importance in the workplace especially for managers, and the growing emergence of the 360-degree feedback process in the assessment of job performance level, the researcher realized that it is essential to study these variables. Indeed, a manager with his launching into a new high technology and challenging world requires a high level of conviction in his ability to overcome unyielding challenges while undertaking uncertain and complex innovation projects. This then can be successfully transformed into attractive opportunities.

Statement of the Problem

This study attempted to determine the relationship of adversity quotient and performance level of middle managers in the different departments of Manila as revealed by the 360-degree feedback system. Specifically, the present study answered the following questions:

1. What is the demographic profile of the respondents as to age, gender, civil status, and length of service?
2. What is the adversity quotient of the middle managers as to the following dimensions: Control, Ownership, Reach, and Endurance?
3. What is the performance level of middle managers as revealed by the following: Supervisor, Peers, Subordinate, Self, and the 360-degree feedback system as a whole?

4. Are there significant mean differences among the performance level of the middle managers?
5. Is there a significant relationship between the respondents' demographic profile variables and each of the following: adversity quotient and performance level as revealed by the 360-degree feedback system?
6. Is there a significant correlation between the respondents' adversity quotient and performance level as revealed by the 360-degree feedback system?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. There are no significant mean differences among the performance level of the middle managers.
2. There is no significant relationship between the respondents' profile variables and each of the following: adversity quotient and performance level measured by the 360-degree feedback system
3. There is no significant correlation between the respondents' adversity quotient and performance level as revealed by the 360-degree feedback system.

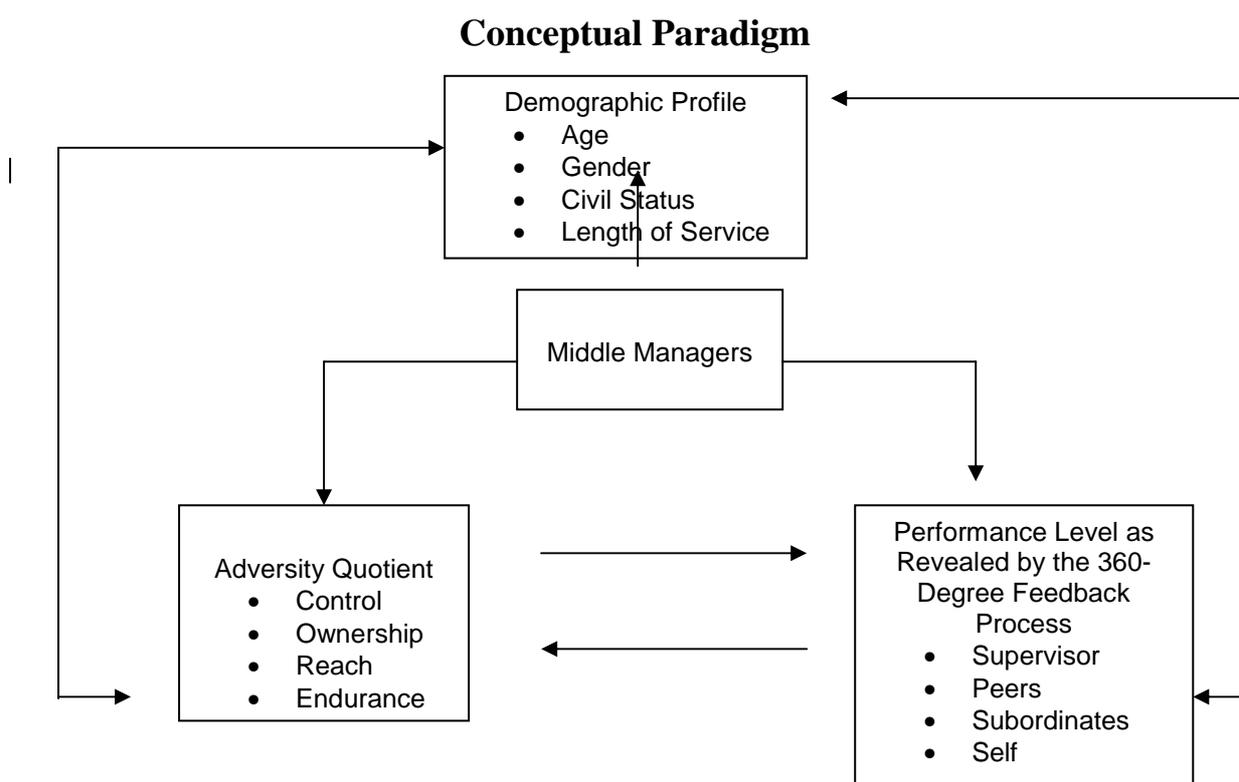


Figure 1. Conceptual Paradigm Showing the Relationship Between the Adversity Quotient And Performance Level of Middle Managers as Reveled by the 360-Degree Feedback Process

