



The Interplay of Psychological Resilience, Motivation and Decision making in Generation Z Students

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Abstract

Generation Z university students experience a rapidly changing educational and social environment characterized by academic demands, technological development, social pressures, career uncertainty, and changing patterns of interpersonal interaction. Psychological resilience, academic motivation, and decision making are important psychological resources that may contribute to students' adjustment and functioning. The present study examined the relationships among psychological resilience, academic motivation, and decision making among Generation Z university students in Lahore, Pakistan. A quantitative, cross-sectional research design was employed with a sample of 320 university students. Data were collected using the Connor-Davidson Resilience Scale (CD-RISC), Academic Motivation Scale (AMS), and Decision-Making Style Scale. Data were analyzed using descriptive statistics, Pearson product-moment correlation, multiple regression, independent-samples t tests, and reliability analysis. Psychological resilience was positively associated with academic motivation, $r(318) = .48$, $p < .001$, and decision making, $r(318) = .55$, $p < .001$. Academic motivation was also positively associated with decision making, $r(318) = .46$, $p < .001$. Multiple regression showed that psychological resilience and academic motivation jointly explained 38.8% of the variance in decision making, $R^2 = .388$, $p < .001$. Psychological resilience ($\beta = .43$) and academic motivation ($\beta = .27$) were significant positive predictors. Gender differences were significant for psychological resilience and decision making but not academic motivation. The findings highlight the interconnected nature of resilience, motivation, and decision making among Generation Z university students and suggest implications for university counseling and student-support programs.

Keywords: Generation Z, psychological resilience, academic motivation, decision making, university students, Pakistan.



Introduction

Generation Z represents a generation of students who have developed within an increasingly digital, rapidly changing, and socially connected environment. University students from this generation encounter academic pressures alongside technological demands, career uncertainty, social comparison, and changing expectations regarding education and employment. Seemiller and Grace (2016) described Generation Z students as learners who have grown up with digital technologies and who often value meaningful educational and career experiences. These characteristics may influence how students respond to adversity, sustain academic motivation, and approach important decisions.

University education is also an important developmental period in which students are expected to manage academic responsibilities, develop personal identities, establish interpersonal relationships, and make decisions concerning future careers. Psychological resources that support adaptive functioning may therefore be particularly important during this period. Psychological resilience refers to an individual's capacity to adapt to adversity and recover from stressful or challenging experiences (Connor & Davidson, 2003; Masten, 2014). Academic motivation concerns the processes that initiate, direct, and sustain engagement in educational activities and can include intrinsic and extrinsic forms of motivation (Vallerand et al., 1992).

Decision making is another important psychological process during university life because students routinely make academic, career, interpersonal, and personal decisions. Decision-making models distinguish between adaptive approaches characterized by careful information processing and maladaptive approaches involving avoidance, procrastination, or excessive urgency (Mann et al., 1997). Resilience and motivation may contribute to decision-making functioning because students who can regulate responses to adversity and maintain engagement with meaningful goals may be better able to approach decisions systematically.

The present study therefore examined the relationships among psychological resilience, academic motivation, and decision making in Generation Z university students in Lahore, Pakistan.

1.1 Literature Review

Psychological Resilience

The concept of resilience has developed from early views of resilience as a relatively stable individual characteristic toward contemporary perspectives that conceptualize it as a dynamic process involving interactions between individual and environmental protective factors (Masten, 2001, 2014; Richardson, 2002). Masten's (2001) concept of "ordinary magic" emphasizes that resilience can emerge from ordinary adaptive systems such as effective cognitive functioning,



supportive relationships, and social resources rather than requiring exceptional psychological characteristics.

Connor and Davidson (2003) conceptualized resilience as the ability to cope with adversity, trauma, stress, and significant life challenges and developed the Connor–Davidson Resilience Scale to assess this construct. Resilience has particular relevance for university students because higher education involves academic pressure, social adjustment, financial concerns, and decisions about future careers. Research among university students has associated resilience with academic persistence, psychological well-being, adaptive coping, and lower psychological distress (Pidgion et al., 2014; Vizoso et al., 2019).

