



# Psychological Resilience of Employees in Adversity Quotient: Malaysian Perspective in Facing Challenges

Lee M.F.<sup>1\*</sup>

<sup>1</sup>Faculty of Technical and Vocational Education,  
 Universiti Tun Hussein Onn Malaysia, MALAYSIA

\*Corresponding Author

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**Abstract:** Psychological resilience is the ability to manage psychologically or emotionally with a catastrophe or to swiftly recover to pre-crisis position. Adversity is one of the most important abilities for psychological resilience. Workers in the twenty-first century must be able to deal with adversity in a challenging work environment, especially during a pandemic. The purpose of this study was to determine the level of adversity quotient among Malaysian employees during the pandemic period. Different employees' ability adversity quotients have also been compared in terms of gender, race, and age. This study's design is a cross-sectional survey with 585 respondents from all around Malaysia selected using a convenient sampling technique. A modified version of Dr. Paul G. Stoltz's Adversity Response Profile was employed as instrument in this study. The data was then analysed with the sum, median, mean, standard deviation, independent-sample t-test, and logistic regression. The findings of the study show that the majority of employees have a high adversity quotient score. In terms of gender, men employees tend to score higher than female employees. Employees aged 50 and over excel those aged 26 and below. However, the adversity quotient score for employees of different races is not significantly different. Employers should eventually take serious concern by implementing the appropriate intervention programme or policy aimed at potential employees in order to overcome their shortcoming in the adversity quotient and, more importantly, to enhance the employee's ability to face challenges in order to drive the company's mission and vision.

**Keywords:** Psychological resilience, employees, adversity quotient

## 1. Introduction

Psychological resilience is the ability to manage psychological or emotional with a catastrophe or to swiftly recover to the pre-crisis position. Understanding psychological resilience will help to create and promote evidence-based programs to improve psychological resilience (De Terte & Stephens, 2014). Resilience has also been studied in the context of failure and disappointments in the workplace. As one of the basic conceptions of good organizational behavior, researchers', and practitioners' interest in psychological resilience in organizations has grown significantly (Linnenluecke, 2017; Hartmann, et al., 2019; van der Vegt, et al., 2015; King, 2016). Nonetheless, psychological resilience in the Malaysian context is a little-studied and under-researched topic. Adversity is one of the most important abilities for psychological resilience. Workers in the twenty-first century must be able to deal with adversity in a challenging work environment, especially during a pandemic.

Employees that are resilient are abler to adapt, cope, gain resources, and respond favourably to workplace challenges. Based on a rapid evidence assessment (REA), Gifford and Young (2021) discovered numerous essential elements that preserve or strengthen resilience. According to Gifford and Young (2021), those employees who have strong resilient tend to have the following characteristics: (1) individuals' psychological states and traits, including self-

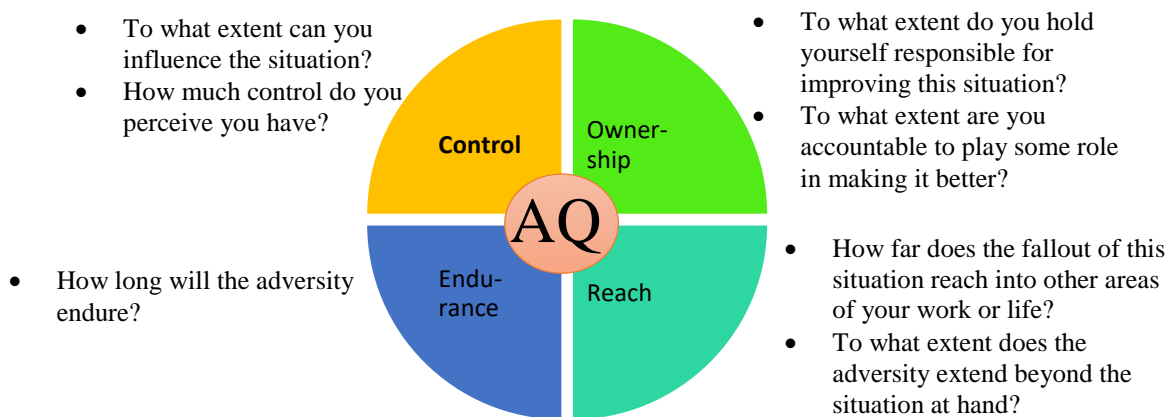
efficacy or confidence, positive affect or emotions, and our sense of coherence; (2) our relationships, including supportive co-workers and managers and a high-quality leader-member exchange; (3) in addition, learning and development interventions can enhance employee resilience if they are designed and delivered in the right way. In addition, understanding resilience as a semi-permanent psychological feature and partially a changing psychological state is crucial. Some people are more resilient by nature than others, but the onus should not be placed only on employees to "buck up" and "be" robust. Each member of an organization has a significant impact on how resilient an individual is (Gifford and Young, 2021).