The main concern of this study was to explore the relationship of adversity quotient and performance level of middle managers employed in government agencies. It can be gleaned from the conceptual paradigm on the next page that adversity quotient is related to the performance level among middle managers. The Adversity Quotient includes four (4) dimensions namely, Control, Ownership, Reach, and Endurance. While the level of performance of the middle managers was measured using the process known as the 360-degree feedback system. This is represented by the feedback given by people from all angles in the evaluation of the middle manager's performance—superior/s, peers, subordinate/s and the self.

The demographic profile of the respondents such as age, gender, and civil status and length of service served as intervening variables.

Significance of the Study

This study presented a pioneering effort in explaining relationship between adversity quotient and performance level of middle managers in the Philippines. Moreover, the results of the study will be useful to the following:

Managers. Results of the study provided insights into how they handle adversity and consequently improve management of self and people around them. Thereby, increasing their capacity to pursue highest aspirations by responding effectively to any adversity.

Administrators. Ideas gained from this study will give them additional information in understanding an individual's AQ, which will help organizations to hire and retain highly motivated and talented employees. Further it will provide ideas in helping employees develop to their full potential, and thus, create a leadership culture. This can in turn encourage employees to put forth their best efforts and maximize their performance capabilities leading to better overall organizational performance.

Employees. Findings of the study may bring awareness of their AQ levels that can help them organize their working efficiency.

Human Resource Practitioners. In some ways, the findings from this study can be utilized as baseline materials in planning and setting up new programs for employee development especially in dealing with adversities in the workplace. This will provide them additional information for human resource planning. The realization that personal and organizational capacity to handle change and adversity should be increased so that both the employee and the organization will embrace learning and challenge stretching optimal success.

Researchers. The result will be helpful in understanding other issues regarding the relationship of adversity quotient and performance level revealed by 360-degree feedback which can possibly be further studied.

Definition of Terms

The following terms were defined operationally to further clarify the important elements in the conduct of the study.

360-Degree Feedback System. A powerful new assessment tool intended to provide an accurate view of employees' performance by getting input from the following:

- Peer – person on the same organizational level with the middle manager, one who possesses a similar level of status or authority as that of the respondents
- Self - The middle manager himself who also provides feedback.
- Subordinate - Person in the organization under the middle manager's supervision; his work being observed by him.
- Supervisor - One who is one-level higher to the middle manager; he/she oversees his/her works.

Adversity. Any difficulty or hardship that an individual encounters; this may arise from any aspect of one's life—society, individual and workplace.

Adversity Quotient. In this study, it refers to the total score obtained on the Adversity Response Profile; it is how one responds/handles adversity

Adversity Response Profile. A self-rating questionnaire designed to measure an individual's style of responding to adverse situations; it is composed of the following dimensions:

- **Control Score.** A measure of the degree of control a person perceives that he or she has over adverse events; a scale on the Adversity Response Profile and component of the Adversity Quotient.
- **Endurance Score.** A measure of the perception of time over which good and bad events and their consequences will last or endure.
- **Ownership Score.** A measure of the extent to which the person owns, or takes responsibility for, the outcomes of adversity or the extent to which the person holds himself or herself accountable for improving the situation.
- **Reach Score.** A measure of the degree to which the person perceives good and bad events reaching into other areas of life

Middle Manager. The person in charge of an organization or one of its subunits. He is responsible for the work of the people of that unit.

Performance Level. This refers to the recent work appraisal evaluation done in the organization, which may be low, moderate, or high.

Rater. A source person in the 360-degree feedback system who has useful information on how the employee behaves. He/She can be the manager's superior, peer, subordinate, or himself.

METHODOLOGY

This section describes the general methods of research, the research locale, subjects of the study, the research instrument/s employed, procedures, and the different statistical techniques for the interpretation of data.

Research Design

This study employed the descriptive, correlational method of research to determine the relationship of adversity quotient and performance level of middle managers using the 360-degree feedback system.

Further, the design was used to determine whether a relationship exists between the demographic profile variables and adversity quotient and performance level among the selected middle managers of the City of Manila.

