ACADEMIC RESILIENCE AND SELF-ESTEEM AS DETERMINANT OF STUDENTS’ ACADEMIC PERFORMANCE IN ZAMFARA STATE

Chioma Ifeoma Ojeleye*, Oluchi Nnadozie Adegbile, Taibat Apanpa

Department of Psychology, Guidance and Counseling, Federal College of Education (Technical) Gusau, Zamfara State, Nigeria
e-mail: miriamcalvin@gmail.com
(Corresponding Author indicated by an asterisk *)

ABSTRACT

The academic performance of students in the nations tertiary institutions has been on the decline. The study explored self-esteem and academic resilience as determinants of students’ academic performance in Federal Polytechnic Kaura-Namoda, Zamfara state. The study employed survey and cross-sectional research design. The study employed purposive sampling technique as 800 pieces of questionnaire were administered students in the institution out of which 682 were valid and used for the analyses. The study used statistical package for social sciences (SPSS) to run the preliminary analyses such as detection of missing value, outliers, multicollinearity and test of normality. Structural equation model (SmartPLS) was used to run the measurement and structural models. The findings revealed that self-esteem and academic resilience have positive and significant effect on students’ academic performance in Federal Polytechnic Kaura-Namoda, Gusau, Zamfara state. The study recommended that educational stakeholders (the government, school management, lecturers and school peers) should encourage students to bounce-back from seemingly difficult situation to stimulate their performance.

Keywords: Self-esteem; Resilience; Academic performance; Self-determination theory

INTRODUCTION

Academic performance of students at all school levels is not only an indicator of school efficacy, but it is also a key predictor of the future of youths in particular and the nation in general (Olanrewaju & Oyadeyi, 2014). Learning is the means by which knowledge is transmitted (Effiom & Bassey, 2018). As a consequence, learning outcomes have become a phenomenon of universal interest, which explains why researchers have been working hard to identify characteristics that impede effective academic achievement (Chelvam & Ismail, 2020). Scholars all around the world have given this phenomenon several names ranging from academic achievement to academic success to academic performance (Olanrewaju & Oyadeyi, 2014). Sadly, Nigeria’s decreasing educational quality and the breeding of graduates with limited technical know-how have resulted in major setbacks to the country’s industrial growth (Olanrewaju & Oyadeyi, 2014). Not only is this a setback for the country, but researchers have largely agreed that poor academic performance can contribute to student depression and burnout (Baring et al., 2020).

Academic performance is described as the knowledge and skills gained in a school topic, as measured by test scores (Chelvam & Ismail, 2020). It is the information obtained that is assessed by a teacher through marks and/or educational goals set by students and instructors to be achieved during a particular time period (Ahmad et al., 2015). Disappointingly, the overall educational systems have failed miserably in sustaining a high level of academic excellence and quality among students in Nigeria’s numerous institutions (Mamah et al., 2022).

Many research efforts have been undertaken in various countries to assess and determine the predictors of the phenomenon in order to improve students' academic performance (Nne & Ekene, 2020). Environment factors such as the availability of a suitable learning environment and the sufficiency of educational infrastructure such as textbooks and well-equipped laboratories have been extensively researched (Olanrewaju & Oyadeyi, 2014). However, only very few studies have focused on students' internal states, such as academic resilience and self-
esteem, and their impact on academic performance. Resilience is the psychological strength that allows humans to deal with stress and adversity (Radhamani & Kalaivani, 2021). Psychologists think that resilient people are better able to deal with hardship and rebuild their life following adversity (Oyoo et al., 2018). Resilience is defined as the positive psychological ability to recover from adversity, uncertainty, conflict, failure, or even good change, development, and more responsibility (Kašpárková et al., 2018).

Karabıyık (2020) observed that although some students accomplish less and continue to do poorly and fail, others turn their academic misfortunes around, grow, and prosper despite hardship. Such students are referred to as resilient. As a result, academic resilience relates to resilience in the educational setting, and it is described as a student's capacity to improve academic performance following a negative occurrence, such as failing an individual assessment (Abubakar et al., 2021). Academic resilience has been shown to be crucial in pupils' academic success (Njoki, 2018). For instance, Oke et al. (2016) reported that academic resilience was a significant predictor of senior secondary student’s academic confidence in Ogun state, Nigeria. The finding is based on the assertion that resilient students have the innate capacity to rebound from difficult or tragic situation. Similarly, Uzoma et al. (2022) found the academic resilience predicts emotional intelligence which in turn result in students’ academic performance.