Although there are many definitions of psychological resilience, the majority of them focus on only two concepts: adversity and positive adaptation (Fletcher & Sarkar, 2013). Therefore, this paper will only focus on the discussion related to adversity. Stoltz initially defined an adversity quotient as an individual's capacity to overcome life's difficulties, hurdles, or issues to attain a goal (Kasan, 2021). In accordance with this, Hidayat and Sari (2019) discovered that the adversity quotient can have a positive impact on boosting the quality of critical thinking in issue-solving. Furthermore, Stoltz (2000) in Kasan (2021) stated that people with a high adversity quotient can strive to complete every work they are assigned even when presented with varied challenges; on the other hand, those without an adversity quotient will cease completing projects when faced with problems.

In early 2020, Malaysia was devastated by the Pandemic COVID-19 outbreak. Coronavirus (Covid-19) is an infectious illness caused by a recently identified coronavirus that causes a variety of symptoms in people. As a result, the World Health Organization (WHO) has classified the COVID-19 pandemic as a worldwide public health emergency. This condition is a crisis that impacts people's lives and economies all around the world. As a result, Malaysia has enacted the Movement Control Order (PKP) in order to break the infection cycle. There are six (6) steps involved in the Movement Control Order (PKP) implementation period. As a result, the COVID-19 epidemic has had a significant influence on Malaysia's political, social, economic, health, and educational institutions. In short, employees' psychological resilience especially in adversity plays an important role to ensure the survival of a company. Thus, this study is to determine the level of adversity quotient among Malaysian employees during the pandemic period. Different employees' ability adversity quotients have also been compared in terms of gender, race, and age as Malaysia is a multicultural country with many cultures.

### 1.1 Adversity Quotient and C.O.R.E. Dimension

The adversity quotient (AQ) is a person's capacity to deal with life's challenges, issues, and hurdles (. A person with a level of difficulty, according to Stoltz, will be able to tackle barriers efficiently and capitalise on possibilities. Adversity has four dimensions: control (C), ownership (O), reach (R), and endurance (E) (Stoltz, 1997) as illustrated in Figure 1; it may be shown in a person's capacity to remain calm in the face of adversity.



## 2. Methodology

This study used a cross-sectional survey as the research design and was conducted in Malaysia from March 2022 to June 2022. The samples were collected from 585 employees from 14 states, including the Federal Territory, using a convenient sampling technique. Among those who responded were managers, professionals, armed forces, technicians, clerical support workers, service & sales workers, craft & related trades workers, elementary occupation, plant & machine operators & assemblers, and skilled agricultural, forestry, livestock, and fisher workers. Their occupation was determined by consulting the Malaysian Employers Federation (MEF, 2022). Among those who responded were managers, professionals, armed forces, technicians, clerical support workers, service & sales workers, craft & related trades workers, elementary occupation, plant & machine operators & assemblers, and skilled agricultural, forestry, livestock, and fisher

workers. Their occupation was determined by referring to the Malaysian Employers Federation (MEF, 2022). The instrument used in this study was a modified version of Dr Paul G. Stoltz's Adversity Response Profile. The instrument was designed as a set of questionnaires to be completed through Google Forms to assess the respondents' adversity quotient. The Adversity Response Profile is a well-known tool for determining a person's Adversity Quotient. Control, ownership, reach, and endurance are the four core dimensions of the adversity quotient response. By adding the scores for the following items, the sum score for each adversity quotient dimension is calculated:

- Control = 1, 7, 13, 15, 17
- Ownership = 2, 6, 11, 16, 18
- Reach = 3, 5, 9, 12, 20
- Endurance = 4, 8, 10, 14, 19

The collected data was then analysed using sum, median, mean, and standard deviation to calculate the adversity quotient among employees based on gender, race, and age. Meanwhile, an independent sample t-test was used to determine whether there was a significant difference in Adversity Quotient scores between male and female employees. A binary logistic regression was also performed to model the relationship between the employee's adversity quotient score (high score = >75, low score = 75) and the predictor factors (gender, race, and age).