Research Locale

The respondents were gathered from the selected departments of the City of Manila on October 2002.

The offices of these departments are situated inside the Manila City Hall – the actual venue for the research.

Samples and Sampling Technique

The researcher employed the convenience sampling to select 7 from the 39 departments of the City of Manila. A total of 102 middle managers from the different departments served as the respondents of this study.

Majority of the respondents are 36 years old and above, female, married, have been in the service to the City of Manila for 10 years and above. These middle managers are assigned into different sections within the department handling five (5) to 10 employees. Figure 2 on the next page illustrates the distribution of respondents in the selected departments of the City of Manila. It is evident that majority of the respondents (42%) is from the City Treasurer's Office and the least number (4%) of respondents come from the Manila Tourism & Cultural Affairs Bureau.

The Distribution of Respondents in the Selected Departments of the City of Manila

<u>Departments</u>	<u>Number of Respondents</u>
City Budget Office	10
City Treasurer's Office	44

Department of Assessment	14
City Personnel Office	5
Manila Health Department	13
City Administrator's Office	12
Manila Tourism & Cultural Affairs Bureau	4

Instrumentation

The researcher utilized two instruments to obtain data for the current study. To gather information from all sides of the middle managers' performance level, the 360-degree feedback system was employed.

The Adversity Response Profile (ARP) was used to measure the adversity quotient of middle managers in the workplace.

The Adversity Response Profile

The Adversity Response Profile (ARP) is a self-rating questionnaire designed to measure an individual's style of responding to adverse situations (Stoltz, 1997). The ARP describes twenty scenarios. Each scenario represents a hypothetical event, which can be answered on a 5-point bipolar scale (i.e., 1- not responsible at all to 5 – completely responsible). There are four dimensions of AQ—Control, Ownership, Reach and Endurance. Although these dimensions may be intercorrelated, they measure very different aspects of AQ. Five scenarios measure each dimension. There are, therefore, four scales of five questions each. The sum of the four scores is the person's Adversity Quotient (AQ).

The CONTROL scale measures the degree of control the person perceives that he or she has over adverse events. OWNERSHIP is the extent to which the person owns, or takes responsibility for, the outcomes of adversity or the extent to which the person holds himself or herself accountable for improving the situation. REACH is the degree to which the person perceives good and bad events reaching into other areas of life. ENDURANCE is the perception of time over which good and bad events and their consequences will last or endure. The following interpretation was used to classify the ARP scores:

<u>Descriptive Interpretation</u>		<u>Score in each dimension</u>	<u>Overall score</u>
Low AQ	-	5 - 11	40 - 119
Average AQ	-	12- 18	120 - 149
High AQ	-	19 -25	150 – 200

The lowest possible score for each dimension is 5 while the highest is 25. On the overall score, the lowest possible score is 40 while the highest is 200. The average score for each dimension is 12-18, and 120-149 for the overall score, which describes the level of adversity quotient of the respondents.

A scale of 5 was used in answering the Adversity Response Profile. The specific item numbers and the description of choices in the scale are as follows:

Item No.	Scale					
	1	2	3	4	5	
1,7,13,15,17	not at all					completely
2,6,11,16,18	not responsible					completely responsible
3,5,9,12,20	affect all aspect of my life					be limited to this
4,8,10,14,19	last forever					quickly pass

It takes approximately 8-12 minutes to complete and score the ARP and graph the CORE Profile. The ARP is highly reliable, with a reliability coefficient of .88 and no adverse impact based on gender or ethnic background. Norms AQ scores are presently available from a diverse sample of 2,414 employees and students in 27 different companies and educational institutions nationwide. The distribution of their AQ scores provides norms with which anyone taking the ARP can compare his or her score.

City Of Manila Performance Evaluation System (COMPES)

In line of the Revised Policies on Performance Evaluation System enunciated under CSC Resolution No. 991792 and CSC No. 13 s 1999, the City Government of Manila adopts the City of Manila Performance Evaluation System (COMPES). The COMPES is a measure of the performance of all first and second level employees of the City of Manila. It aims to measure the actual performance vis-à-vis the following set standards by which officials or employees are

evaluated against to determine individual and organizational productivity.

In order to closely monitor the accomplishments of employee, performance evaluation is done every after six (6) months ending on June 30 and December 30 of every year, with a minimum evaluation period of ninety days or three months.

