

# Learner's Leadership Influence on Loyalty Behavior in University: The Mediating Role of Self-Efficacy and Affective Commitment<sup>\*</sup>

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## Abstract

The purpose of this study is to explore the crucial role of student leadership in stimulating the affective connection of college students to their institutions in Guangxi. The results reveal a continuous chain mediation model, which originates from the context-specific practice of student leadership and leads to loyalty to the institution through self-efficacy and affective commitment. The data obtained from the questionnaires distributed to ten colleges and universities in Guangxi show that the development of college students' leadership cannot affect their loyalty to the institution through their sense of self-efficacy, it is through affective commitment that students can influence their loyalty to the institution.

**Keywords:** Student's; Leadership; Self-efficacy; Affective Commitment; Student loyalty

## 1. Introduction

Guangxi Zhuang Autonomous Region, located in southern China and close geographical proximity to ASEAN countries, boasts a rich history of cultural exchange between nations and ethnicities. Within the public universities of Guangxi, there is a burgeoning interest among college students in researching leadership development (Ding & Ye, 2021, pp. 405-420). Notably, these institutions are committed to nurture a generation of socially responsible individuals, aiming to enhance students' capabilities for societal

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service while aligning with national culture and strategies. Amidst the early stages of Chinese higher education institutions students being influenced by Western approaches to leadership development, Asian student leadership, particularly in Guangxi, is undergoing a developmental phase. Despite some universities emphasizing student leadership education, a comprehensive understanding and overall attention to leadership education remain insufficient. Student leadership practices inventory takes the leadership of college students as the research background; while improving the ability of college students in all directions, it will also have a positive impact on the psychology of college students (Su & Wang, 2023, pp. 11-23).

Student loyalty holds significant importance for the sustainability of higher education institutions. Through diverse course designs and arrangements, universities in Guangxi aim to elevate students' self-efficacy and foster their commitment to the institution, ultimately enhancing student loyalty. In the context of Chinese higher education, leadership development faces the influence of mediating factors such as self-efficacy and organizational commitment (Ismanova, 2019, pp. 1161-1168). Therefore, gaining insights into the complex relationships among leadership, self-efficacy, affective commitment, and loyalty is crucial for cultivating a supportive and engaging learning environment for college students in Guangxi.

This empirical into the intricate connections among these factors, with a specific focus on the mediating roles of self-efficacy and affective commitment. The research emphasizes how college students' confidence in their abilities and affective commitment during their academic journey mediates the relationships between leadership and loyalty.

## **2. Research Objectives**

1. To study the direct effects between college students' leadership, self-efficacy, affective commitment, and student loyalty.
2. To explore the mediating relationships between the college students' leadership and student loyalty.
3. To propose appropriate organizational management models to enhance the loyalty of Chinese college students.



### 3. Methods

#### 1. Population and Sample

There are 26 public higher educational institutions in Guangxi Zhuang Autonomous Region, Nanning is the provincial capital city of Guangxi, which gathers a large number of educational resources. Among these 26 public higher educational institutions, Nanning accounts for 10 of them. Therefore, this research takes the number of college students from the 10 public higher educational institutions in Nanning as the population of students in the study. Based on the formulation for determining sample size which 387 were obtained for empirical analysis (Krejcie & Morgan, 1970, pp. 607-610). The percentage of all demographic variables were in Table 1.

**Table 1** Percentage of all Demographic Variables (N = 387)

Variables	Percentage
<b>Gender</b>	
Male	58.9 (228)
Female	41.1 (159)
<b>Age</b>	
18-20	7.5 (29)
Greater than 20-21	35.1 (136)
Greater than 21-23	44.2 (171)
Greater than 23-25	10.1 (39)
Greater than 25 and above	3.1 (12)
<b>Education</b>	
Bachelor	84.5 (327)
Master	15.5 (60)
<b>Level</b>	
Fresh	5.7 (22)
Sophomore	11.1 (43)



Variables	Percentage
Junior	16.3 (63)
Senior	66.9 (259)
<b>Member of Student Union</b>	
Yes	26.9 (104)
No	73.1 (283)

## 2. Quantitative Method

It is a quantitative study that uses Smart-PLS statistical software to test hypotheses and the validity of the proposed model's structure. Following this, the validity of items, as determined by factor loadings, is assessed. Factor loadings are pivotal components of the measurement model, leading to Confirmatory Factor Analysis (CFA) to evaluate discriminant validity and reliability. The PLS-SEM is appropriate to use in our study because the goal of our study is to explore and examine the proposed research model.

### 2.1 Measurement

The questionnaire for this study consisted of 75 items using a 5-point Likert scale. The questionnaire was composed of the following scales. (a) Posner (2004, pp. 443-456) upgraded the student leadership practice inventory (SLPI), a survey questionnaire containing 30 behavioral statements with six items for each of the five practices. (b) The general self-efficacy scale (SE) which was initially developed in Germany and revised by Schwarzer & Jerusalem (2012) contained ten-item; (c) Davidson, Beck, & Grisaffe (2015, pp. 162-185) further improved college student institutional commitment scales (AC) to form the College Persistence Questionnaire (CPQ-V2) contained 6 items; (d) Encinas Orozco and Cavazos Arroyo (2017, pp. 96-110) proposed using college students to measure loyalty scale (SL) by considering students as members of organizational consumers contained 5 items.