### 3. Results and Discussion

#### 3.1 Comparison of Adversity Quotient Between a Male and Female Employees

An independent sample t-test was used to analyse the significant difference in CORE dimensions between male and female employees. The result of the t-test is shown in Table 1. Only reach ( $t(491.836) = 2.348, p.05$ ) and endurance ( $t(583) = 2.497, p.05$ ) differ significantly between male and female employees, according to the findings. Table 2 shows the comparison of the adversity quotient between male and female employees using the mean score and standard deviation. For male employees, their Adversity Quotient dimension score in descending order is ownership ( $M = 19.94, SD = 3.08$ ) > control ( $M = 19.48, SD = 3.09$ ) > reach ( $M = 19.36, SD = 3.44$ ) > endurance ( $M = 18.95, SD = 3.49$ ). Similarly, female employees tend to have the same pattern of Adversity Quotient dimension score as male employees. Their score in descending order is ownership ( $M = 19.53, SD = 3.26$ ) > control ( $M = 19.05, SD = 3.34$ ) > reach ( $M = 18.64, SD = 3.85$ ) > endurance ( $M = 18.21, SD = 3.67$ ). In general, male employees tend to have a higher score for the CORE dimensions than female employees.

**Table 1 - Independent sample t-test results for the comparison of Adversity Quotient between male and female employee**

	T	df	Sig. (2-tailed)
Control	1.610	583	.108
Ownership	1.535	583	.125
Reach	2.348	491.836	.019
Endurance	2.497	583	.013

**Table 2 - Comparison of Adversity Quotient between male and female employee**

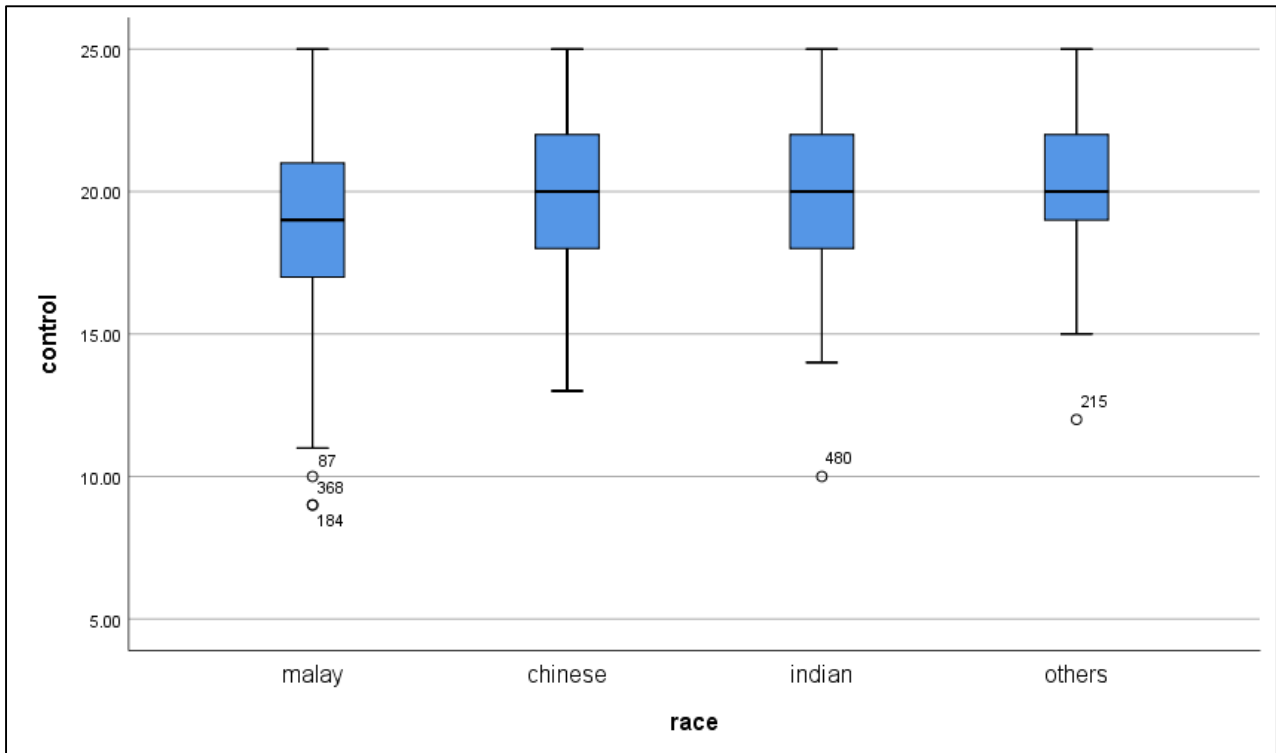
	Gender	Mean	Std. Deviation
Control	Male	19.4838	3.08876
	Female	19.0528	3.33706
Ownership	Male	19.9381	3.07678
	Female	19.5325	3.25717
Reach	Male	19.3628	3.44284
	Female	18.6382	3.84962
Endurance	Male	18.9528	3.48761
	Female	18.2073	3.66808