The overall rating of employees for a given period consists of two (2) parts namely, *Work Performance* and *Behaviorally Anchored Performance* (refer to Appendix F)

Part I – Work Performance

Part I is given a weight of 70% of the overall rating of the employees. This part is concerned with the evaluation of the actual accomplishment vis-à-vis the planned level of performance in terms of quantity, quality and timeliness of work, which is further based on set standards by management.

Each employee is rated on the basis of the levels of performance set below (actual basis of ratings in the City of Manila):

DESCRIPTION	ADJECTIVAL RATING	NUMERICAL RATING
Performance exceeding targets by 30% and above of the planned targets	Outstanding (O)	10
Performance exceeding targets by 15% to 29% of the planned targets.	Very Satisfactory (VS)	8
Performance of 100% to 114% of the planned targets; for accomplishments requiring 100% of the targets such as those pertaining to money or accuracy or those that may no longer be exceeded, the usual rating of 10 for those who met targets or 4 for those who failed or fell short of targets applies	Satisfactory (S)	6
Performance of 51% to 99% of the planned Targets	Unsatisfactory (US)	4
Performance failing to meet the planned targets by 50% or below	Poor (P)	2

Part II - Behaviorally Anchored Performance

This part, which is further divided to II-A (punctuality & attendance and uniform) and II-B (personality factors), is given a weight of 30% of the overall rating of the employees. Behaviorally Anchored performance factors reflect the behavioral dimensions that affect the job performance of the employee.

Activities that reflect the critical attitudes of the employees towards his duties and responsibilities are also included in this part such as the day to day decorum and compliance to certain civil service rules and regulations (daily observance of the employees, such as, attendance & punctuality, as measured by the following: absences, tardiness, non-wearing of uniform, non-wearing of ID's, attendance in flag raising & flag retreat and other official mandatory activities).

Each employee is rated on at least five (5) behaviorally anchored factors applicable to the job requirements. Factors like courtesy, honesty, cooperativeness, human relations and communications skills may be used for those rendering frontline services. Factors like job knowledge, organizational ability, judgment/decision making and other management skills may be used for those performing technical and supervisory positions.

In determining the final equivalent adjectival rating of the employees, the following conversion (based from the COMPES) was used:

9.50 – 10.0	Outstanding (O)
7.51 – 9.49	Very Satisfactory (VS)
4.01 – 7.50	Satisfactory (S)
2.01 – 4.00	Unsatisfactory
2.00 – Below	Poor (P)

In this study, the researcher used only three levels of adjectival rating:

7.51 – 10.0	Outstanding
4.01 – 7.50	Satisfactory
4.00 – below	Poor

The 360-degree Feedback System

The 360-degree feedback system is a form of multi-rater and multi-level feedback. In this feedback system, employees are provided feedback from a number of different sources (also from different levels within the organization; supervisors, peers, and subordinates). It is used whenever an organization wants to measure employee performance or provide employees with a professional development opportunity. In this study, this system was used to determine the performance level of middle managers in order to get a complete picture of his performance.

The feedback was collected from a group of raters, which included the respondent's supervisors, peer, subordinate and the subject himself. The evaluation of these raters was simply averaged to determine the 360-degree performance feedback.

Data Gathering Procedure

The researcher secured permission from the City Personnel Office to conduct the research to different departments of the City of Manila. The City Personnel Chief issued a memorandum to the department heads. Then, the researcher met with contact persons of each department to explain the purpose of the research questionnaire. The schedule of testing was prepared with the assistance of the contact persons designated by the department head.

The researcher kept in mind some key tasks that must be completed in order to generate valid responses and administered them accordingly. All of the selected respondents, that is, middle managers were given a letter of introduction, the ARP instruction and response sheets to complete. They were assured that the results be kept confidential in order to encourage openness in answering the ARP. Objective and specific performance information for each of the participating respondents were gathered in one month. The researcher prepared a master data collection list containing scores of each respondent and the Performance Rating.

Statistical Treatment

The statistical treatment employed in this study was based on the statements of the problem, and hypotheses that generated results.