The literature reviewed in the thesis further indicates that resilience has been investigated in Pakistani educational settings. Pakistani university students may experience academic and socioeconomic pressures alongside family and cultural expectations. Consequently, culturally relevant research is important for understanding how resilience operates within this population.

Academic Motivation and Self-Determination Theory

Academic motivation is an important determinant of student engagement and persistence. Self-Determination Theory (SDT) provides an influential framework for understanding motivation and distinguishes autonomous forms of motivation from controlled motivation and amotivation (Deci & Ryan, 2000; Ryan & Deci, 2000). According to SDT, satisfaction of three basic psychological needs—autonomy, competence, and relatedness—supports more autonomous forms of motivation. The Academic Motivation Scale developed by Vallerand et al. (1992) provides a framework for assessing motivational orientations in educational settings. Autonomous motivation is particularly relevant to university students because students who perceive academic activities as meaningful and personally valuable may be more likely to sustain engagement when encountering difficulties. Generation Z students may have distinctive motivational experiences because of their familiarity with digital technology, rapid access to information, and expectations for immediate feedback. Seemiller and Grace (2016) suggested that Generation Z learners may value collaborative, meaningful, and technology-supported educational experiences. At the same time, academic pressure and social comparison may create challenges for sustained motivation. Resilience may therefore be relevant to the maintenance of academic motivation when students encounter setbacks or stressful academic experiences.

Decision Making Among University Students

Decision making involves identifying alternatives, evaluating information, and selecting a course of action. University students engage in decision making across academic, career, interpersonal,



and personal domains. The literature distinguishes between careful and vigilant decision processes and less adaptive patterns such as avoidance, procrastination, and hypervigilance (Mann et al., 1997).

The Melbourne Decision Making Model identifies vigilance as a style involving careful information processing, whereas avoidance and hypervigilance involve less adaptive responses to decision-related stress (Mann et al., 1997). Decision-making processes may be affected by emotional states, perceived stress, self-efficacy, and motivational factors.

Resilience may contribute to adaptive decision making because resilient individuals may be better able to maintain cognitive and emotional stability when confronted with uncertainty or adversity. The broaden-and-build perspective also suggests that positive emotional states can broaden attentional and cognitive resources, potentially supporting more flexible responses to problems (Fredrickson, 2001). Motivation may similarly influence decision making because students who are strongly engaged with meaningful goals may devote greater effort to evaluating alternatives and pursuing desired outcomes.

Generation Z University Students

Generation Z students have developed during a period characterized by extensive digital connectivity and rapid technological change. Their educational experiences may differ from those of earlier generations because digital technologies are integrated into communication, learning, information seeking, and social interaction. Seemiller and Grace (2016) emphasized the educational implications of Generation Z's technological environment.

The COVID-19 pandemic further affected the educational experiences of many Generation Z university students. University closures, transitions to online learning, social isolation, and uncertainty created additional challenges for academic engagement and psychological well-being. Son et al. (2020), for example, documented mental-health concerns among college students during the pandemic.

Within Pakistan, university students also operate within cultural and family contexts that may influence academic motivation and decision making. Family expectations, socioeconomic circumstances, and educational opportunities can influence students' educational choices and psychological adjustment. These contextual factors make it important to investigate resilience, motivation, and decision making within Pakistani university populations rather than relying exclusively on findings from Western contexts.

Interrelationship Among Resilience, Motivation, and Decision Making



The literature provides theoretical reasons to expect relationships among psychological resilience, academic motivation, and decision making. Resilient students may be better able to recover from academic setbacks and maintain engagement with educational goals. In turn, sustained motivation may support purposeful and deliberate decision making.

The thesis literature review identifies a relative lack of research examining all three constructs simultaneously among Generation Z university students in Pakistan. Much of the existing research has examined individual relationships, such as resilience and psychological well-being or motivation and academic outcomes. An integrated examination of resilience, motivation, and decision making can therefore provide a more comprehensive understanding of psychological functioning among university students.

The present study addressed this gap by examining the three constructs simultaneously in a sample of Generation Z university students in Lahore. The study specifically examined the relationships between resilience and academic motivation, resilience and decision making, and academic motivation and decision making, while also investigating the predictive contribution of resilience and motivation to decision making.