When it comes to AQ, gender is an essential aspect to consider. According to previous studies, males and females have different AQ levels. For example, research by Yeo and Neal (2019), found that females tend to have higher AQ ratings than males. This could be because of how men and women are socialised to handle hardship. However, this finding conflicts with earlier research that consistently showed that males tend to score higher on AQ than females (Ali et al., 2017). One explanation could be that men are socialised to be more competitive and independent, which could

lead to higher AQ ratings (Wong & Wong, 2006). However, some academics have hypothesised that biases in AQ assessment may be to blame for gender differences in AQ. For instance, some AQ measures may favourably evaluate traits associated with men, such as self-reliance and competitiveness, while ignoring traits associated with women, such as empathy and social support (Zimmerman et al., 2013). Eventually, gender is a demographic factor that has been researched in correlation to AQ. According to some studies, females tend to have higher levels of AQ than males (Zhang et al., 2020), whereas other studies have identified no substantial gender differences in AQ (Qin et al., 2019; Stoltzfus & Nisbett, 2020). Gender differences in AQ could be affected by societal norms and gender roles.

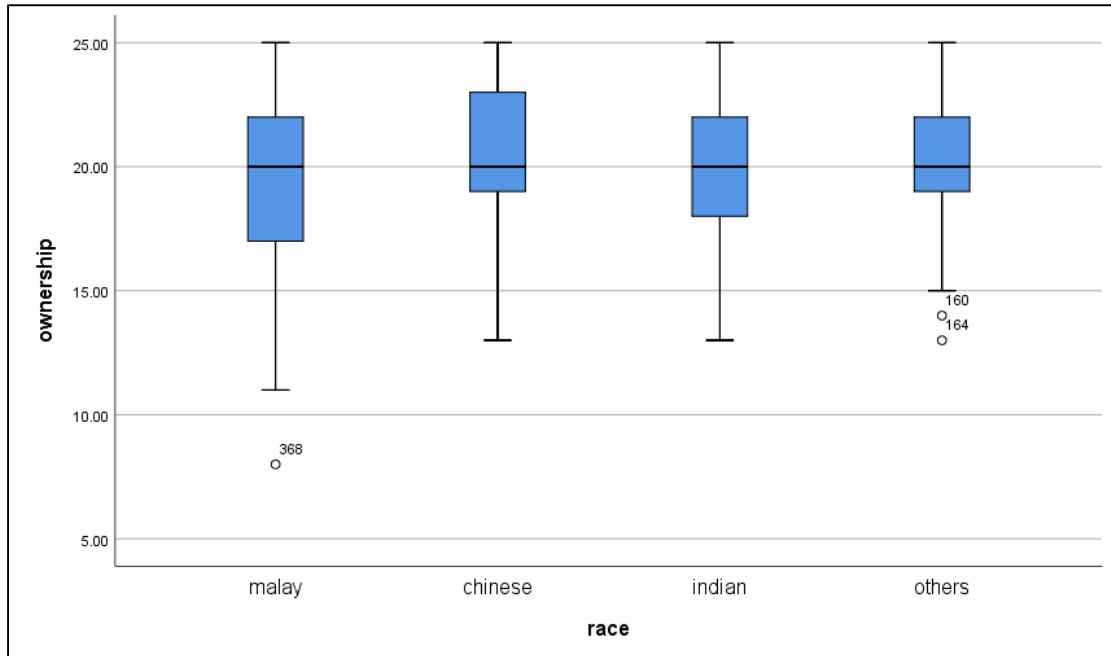
### 3.2 Comparison of Adversity Quotient Among Employees with Different Race

Figure 1 illustrates a box plot of the adversity quotient's control dimension among employees of various races. The results show that, in general, all races (Malay, Chinese, Indian, and others) have a similarly high score, but Malay ( $M = 19.00$ ,  $SD = 3.25$ ) have a wider range of the control score than the Chinese ( $M = 19.84$ ,  $SD = 2.86$ ), Indian ( $M = 19.78$ ,  $SD = 3.40$ ) and others ( $M = 20.18$ ,  $SD = 2.97$ ). About five cases are outliers, with the lowest score among the Malay, Indian, and other groups. Chinese, Indian, and other groups tend to have the same control score, with a median of 20; Malay has a median of 19.