In presenting the demographic data and profile of the respondents (problem 1), and to identify their level of adversity quotient and performance (problems 1, 2, & 3), frequency and percentage distribution values, were computed using the following formula:

$$P = \frac{\sum f}{N} \times 100$$

Where:

- P = percentage
 f = frequency
 N = total number of respondents

Problem 4 (hypothesis 1) was evaluated using the t-test. The formula is as follows:

$$t = \frac{X_1 - X_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

where:

- X_1 - mean of the 1st group
 X_2 - mean of the 2nd group
 S_1 - standard deviation of the 1st group
 S_2 - standard deviation of the 2nd group
 N_1 - number of cases of the 1st group
 N_2 - number of cases of the 2nd group

While problem 5 was assessed through Chi-Square using the following formula:

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

where:

fo = the actual observed frequency

fe = the expected frequency

Problem 6 was evaluated using the Pearson-Product Moment Correlation of Coefficient to find out if adversity quotient is significantly related to the performance ratings of the respondents. The following formula was used:

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{[\sum X^2 - (\sum X)^2] [\sum Y^2 - (\sum Y)^2]}$$

Where:

r = coefficient of correlation

$\sum X$ = sum of all values of x

$\sum Y$ = sum of all values of y

$\sum XY$ = sum of all the products of x and y

$\sum X^2$ = sum of all squares of x

$\sum Y^2$ = sum of all squares of y

N = total number of cases

The guide for interpreting the coefficient of correlation as presented by Punsalan and Uriarte (2000) were as follows:

+,- 1.00 to +,- .90	Very High correlation; Very Significant relationship
+,- .89 to +,- .60	High Correlation; Significant relationship
+,- .59 to +,- .40	Moderate Correlation; Average or marked relationship
+,- .39 to +,- .20	Low correlation; Small relationship
+,- .19 and below	Negligible/ Almost no relationship

For an objective treatment of data gathered, the software Statistical Program for Social Sciences was employed in all the statements of the problem. The cited computer program was used at the Behavioral Sciences Department of De La Salle University- Dasmaringas in Dasmaringas, Cavite with permission.

RESULTS AND DISCUSSIONS

This chapter presents the gathered data in tabular presentation, analysis and interpretation of findings based on the results of the statistical treatment applied. The tables are presented with textual explanation and graphical illustrations for better understanding.

1. What is the demographic profile of the respondents as to age, gender, civil status, and length of service?

Table 2 shows the demographic profile frequency distribution of middle managers in terms of age, gender, civil status, and length of service. It is evident that the highest number of respondents is within the age bracket 36-43 with a frequency of **35 or 34.31 percent** followed by a frequency of **32 or 31.4 percent** within the age bracket 44-52. While the lowest number of respondents belong to age 61 and above with a number of **8 or 7.8 percent**. This means that most of the respondents are in their early adulthood stage.

There are **65 (or 63.7 percent)** females and **35 (36.3 percent)** male respondents. This figure shows that there is almost a 2 to 1 ratio of female versus male middle managers of the City of Manila.

It could also be gleaned from the table that there is a greater number of married respondents (**78 or 76.5 percent**) than single (**24 or 23.5 percent**). This means that the respondents assume other roles other than being supervisors.

There are **76 (74.5 percent)** middle managers who have been in the service for 10 years and above in the City of Manila. The least frequency is allotted to 1-2 years bracket with a number of **7 or 6.9 percent**. This proves that most of the middle managers are already adjusted in their place of work as they have stayed considerably long years in the City of Manila.

Table 2. Demographic Profile Frequency Table Distribution of the Respondents

Demographic Variables	Frequency	Percentage
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AGE		
28-35	11	10.8
36-43	35	34.3
44-52	32	31.4
53-60	16	15.7
61- above	8	7.8
TOTAL	102	100
GENDER		
Male	37	36.3
Female	65	63.7
TOTAL	102	100
CIVIL STATUS		
Single	24	23.5
Married	78	76.5
TOTAL	102	100
LENGTH OF SERVICE		
1-2	7	6.9
3-5	9	8.8
6-9	10	9.8
10 and above	76	74.5
TOTAL	102	100

2. What is the adversity quotient of the respondents as to control, ownership, reach, and endurance?

Figure 3 on the next page presents the adversity quotient profile of the respondents. It can be noted that most of the respondents' scores on *Control* and *Endurance* dimensions pertain to average level, **61 or 59.8 percent** and **51 or 50 percent** respectively. These mean that it is difficult for most respondents to maintain a sense of control when forced with more serious setbacks or challenges. Similarly, the middle managers may respond to adverse events and their career as somewhat enduring.

While the high level scores fall on the *Ownership*, that is, **53 or 52 percent** and *Reach* dimensions, which is, **61 or 59.80 percent**. Only a small percentage of respondents get low score in all dimensions. These data indicate that the respondents respond to adversity as specific and limited, hence they are more empowered and more likely to feel less overwhelmed. Also,

respondents sense greater ownership regarding the outcome of adversity and they do not allow such adversity to influence other areas of their lives.