In today's society, when everyone is striving for survival and advancement, those who are growing themselves to be more adept and successful must have a high degree of self-confidence, self-esteem, and perseverance (Bada & Hassan, 2021). Self-esteem is seen as a mental condition. It refers to how individuals see and perceive themselves (Ibrahim & Olatunji, 2017). It is the process through which individuals evaluate themselves, gain information, skills, and attitudes that will allow them to participate effectively in society (Kariuki et al., 2019). Rosenberg (1965) describes self-esteem as an individual's positive and negative judgement of their own self. It is a person's overall assessment of himself or herself, including degrees of self-worth, self-acceptance, and self-respect (Bada & Hassan, 2021). Self-esteem is simply a person's feeling of self-worth (Mamah et al., 2022).

Plentora of studies have reported that students with self-esteem are more likely to excel academically than students with low self-esteem (Bada & Hassan, 2021; Ibrahim & Olatunji, 2017; Kariuki et al., 2019. This is founded on the notion that persons with high self-esteem are more confident, cheerful, and self-respecting, whereas people with low self-esteem are worried, lack self-confidence, and are self-critical (Maina et al., 2021; Audu et al., 2016). For example, Mamah et al. (2022) found that self-esteem had a substantial effect on students' academic performance in all 290 government-owned secondary schools in Enugu State. In a similar vein, Bada and Hassan (2021) discovered that self-esteem strongly influenced students' academic achievement in Gombe metropolitan senior secondary schools. Similar findings were observed in Maina et al. (2021), Audu et al. (2016), Omeodu (2021), and Nne and Ekene (2020).

However the study observed that most of these studies reviewed asserted effort in secondary schools in Nigeria while neglecting tertiary insitutions. Audu et al. (2016) posited that higher education is one of the main factors that facilitate individuals to achieve success in obtaining a profession in order to face different life challenges. Therefore, higher degree of student's initiative, determination, and self-monitoring is required. Infact, Adebusuyi (2018) argued that success at tertiary institution may be expressed in a variety of ways depending upon the individual's self-perception in term of esteem and resilience. Thus, based on the assertion this study examined the influence of academic resilience and self-esteem on students’ academic performance with particular emphasis on Federal Polytechnic Kaura-Namoda Zamfara State.

Futhermore, based on the objective of the study, two hypotheses were formulated to guide the study.
H01: Academic resilience does not have significant effect on students’ academic performance in Federal Polytechnic Kaura-Namoda, Zamfara State.

H02: Self-esteem does not have significant effect on students’ academic performance in Federal Polytechnic Kaura-Namoda, Zamfara State.

LITERATURE REVIEW

Self-Determination Theory

This study is underpinned by the self-determination theory. The theory was propounded by Edward Deci and Richard Ryan often used to explain internal motivational drive that stimulate individual towards success (Sadeli, 2012). The theory argued that people are inherently motivated by an inbuilt need for progress and integration (Heyns & Rothmann, 2018). Motivation and the degree to which a behaviour is internalised are important factors in increasing behavioural effectiveness, volitional persistence, and subjective well-being (Kozusznik et al., 2019). In sum, the study of people's natural growth inclinations and fundamental psychological requirements, which serve as the foundation for their self-motivation and personality integration, as well as the situations that promote those beneficial processes (Abah et al., 2022). The present study revealed that self-esteem and academic resilience as personal resources innate to the students’ plays a significant role in shaping their academic performance. In other words, the way in which students evaluate themselves is likely to influence how engaged they are and how they assess their work ability (Airila, 2015).

Conceptual Framework

![Conceptual Framework](image)

The model in figure 1 represents the research framework. The predictor variables are academic resilience and self-esteem influencing the criterion variable students’ academic performance.

RESEARCH METHOD

The study used a quantitative research design, which entails applying statistical procedures to analyse numerical data to explore the relationship between two or more variables (Sekaran & Bougie, 2016). Specifically, survey and cross-sectional research designs were utilised in the study. In a cross-sectional study, the researcher investigates both the outcome and the study participants' exposures (Ojeleye et al., 2021). In survey research, researchers choose a representative sample of the general population and administer a structured questionnaire to them (Odoh & Ihedigbo, 2014). Purposive sampling was utilised in the study, with 800 questionnaires sent to students at the Federal Polytechnic Kaura-Namoda Zamfara.
state, and 682 (85%) completed. According to Ali et al. (2020) cited by Ojeleye et al. (2022) 50% response rate is sufficient to construct a plausible generalisation. As a result, the current study's 85% response rate is deemed appropriate for making a meaningful recommendation. Furthermore, 89 questionnaire items were deemed invalid, 11 missing values and 8 multivariate outliers. Hence, a total of 682 pieces were valid and subsequently used for the analyses.