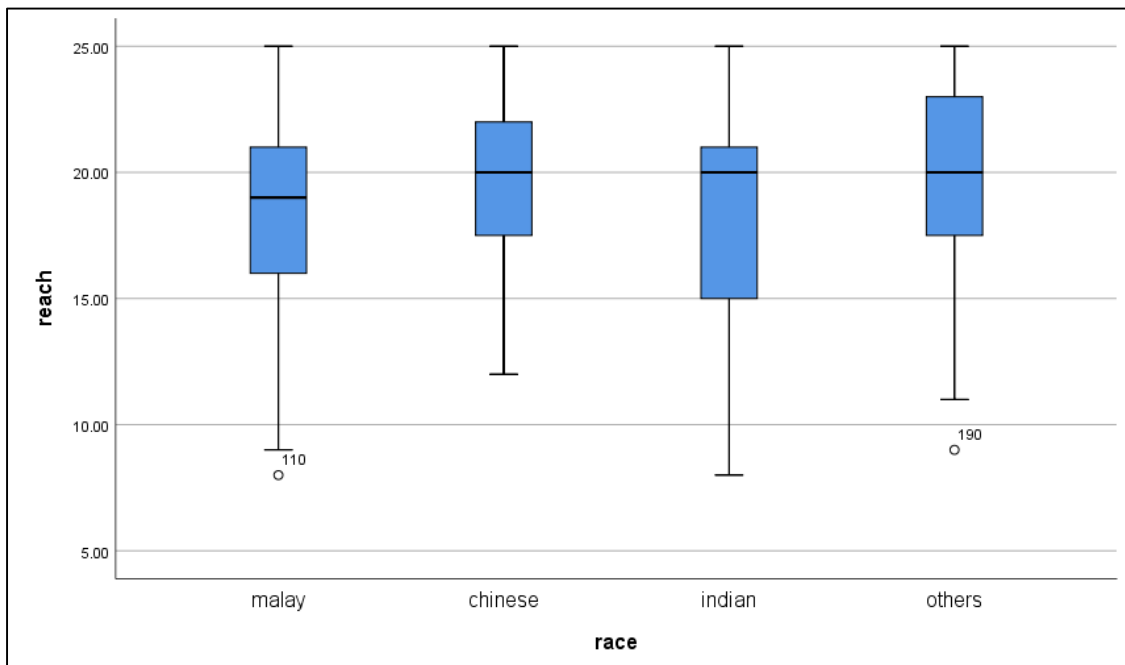
**Fig. 1 - Box-plot of the control dimension with different race**

Figure 2, on the other hand, demonstrates the level of ownership among employees of various races. All of the races achieved the same median ownership score of 20.00. Malay ( $M = 19.49$ ,  $SD = 3.25$ ) employees, like the control score, have the highest range when compared to Chinese ( $M = 20.38$ ,  $SD = 2.77$ ), Indian ( $M = 20.31$ ,  $SD = 3.15$ ) and other ( $M = 20.31$ ,  $SD = 2.87$ ). Only Malay and other race employees have outliers, with a total of three, and they all have the lowest score in the group.



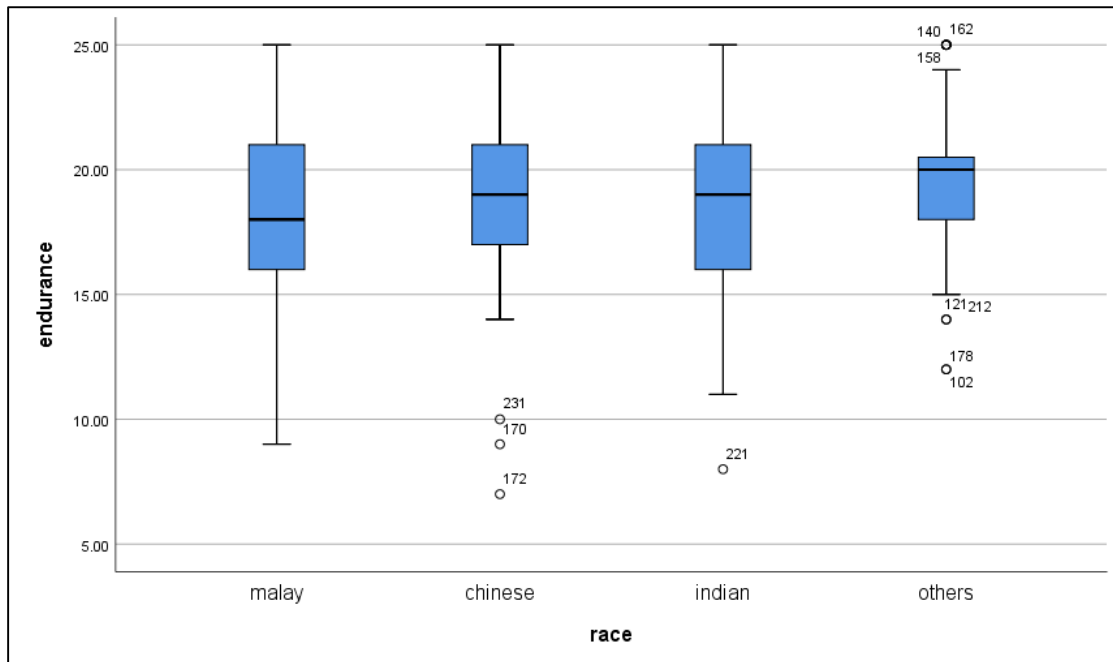
**Fig. 2 - Box-plot of the ownership dimension with different race**