3. What is the performance level of middle managers as revealed by the 360-degree feedback system?

The performance ratings of the respondents as revealed by the 360-degree feedback system are shown in Figure 4. It is evident that no respondent received a low rating from any of the raters. Majority of the respondents score high on performance rating given by the raters. A frequency of **72 or 70.6 percent** obtains outstanding performance rating from supervisors and **30 or 29.4 percent** gets a satisfactory rating. Peer raters approve **58 respondents or 56.9 percent** satisfactory performance rating while **44 or 43.1 percent** outstanding performers. On subordinate ratings, **81 respondents or 79.4 percent** gain outstanding level of performance rating and only **21 or 20.6 percent** receives satisfactory performance rating. Self-assessment reveals that **70 (68.6 percent)** respondents obtain outstanding performance rating and **32 (31.4 percent)** have satisfactory performance. These findings reveal that most of the respondents' performance exceeded 15-30% of the planned targets.

4. Are there significant differences among the responses given by the raters of the 360-degree feedback system?

Based on Table 3, there is a significant difference between the ratings given by supervisors and ratings given by peers as shown through the computed t value of -4.094 , which is greater than the critical value of 2.000 set at 0.05 level of significance. Hence, the H_0 that there is no significant difference between supervisor and peer ratings is rejected. This suggests that supervisors and peers do not have the same view of the respondents' performance.

On the contrary, there is no significant difference between supervisor and self ratings as can be gleaned from the *computed value* of $-.300$ which is less than the *critical value* of 2.000 . Therefore, the H_0 that there is no significant difference between supervisor and subordinate ratings is accepted. This finding signifies that supervisors' perception of employee performance

does not differ from that of the self. This result is supported by the study of Williams & Levy (1992) who found that employees gave ratings to themselves similar to that given by their supervisors. However, this finding is contradicted by Mount (1984). He found that supervisors' assessment was different from the managers' self-assessments.

Likewise, the supervisor and subordinate ratings did not reveal a significant difference in terms of the performance of the respondents. This suggests that supervisor and subordinate have the same perception of employees' performance, which can be ascertained by the *computed t value* of 1.347, which is less than the *critical value* of 2.000. Therefore, the Ho that there is no significant difference between the supervisor and subordinate ratings is also accepted. This finding is confirmed by Mount (1984) that evaluations of supervisors and subordinates were similar.

Similarly, subordinate and self ratings display no significant difference in terms of rating the respondents' level of performance. This is because the *computed t value* (-1.829) is less than the *critical value* (2.000) at 0.05 level of significance. The result contradicts that of Mount's (1984) findings where subordinates and self evaluation were different.

These findings have found to be consistent with the previous research conducted by Carless, Mann & Wearing (1998) which showed a low agreement between the 3 sources – supervisor, subordinate, and self) on ratings of manager's leadership and work performance.

Table 3. Summary of Differences Among the Respondents' Performance Ratings Given by the Raters of the 360-Degree Feedback System

RATERS	MEAN	SD	Computed t Value	INTERPRETATION	DECISION
Supervisor – Peer	-.55	1.354	-4.094	S	Reject Ho
Supervisor – Self	-.04	1.319	-.300	NS	Accept Ho
Supervisor –	.18	1.323	1.347	NS	

Subordinate					Accept Ho
Peer – Subordinate	.73	1.153	6.354	S	Reject Ho
Peer – Self	.51	1.370	3.759	S	Reject Ho
Subordinate – Self	-.22	1.191	-1.829	NS	Accept Ho

Critical Value – 2.000
df – 101

Level of Significance = 0.05

Legend: S = Significant; NS = Not significant

On the other hand, peer and subordinate as well as peer and self have significant differences in rating the respondents. The *computed t value* for peer-subordinate ratings is 6.354 which is greater than 2.000. While, for peer-self ratings, the *computed value* is 3.759 is greater than the *critical value* of 2.000. Hence, the Ho that there are no significant differences between peer and subordinate; and peer and self ratings, respectively are rejected.

These findings establish a strong argument that peer as well as subordinate assessments appears to be an important comparison with other sources. This is strongly supported by (Edwards & Ewen, 1996) who found that the lowest-performing group includes employees with the highest self-assessment; and that supervisor rating has also its flaws because supervisors have no validating evidence for non-performance other than their own judgment.