1.2 Method

Research Design

A quantitative, cross-sectional research design was used. The study examined psychological resilience, academic motivation, and decision making among Generation Z university students in Lahore, Pakistan. The cross-sectional design allowed relationships among the variables to be statistically examined but did not permit causal conclusions.

Participants and Sampling

The study included 320 university students enrolled in higher education institutions in Lahore. The sample included male and female students from government and private universities. The thesis methodology used a non-probability sampling approach, with students selected according to the study's inclusion criteria.

Measures

Connor–Davidson Resilience Scale. Psychological resilience was assessed using the 25-item Connor–Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003). The scale assesses perceived capacity to cope with adversity and stressful experiences.

Academic Motivation Scale. Academic motivation was assessed using the Academic Motivation Scale developed by Vallerand et al. (1992). The scale assesses motivational orientations related to educational engagement.



Decision-Making Scale. Decision making was assessed using the decision-making measure described in the thesis, which assesses decision-making characteristics and styles. The thesis reports a 25-item Decision-Making Style Scale for the final statistical analysis.

Procedure

Participants were approached through university settings and were provided with information regarding the purpose of the research. Participation was voluntary, and confidentiality of responses was maintained. Participants completed the demographic questionnaire and study instruments. The collected data were entered into SPSS for statistical analysis.

Data Analysis

Descriptive statistics were calculated for all study variables. Pearson product-moment correlation was used to examine associations among resilience, academic motivation, and decision making. Multiple regression was conducted to determine whether psychological resilience and academic motivation predicted decision making. Independent-samples *t* tests were used to examine gender and university-type differences. Internal consistency was examined using Cronbach's alpha.

1.3 Results

Descriptive Statistics

Variable	N	Mean	Median	Mode	Std. Deviation	Minimum	Maximum
Psychological Resilience	320	22.86	23.00	23	3.48	14	30
Academic Motivation	320	101.72	102.00	104	14.26	48	140
Decision Making	320	40.91	41.00	42	6.17	22	56

Psychological resilience had a mean of 22.86 ($SD = 3.48$), academic motivation had a mean of 101.72 ($SD = 14.26$), and decision making had a mean of 40.91 ($SD = 6.17$).

Correlations

Variable	1	2	3
Psychological Resilience	—		



Academic Motivation	48**	—	
Decision Making	55**	46**	—

Note. (n=320) Correlation is significant at the 0.01 level (2-tailed).

Psychological resilience demonstrated significant positive relationships with academic motivation and decision making. Academic motivation was also significantly positively related to decision making.

Multiple Regression

Variables	R	R ²	ΔR ²	B	β	SE	t	p
Model 1	.623	.388	.384					
(Constant)				12.41		2.18	5.69	< .001
Psychological Resilience				0.53	.43	0.07	7.61	< .001
Academic Motivation				0.14	0.03	.27	4.92	< .001

Note. The regression model was statistically significant at ** $p < .001$

Multiple regression analysis showed that psychological resilience and academic motivation jointly explained 38.8% of the variance in decision making, $R = .623$, $R^2 = .388$, adjusted $R^2 = .384$, $F(2, 317) = 102.64$, $p < .001$. Psychological resilience significantly predicted decision making, $B = .53$, $SE = .07$, $\beta = .43$, $t = 7.61$, $p < .001$. Academic motivation also significantly predicted decision making, $B = .14$, $SE = .03$, $\beta = .27$, $t = 4.92$, $p < .001$.

Group Differences

Variable	Levene's <i>F</i>	Sig.	<i>t</i>	df	Sig. (2-tailed)
Psychological Resilience	1.14	.286	2.47	318	.014
Academic Motivation	0.69	.407	-1.43	318	.154
Decision Making	0.32	.574	2.36	318	.019

Male students reported higher psychological resilience than female students, $t(318) = 2.47$, $p = .014$, $d = .28$. Male students also reported higher decision-making scores, $t(318) = 2.36$, $p = .019$,



$d = .27$. The gender difference in academic motivation was not statistically significant, $t(318) = -1.43, p = .154, d = .16$.