Meanwhile, Figure 3 represents the distribution of the reach dimension score among employees of various races. According to the box plot, Malay ( $M = 18.86$ ,  $SD = 3.59$ ) employees have a lower median score in the reach dimension, which is 19.00, than the Chinese ( $M = 19.71$ ,  $SD = 3.09$ ), Indian ( $M = 18.49$ ,  $SD = 4.42$ ) and others ( $M = 19.85$ ,  $SD = 3.93$ ), who have a median of 20.00.



**Fig. 3 - Box-plot of the reach dimension with different race**

Figure 4 shows different patterns of endurance dimension scores across races compared to the other three dimensions of the adversity quotient. The descending score for the endurance dimension is Others (median = 20.00) > Chinese (median = 19.00) and Indians (median = 19.00) > Malay (median = 18.00).



**Fig. 4 - Box-plot of the endurance dimension with different race**

In connection to AQ, race and ethnicity have also been investigated. The research on AQ and ethnicity has yielded conflicting findings. Some studies have found no major variations in AQ scores between racial groups (Cohen, 2012), while others have discovered substantial differences (Jackson et al., 2006). One reason for the contradictory findings is that AQ is affected by cultural variables. Cultures that stress unity, for example, may put a larger focus on social support and collaboration, which may result in higher AQ ratings. Individualistic societies, on the other hand, may put a higher focus on self-reliance, which may result in lower AQ scores (Chang & Sanna, 2001). According to research conducted by Lee et al. (2018), Asian Americans had greater levels of AQ than White Americans, while African Americans had lower levels of AQ. This research, however, only included three racial groups and did not take into consideration other variables that may affect AQ, such as socioeconomic position and cultural background. More research is required to completely comprehend the connection between race and AQ.

### 3.3 Comparison of Adversity Quotient Among Employees with Different Ages

Figure 5 shows the pattern for the CORE dimension according to employees of different ages using a radar chart. The age group 41 - 45 had the highest control dimension score ( $M = 20.27$ ,  $SD = 2.75$ ), while the age group 21-25 had the lowest ( $M = 18.62$ ,  $SD = 3.44$ ). In terms of ownership, the age group 41-45 had the highest score ( $M = 20.62$ ,  $SD = 2.93$ ), while the young group aged 21-25 had the lowest score ( $M = 19.33$ ,  $SD = 3.57$ ). However, for the reach dimension, those over the age of 55 had the highest score ( $M = 20.25$ ,  $SD = 4.03$ ), while those under the age of 25 had the lowest score ( $M = 18.55$ ,  $SD = 3.83$ ). Without surprise, the young group aged 21-25 had the lowest endurance score ( $M = 17.85$ ,  $SD = 4.01$ ), while the age group over 55 years old remained champion with the highest score ( $M = 20.00$ ,  $SD = 4.24$ ).