5. Is there a significant relationship between the respondents' demographic variables and each of the following: a) adversity quotient b) performance as revealed by the 360-degree feedback system?

Table 4. Summary Table on the Relationship Between Adversity Quotient and Demographic Variables of the Respondents, = 0.05

Demographic Variables	Computed X ² Value	Df	Critical X ² Value	Interpretation	Decision
Age	7.689	8	15.507	NS	Accept Ho
Gender	.205	2	5.991	NS	Accept Ho

Civil Status	.826	2	5.991	NS	Accept Ho
Length of Service	10.747	6	12.592	NS	Accept Ho

Table 4 reveals the relationship between AQ and demographic variables such as age, gender, civil status and length of service. It can be noted that the said variables are not significantly related to the Adversity Quotient of the respondents. It is ascertained by the *computed X^2 value* of **7.689**, which is less than the *critical value* of **15.507** for the variable age tested at 0.05 level of significance and with 8 degree of freedom. Thus, the Ho that there is no significant relationship between age and adversity quotient is accepted. This means that age is not a determinant of adversity quotient.

The table further shows that there is no significant relationship between gender and adversity quotient. This is supported by the *computed X^2 value* of **0.205**, which is less than the *critical value* of **5.991**(df = 2) at 0.05 level of significance.

Moreover, civil status and length of service variables are not also determinants of adversity quotient. The *computed X^2 value* for civil status variable is **.826** (df = 2) and the *critical value* is **5.991**. For length of service variable, the *computed X^2 value* is **10.747** and the *critical value* is **12.592**. Thus, the Ho that there is no significant relationship between civil status variable and adversity quotient as well as length of service and adversity quotient is accepted.

This supports the idea that people with high AQ never allow age, gender, race, physical or mental disability, or any other obstacle to get in their way.

Table 5. Summary Table on the Relationship Between Demographic Variables and Performance Ratings of the Respondents As Revealed by the 360-Degree Feedback System

Demographic Variables	Computed X^2 Value	Df	Critical X^2 Value	Interpretation	Decision
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Age	5.114	4	9.488	NS	Accept Ho
Gender	.114	1	3.841	NS	Accept Ho
Civil status	.128	1	3.841	NS	Accept Ho
Length of Service	2.079	3	7.815	NS	Accept Ho

The data shown on table 5 exhibits that there is no significant relationship between performance ratings revealed by the 360-degree feedback system and the demographic variables such as age, gender, civil status and length of service. Age variable as dictated by the computed X^2 value of 5.114 is less than the tabular X^2 value of 9.488. In terms of gender, it manifests that the computed X^2 value of .114 is less than the tabular X^2 value of 3.841 while civil status variable illustrates the computed X^2 value of .128 that is less than the tabular X^2 value of 3.841. Moreover, analyzing performance level revealed by the 360-degree feedback system and length of service would lead to the computed X^2 value of 2.079, which is less than the tabular X^2 value of 7.815.

These data imply that performance rating does not increase with age and with the number of years in service nor is determined by the employees' gender and civil status.

On age effect on performance, however, the finding of this study is contradicted by the findings of Edwards & Ewen (1996) found that age and performance level were positively correlated. This means performance scores increase slightly with age.

6. Is there a significant correlation between the respondents' adversity quotient and performance level as revealed by the 360-degree feedback system?

Table 6. Relationship Between AQ and Performance Level of the Respondents As Revealed by the 360-Degree Feedback System

360 * PERFORMANCE RATING	ADVERSITY QUOTIENT		
	High (150-200)	Average (120-149)	Low (40-119)
Outstanding	26	39	6
Satisfactory	19	8	4
Poor	0	0	0
TOTAL = 102			
r value = .612 Level of significance = 0.05 Interpretation: High Correlation; Significant Relationship			

As indicated on the table, there is a high correlation; significant relationship ($r=.612$) between adversity quotient and performance level of the respondents as revealed by the 360-degree feedback system. This result divulges a fairly strong correlation of adversity quotient and performance rating within the City of Manila.

Several studies on AQ and performance initiated by PEAK learning, Inc (2000) revealed that AQ correlated positively with and was a predictor of, performance and promotion. These findings further signify that higher AQ individuals outperform and will be more likely to be promoted than their lower AQ counterparts. Stoltz (2000) believes that the higher one's AQ, the more likely one will be a top performer and sustain high performance while the lower one's AQ, the more likely one will not tap his full potential because people with high AQ embrace challenges, and they live with a sense of urgency.