Measures
Measures from previous research were modified to measure the study's constructs. Chisholm-burns et al.’s (2019) 8-item short academic resilience scale was used to assess academic resilience. Sample of the items is: "Setbacks don't discourage me," with a potential answer of 1 (strongly disagree) to 5 (strongly agree) and Cronbach's alpha ranging from 0.73 to 0.83 depending on the demographic, demonstrates the consistency of the scale. For this study the Cronbach’s alpha is 0.788. Khamis and Sulong (2012) 8-item student performance level scale was employed to measure students' academic performance using a 5-point Likert scale of 1 (strongly disagree) to 5 (strongly agree). Cronbach's alpha was determined to be 0.812, indicating that the scale is suitable for this study. Sample of the items is: I have the ability to improve based on the feedback I have received. For this study the Cronbach’s alpha is 0.805. Lastly, self-esteem was measured using ten-item Rosenberg (1965) self-esteem scale assessed on 1 (strongly disagree) to 5 (strongly agree). Sample of items is: “On the whole, I am satisfied with myself”. The Cronbach’s alpha was reported as 0.811. For this study the Cronbach’s alpha is 0.832.

Data Analysis
SPSS 24 was used to do preliminary analysis and data screening on the obtained data, such as checking and treating missing values, outlier, normality test, common method variance, and multicollinearity test. These tests were carried out to assess the nature of the data and to ensure that it had been cleansed and readied for further study. Furthermore, structural equation modelling, namely Smart-PLS 3, was employed in the study to compute the measurement model and structural model of partial least square (PLS) path modelling. This is employed because of its versatility in terms of distribution and study population, as well as its accuracy in calculating mediation and moderating effects, since it accounts for errors capable of underestimating or overestimating putative connections (Hair et al., 2017).

RESULTS AND DISCUSSION
The study's findings are discussed under the two basic models of structural equation modelling (SEM); the measurement and structural models used below:
Measurement Model

The item loadings, reliability (i.e., Cronbach’s alpha), and validity (i.e., convergent and discriminant) were explored in the measurement model. In respect of factor loadings, only items that loaded above 0.4 were retained as recommended by (Hair et al., 2021) while items that loading below the stipulated threshold were deleted (i.e., SAP3, SAP4, SAP6, SE2, SE5, SE7, SE8, AP1, AP5 and AP8). Furthermore, the constructs’ reliability was assessed using the Cronbach’s alpha and all reached the established threshold of 0.700 as recommended by (Ojeleye & Bakare, 2020). The values Cronbach’s alpha ranges from 0.763 to 0.837. In the same vein, average variance extracted (AVE) was examined to confirm the constructs’ convergent validity and as recommended by Fornell and Larcker (1981) the values are all above the 0.5 threshold.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicators</th>
<th>Loadings</th>
<th>Cronbach's Alpha</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ Academic Performance</td>
<td>SAP1</td>
<td>0.820</td>
<td>0.805</td>
<td>0.564</td>
</tr>
<tr>
<td></td>
<td>SAP2</td>
<td>0.699</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAP5</td>
<td>0.701</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAP7</td>
<td>0.879</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAP8</td>
<td>0.629</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Resilience</td>
<td>AR2</td>
<td>0.735</td>
<td>0.788</td>
<td>0.535</td>
</tr>
<tr>
<td></td>
<td>AR3</td>
<td>0.665</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AR4</td>
<td>0.794</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AR6</td>
<td>0.688</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AR7</td>
<td>0.768</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>SE1</td>
<td>0.601</td>
<td>0.832</td>
<td>0.552</td>
</tr>
<tr>
<td></td>
<td>SE3</td>
<td>0.837</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SE4</td>
<td>0.792</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SE6</td>
<td>0.860</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The study used the Fornell and Larcker (1981) discriminant validity criterion to validate discriminant validity. The square root of the AVE of each construct, according to Fornell and Larcker, must be larger than the correlations between constructs. The values of the square root of AVE surpass the values of the model's inter-correlation. In Table 3, the square roots of AVEs are represented by the bolded value on the diagonal:

<table>
<thead>
<tr>
<th>Construct</th>
<th>AR</th>
<th>SAP</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>0.732</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAP</td>
<td>0.603</td>
<td>0.751</td>
<td></td>
</tr>
<tr>
<td>SE</td>
<td>0.557</td>
<td>0.614</td>
<td>0.743</td>
</tr>
</tbody>
</table>

### Structural Model

The structural model examined the structural model to test the two hypotheses. A 5000 bootstrapping was undertaken to ascertain the relationship between the predictor and criterion variables. Furthermore, the study assessed the effect size ($f^2$), predictive relevance ($Q^2$) and coefficient of determination ($R^2$).