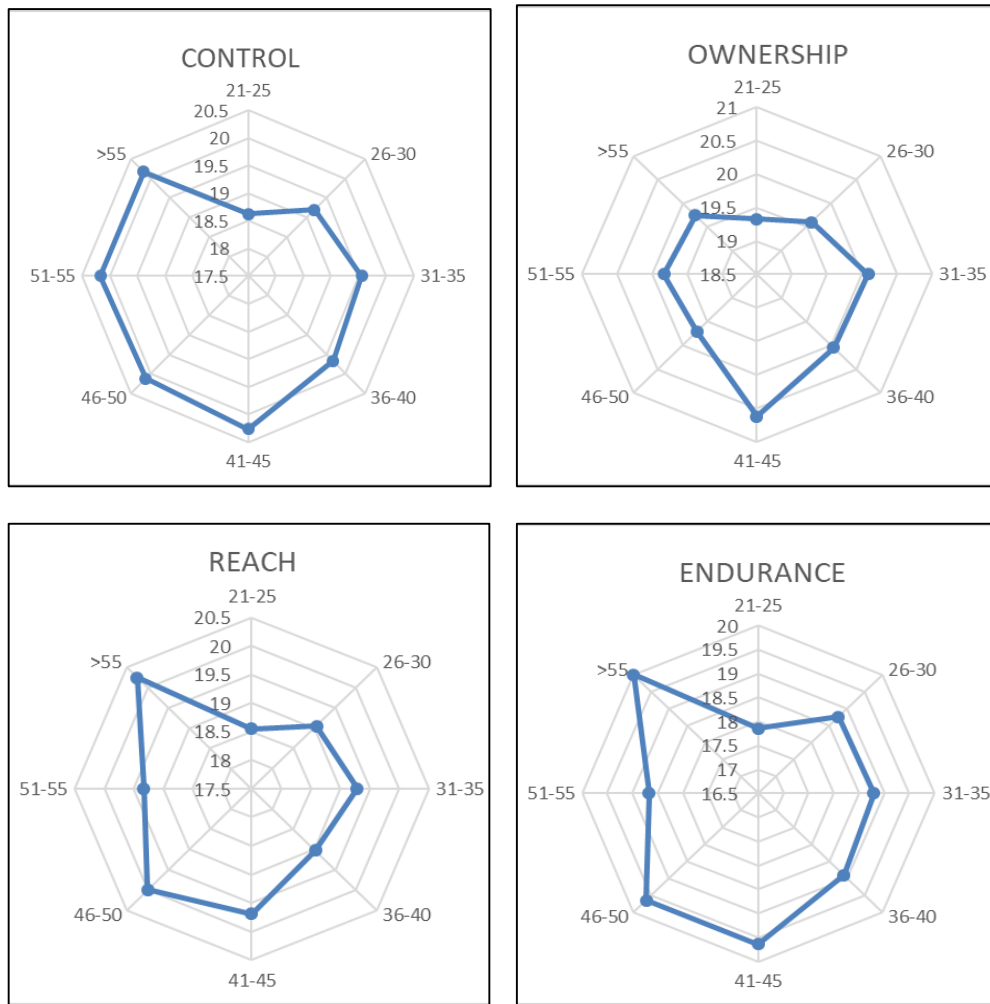


Fig. 5 - Radar chart of CORE dimension according to employees of different ages

Age is one element that can affect AQ. Some investigations have discovered that older people have greater AQ ratings than younger people. For example, Hui, Chan, and Yu (2015) discovered that resilience, a crucial component of AQ, was favourably correlated with age in their research. According to research, age is favourably related to AQ ratings. This implies that as individuals get older, their AQ scores rise, suggesting that they are better able to deal with adversity. One potential reason is that older people have more life experience and have had more chances to create coping techniques for dealing with adversity (Wong & Wong, 2006). Another element that may lead to age variations in AQ is generational differences. For example, newer people may be less resilient because they have grown up in a society that values immediate satisfaction over delayed gratification. This can contribute to a lack of resilience when confronted with difficulties that necessitate perseverance and long-term effort (MacLeod et al., 2016).