CONCLUSIONS AND RECOMMENDATIONS

Summary of Findings

The significant findings of the study were as follows:

1. Profile of the Middle Managers

Majority of the respondents are within the age bracket **36-43 (34.31%)**. There is a greater number of female (**63.7%**) than male respondents; mostly married (**76.5%**) with the highest frequency of length of service of 10 years and above (**74.5%**) in the City of Manila.

2. Adversity Quotient of the Middle Managers

Most of the respondents have average level (**46.1%**) and high level (**44.1%**) of adversity quotient, which proves that they have the potential to be top performers. Further, most of the respondents obtain average level (**59.8%**) on *Control* dimension, which suggests that respondents have average control over events that affect their life circumstances.

While most of the middle managers achieve high score on *Ownership* dimension (**52%**), which means that they sense greater ownership regarding the outcome of adversity.

On the other hand, a greater number of respondents (**59.8%**) have high score on *Reach* dimension. This result indicates that respondents do not allow any adversity to influence other areas of their lives.

On *Endurance* dimension, the highest frequency (**50%**) of respondents falls into average level. This suggests that respondents more likely see adversities as temporary—rather than enduring—set backs.

3. Performance Ratings of the Middle Managers As Revealed by the 360-Degree Feedback System.

No respondent received a low rating from any of the raters. Majority of the respondents scored high on performance rating given by all raters. Based on the 360-degree feedback system, a great number of middle managers obtain high (**69.6%**) performance rating that helps them perform as assets of the departments of the City of Manila. Supervisor (**70.6%**), subordinate (**79.4%**) and Self (**68.6%**) ratings reveal high performance level of the respondents. On the other hand, majority of peer raters evaluation of the respondents' performance fall on the average level. These findings support the idea that supervisor, as well as subordinate ratings

tends to be inflated; and that many people tend to have a higher opinion of themselves than do others.

4. Mean Differences of the Performance Level of the Middle Managers.

Among the raters—peer- subordinate (*computed t value = 6.354*) and peer-self (*computed t value = 3.759*) and peer-supervisor (*computed t value = -4.094*) have found to have significant differences in rating the middle managers' level of performance. These findings establish a strong argument that peer as well as subordinate assessments appears to be an important comparison with other sources.

5. Relationship of the demographic profile variables and each of the following: adversity quotient and performance ratings of the middle managers.

The demographic variables such as age, gender, civil status, and length of service have been found to have no significant relationship with adversity quotient and performance rating of middle managers. These results prove that age, gender, civil status, and length of service do not affect one's level of adversity quotient and performance.

6. Correlation Between Adversity Quotient and Performance Ratings

Adversity quotient registered a high correlation ($r = .612$), significant relationship with performance rating as revealed by the 360-degree feedback system, which means that adversity quotient affects performance among middle managers of the City of Manila.

Conclusions

Based from the findings of the study presented, the following conclusions were drawn:

1. Among the raters of the 360-degree feedback system only between peer and supervisor, peer and subordinate, and peer and self have been found to have significant differences in rating the middle managers' level of performance.
2. There is no significant relationship between the demographic variables such as age, gender, civil status, and length of service and adversity quotient similarly with performance ratings as revealed by the 360-degree feedback system.

3. There is a significant relationship between adversity quotient and performance ratings as revealed by the 360-degree feedback system.

Recommendations

In the light of the foregoing conclusions, the following recommendations are hereby forwarded:

1. The present administration of the City of Manila may look into the possibility of integrating adversity quotient in their existing job specifications or hiring qualifications in recruiting or promoting middle managers to improve organizational performance.
2. There is a need to sustain and possibly enhance the present level of adversity quotient of the middle managers of the City of Manila since this significantly relate to their performance at work.
3. The Human Resources practitioners may include the theory and practice of adversity quotient in employees' training and development to instill individual adversity awareness, thereby, making them conscious to deal with adversity inherent in their jobs.
4. Peer assessment has been found to be significant. A teambuilding or a seminar-workshop must be designed to enhance harmonious working relationship among people of the same level in the organizational structure thereby, avoiding professional jealousy.
5. Government agencies as well as other organizations may design a 360-degree performance appraisal system appropriate to their culture to provide quality of evaluation results.
6. The results of the study may be shared with organizations, particularly to government agencies for possible further or follow-up studies.