![Figure 3. Structural Model](image)

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Beta</th>
<th>Standard Error</th>
<th>T-value</th>
<th>P-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_{01}$ AR$\rightarrow$ SAP</td>
<td>0.813</td>
<td>0.051</td>
<td>15.975</td>
<td>0.000</td>
<td>Not Supported</td>
</tr>
<tr>
<td>$H_{02}$ SE$\rightarrow$ SAP</td>
<td>0.162</td>
<td>0.072</td>
<td>2.254</td>
<td>0.025</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>
Table 3 and Figure 3 above showed the hypothesised relationship between the predictor variables i.e., academic resilience (AR) and self-esteem (SE) and the criterion variable i.e., student’s academic performance (SAP). Firstly, the study found that academic resilience has positive significant effect on students’ academic performance at 1% significant level. A 1% increase in academic resilience will lead to a 0.813% increase in students’ academic performance in Federal Polytechnic Kaura-Namoda, Zamfara state. Therefore, the first hypothesis which states that academic resilience does not have significant effect on students’ academic performance in Federal Polytechnic Kaura-Namoda, Zamfara state is not supported. The research outcome is consistent with the findings of e.g., Njoki (2018), Abubakar et al. (2021), Uzoma et al. (2022) Likewise, the study found that self-esteem has positive significant effect on students’ academic performance in Federal Polytechnic Kaura-Namoda, Zamfara state. The positive beta value of 0.162 revealed that students’ academic performance will increase by the said figure for every 1% increase in students’ self-esteem. Consequently, the second hypothesis which states that self-esteem does not have significant effect on students’ academic performance in Federal Polytechnic Kaura-Namoda, Zamfara state is hereby not supported. The finding is in tandem with the findings of e.g., Bada & Hassan, 2021; Chelvam & Ismail, 2020; Kariuki, Ogolla, & Kimani, 2019; Olanrewaju & Oyadeyi, 2014. Furthermore, the $R^2$ which explains the variance in the criterion variable students’ academic performance that is caused by the predictor variable variables i.e., academic resilience and self-esteem was reported to be 0.833 shown in the measurement model. While the remaining 17% is explained by other variables not included in the research model.

Effect Size and Predictive Relevance

The study investigated the effect size ($f^2$) of the predictor variables on the criterion variable. This is undertaken to ascertain which among the predictor variables best explain the criterion variable. Cohen (1988) suggested that $f^2$ values of 0.02, 0.15, and 0.35, to represents small, medium, and large effects respectively. Analysing table 5 below it can be derived that academic resilience best explained the variation in students’ academic performance since the effect size is large. Furthermore, Predictive relevance $Q^2$ was used to determine the practical utility of the exogenous variable. Hair et al. (2021) is of the opinion that $Q^2$ value of 0 or negative showed that the model is irrelevant in predicting the endogenous variable the results are presented in table 4 revealed that the model has practical utility since value of 0.422 is greater than zero (0).

<table>
<thead>
<tr>
<th>Construct</th>
<th>$f^2$</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>2.734</td>
<td>Large</td>
</tr>
<tr>
<td>SE</td>
<td>0.108</td>
<td>Small</td>
</tr>
<tr>
<td>$Q^2 = 0.422$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CONCLUSION AND RECOMMENDATIONS

Students are tomorrow's leaders, and their academic success, to a large extent, defines their destiny and contribution to society. As a consequence, it is critical to research and evaluate personal resources capable of motivating them internally. Consequently, the study examined the effect of personal resource aspects of academic resilience and self-esteem on academic performance based on the assertions of self-determination theory. The study concluded that both academic resilience and self-esteem have a positive and significant effect on students'
academic performance at the Federal Polytechnic Kaura-Namoda in Zamfara state. As a result of the study's findings, the following recommendations are made.

1. Educational stakeholders (the government, school management, lecturers and school peers) should encourage students to bounce-back from seemingly difficult situations to stimulate their performance.

2. In the same vein, educational stakeholders (the government, school management, lecturers and school peers) should encourage students to build and not destroy their self-esteem by not talking down, negatively criticizing or publicly humiliating them.

REFERENCES


https://www.iiardjournals.org/get/IJEE/VOL.%204%20NO.%209%202018/TEST%20ANXIETY,%20SELF%20ESTEEM.pdf

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research, 18*(3), 382–388.  
https://doi.org/10.2307/3150980


https://doi.org/10.1177/0033294117718555

http://oer.udusok.edu.ng:8080/xmlui/bitstream/handle/123456789/799/1509958140.pdf?sequence=1

http://iojet.org/index.php/IOJET/article/view/1032

https://doi.org/10.7176/JEP/10-2-18

https://doi.org/10.1080/15555240.2018.1441719

https://doi.org/10.1016/j.sbspro.2012.09.358


Sadeli, J. (2012). The influence of leadership, talent management, organizational culture and organizational support on employee engagement. *International Research Journal of Business Studies, 5*(3), 1–21. [https://doi.org/10.21632/irjbs.5.3.30-50](https://doi.org/10.21632/irjbs.5.3.30-50)