Comparisons between university types indicated higher resilience among government university students, $t(318) = 3.23, p = .001, d = .36$, whereas private university students reported higher academic motivation, $t(318) = -2.36, p = .019, d = .26$, and decision-making scores, $t(318) = -2.35, p = .020, d = .26$.

Reliability

Scale	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Connor–Davidson Resilience Scale	.91	.91	25
Academic Motivation Scale	.89	.90	28
Decision-Making Style Scale	.87	.88	25

The instruments demonstrated satisfactory to excellent internal consistency. Cronbach's alpha was .91 for the CD-RISC, .89 for the Academic Motivation Scale, and .87 for the Decision-Making Style Scale.

1.4 Discussion

The present study examined psychological resilience, academic motivation, and decision making among Generation Z university students. The findings demonstrated significant positive relationships among all three variables. Psychological resilience was positively associated with academic motivation, supporting the theoretical proposition that resilient students may be better able to maintain academic engagement when confronted with challenges.

The relationship between resilience and motivation is consistent with Self-Determination Theory because psychological resources that support competence and effective coping may facilitate sustained engagement with meaningful academic activities (Deci & Ryan, 2000). The finding is also consistent with previous research reviewed in the thesis indicating relationships between resilience and adaptive academic functioning among university students.

Psychological resilience also demonstrated a significant positive association with decision making. This finding is theoretically consistent with perspectives suggesting that resilient individuals may maintain emotional and cognitive functioning during stressful circumstances. The broaden-and-



build framework provides one possible explanation because positive psychological states may broaden cognitive resources and support flexible responses to challenging situations (Fredrickson, 2001).

Academic motivation was also positively associated with decision making. Students who remain engaged with academic goals may invest greater cognitive effort in evaluating choices and pursuing goal-consistent actions. The regression analysis further indicated that resilience and academic motivation jointly accounted for 38.8% of the variance in decision making. Both variables made statistically significant contributions, with psychological resilience showing the larger standardized regression coefficient.

Gender analyses showed statistically significant differences in resilience and decision making, whereas academic motivation did not significantly differ by gender. Because the effect sizes were small, these differences should be interpreted in terms of statistical rather than necessarily substantial practical differences.

Overall, the findings extend the literature by examining resilience, motivation, and decision making together within a Pakistani Generation Z university sample. The results support the relevance of studying these constructs as interconnected aspects of student psychological functioning.

1.5 Conclusion

The study demonstrated significant positive relationships among psychological resilience, academic motivation, and decision making among Generation Z university students. Psychological resilience and academic motivation were significant predictors of decision making and together explained 38.8% of its variance. The findings suggest that resilience and motivation are important psychological factors associated with students' decision-making functioning.

The study contributes to the growing literature on Generation Z university students by providing evidence from a Pakistani higher education context. The findings may be relevant to university counseling services, student-support programs, and psychological interventions designed to strengthen resilience, maintain academic motivation, and develop effective decision-making skills.

1.6 Practical Implications

University counseling centers may consider integrating resilience-building activities into student-support services. Psychological interventions can focus on adaptive coping, emotional regulation, problem solving, and persistence following academic setbacks. Academic counselors may also incorporate motivational strategies that help students identify personally meaningful educational



goals and strengthen autonomous engagement. Decision-making skills training may be particularly useful for academic and career counseling, where students frequently encounter complex choices. Faculty members can contribute by creating learning environments that provide constructive feedback, meaningful choices, and opportunities for students to experience competence and connectedness. Universities may also consider peer-support and mentoring programs that promote social resources associated with resilient functioning.

1.7 Limitations and Future Directions

The cross-sectional design limits causal interpretation of the findings. Longitudinal research could examine whether changes in resilience and motivation are associated with subsequent changes in decision making. The study also relied on self-report measures, which may be affected by response bias and social desirability. Future research could combine self-report instruments with behavioral or qualitative measures.

The sample was restricted to university students in Lahore, limiting generalization to other regions and populations. Future studies should include students from different Pakistani cities, socioeconomic backgrounds, and educational settings. Mixed-methods research could also provide greater understanding of how students experience resilience, motivation, and decision making in everyday academic and cultural contexts.

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