### 3.4 Relationship Model Between Adversity Quotient Score with Three Predictor Factors Among Employees

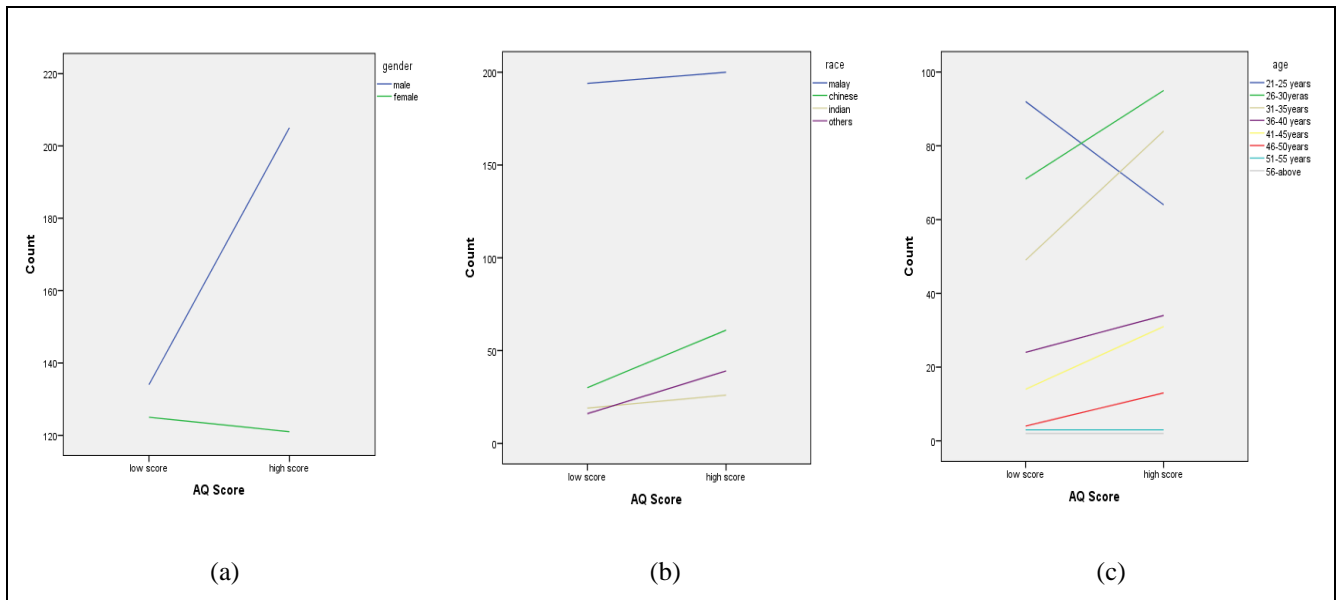
A binary logistic regression was employed to model the relationship between the employee's adversity quotient score (high score = >75, low score = 75) and the predictor factors (gender, race, and age). The findings of the logistic regression analysis using the forward stepwise method demonstrate that all three predictor factors that predict the dependent variable's adversity quotient score are significant. Findings show that the combination of the three predictor variables, namely gender, race, and age, is significantly ( $\chi^2 = 39.44, p < .005$ ) predicts as much as 8.7% of the variance (Nagelkerke  $R^2$  value = .087) in the dependent variable adversity quotient score [B: race (2) = .014; age (1) = -.028; age (7) = .154]. Therefore, the logistic regression model obtained is:

$$\text{Adversity Quotient} = 014 [\text{race (2)}] - .028 [\text{age (1)}] + .154 [\text{age (7)}] - .007$$

However, Nagelkerke's R2 value is.087, showing that this model is ineffective for predicting adversity quotient scores. Although the three explanatory factors contribute statistically significantly to the prediction of the adversity quotient, the effect size is too small.

Figure 7(a) depicts the curvature of the line graph, which clearly reveals that male employees have a higher AQ score than female employees. As seen in Figure 7(b), all races have a high-frequency score of AQ. Employees aged 21-25 years exhibit an inverse interaction when compared to other age groups, as demonstrated in Figure 7(c). Most of the age group is between the ages of 21 and 25, and their AQ score is lower when compared to other age groups.

In conclusion, there are variations in AQ ratings across age categories, races, and genders. While age is favourably linked with AQ, differences in AQ by race and gender are more complicated and may be affected by cultural and social variables. When interpreting AQ scores and devising strategies to increase resilience, these variables must be considered.



**Fig. 6 - Line graph of employee adversity quotient score from the aspect of gender, race and age**

#### 4. Conclusion

The purpose of this study was to measure the psychological resilience of employees' adversity quotients, particularly when faced with pandemics that occurred between the end of 2019 and the end of 2021. According to the study findings, most employees had high scores for each key feature of the adversity quotient, resulting in a mean score of more than 18 out of 25. In terms of gender, male employees tend to score higher in the CORE factor than female employees. Furthermore, the adversity quotient score from the race component stays consistent among Malaysia's many races, including Malay, Chinese, Indian, and others. Senior workers (aged 50 and above) clearly surpass junior employees (aged 25 and under) in the CORE dimension score. Eventually, employers should take serious concern by implementing the appropriate intervention programme or policy aimed at potential employees to overcome their shortcomings in the CORE dimension and, more importantly, to enhance the employee's ability to face challenges to drive the company's mission and vision. However, due to the limits of the study data, the findings did not present a scenario of an employee's adversity quotient in a more precise setting. The findings, however, did not present a picture of an employee's adversity quotient in a more precise setting due to the limits of the study data. The extent to which an employee's adversity quotient differs depending on their occupation and position in the company are both interesting issues that urge further investigation.

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