To improve the reliability of the questionnaire, a pilot test survey was carried out. There were 44 valid questionnaires were analyzed and tested by items. In the pilot test Cronbach's alpha items below .700 were deleted. So, the SLPI had five practical



behaviors which included six items, content of the result retained 5 items after averaged the values of items, SE and AC retained 5 items. In addition, the items of SL are all reserved.

## 2.2 Assessment of Measurement Model

Based on Hair et al. (2011), the item reliability which Factor Loading the rules of thumb for model evaluation mention that reflective measurement models' indicator reliability should be greater than .700. The value of Cronbach's alpha (CA) should be larger than 0.700. The value of composite reliability (CR) should be greater than 0.700. The value of average variance extracted (AVE) should be larger than 0.500. Fornell-Larcker criterion which the diagonal values are the square root of AVE. The AVE of each LV should be greater than the LV's highest squared correlation with any other LV. The details are shown in Table 2.

Table 2 Construct Reliability and Validity of SLPI, SE, AC, and SL

[illegible]



Construct	Items	Loading	CA	CR	AVE	SLPI	SE	AC	SL
	AC4	.712							
	AC5	.825							
SL	SL1	.900	0.944	0.957	.818	.462	.504	.745	.905
	SL2	.922							
	SL3	.935							
	SL4	.890							
	SL5	.873							

**Note:** The diagonal value is the square root of AVE.

### 2.3 Assessment of the Structural Model

The data in this study was at the ordinal level which collected 5-likert scales; it means the data was Non-normality Distributed in CB-SEM, in Non-normality Distributed, the Chi-square in our model fit and standard error would be overestimated. the CB-SEM assumption of multivariate normality was not work which used Bollen-Stine method to adjust the Chi-square (Bollen & Stine, 1992, pp. 205-229). The results of the structural equation analysis were as follows: CMIN/DF = 1.46, p-value = 0.000, AGFI = 0.950, IFI = 0.990, GFI = 0.960, CFI = 0.990, SRMR= 0.066, and RMSEA = 0.030. All values met the required criteria, indicating that the structural equation model was suitable. Therefore, it could be concluded that the independent variables in the structural equation model, including green knowledge, green perceived behavioral control, and subjective norms, affect green purchase intentions through green purchase attitude at a statistical significance level. A Chi-square value of less than 5.00 and 3.00 indicates a very good fit (Hair, Ringle, & Sarstedt, 2011, pp. 139-152). Based on the measurement criteria, AGFI, IFI, CFI, and GFI should be greater than 0.90 and RMSEA must be less than 0.08. The standardized root means square residual (SRMR) below 0.080 usually represent an acceptable fit (Pinedaa et al., 2022, pp. 53-70). All values met the set criteria, confirming that the developed structural equation had a good fit to the data.



## 4. Results

Direct impact, as shown in Table 3. The results showed that SLPI had no significant effect on SL ( $t < 0.226$ ; CI [-0.085 0.106]) and SE had non-significant effect on SL ( $t < 1.589$ ; CI [-0.023 0.212]); Therefore, assuming H3 and H5 was not supported.

**Table 3** Direct Effect

Hypotheses	Direct Effect	path	t	p	LLCI	ULCI
H1	SLPI → AC	0.287	4.457	***	0.162	0.414
H2	SLPI → SE	0.718	25.369	***	0.660	0.772
H3	SLPI → SL	0.011	0.226	N.S.	-0.085	0.106
H4	SE → AC	0.382	5.683	***	0.248	0.509
H5	SE → SL	0.094	1.589	N.S.	-0.023	0.212
H6	AC → SL	0.684	15.499	***	0.596	0.768

**Note:** \*\*\*  $P < 0.001$ ; N.S. = no Significant.

Table 4 provides the mediating effect of hypotheses results. SLPI was non-significant effect on SL ( $H3$ ; = 0.11,  $t \leq 0.226$ ), in the multiple mediator model, controlled paths coefficient values, a previously significant relation between the independent and dependent variables changes its value significantly, if the  $SLPI \rightarrow SL$  was non-significant mean the multiple mediators were full mediation. However, in this model  $SE \rightarrow SL$  was no significance which the SE was not the mediator. The outcome was proved that the AC was the full mediation. SE mediated the influence of SLPI on AC ( $H7$ ; = 0.274,  $p \leq 0.001$ ). SLPI indirectly influenced AC through SL ( $H9$ ; = 0.16,  $p \leq 0.001$ ). AC was found to positively mediate the relationship between SE and SL ( $H10$ ; = 0.261,  $p \leq 0.001$ ). The results further confirmed the serial mediation of SE and AC between SLPI and SL ( $H5$ ; = 0.187,  $p \leq 0.001$ ). The variance accounted for (VAF) of multiple mediators, in which the VAF of  $SLPI \rightarrow AC \rightarrow SL$  was 94.69%. But the t-value was 1.564 ( $t < 1.96$ ), so  $SLPI \rightarrow SE \rightarrow SL$  was no mediation. The VAF of the multiple mediators was  $VAF > 80\%$ , which means the AC mediator was in full mediation (Hair, 2014).

**Table 4** Specific Mediating Effect

	Mediating Effect	path	t	p	LLCI	ULCI
H7	SLPI → SE → AC	0.274	5.623	***	0.176	0.369
H8	SLPI → SE → SL	0.068	1.564	N.S.	-0.016	0.157
H9	SLPI → AC → SL	0.196	4.468	***	0.112	0.284
H10	SE → AC → SL	0.261	5.125	***	0.163	0.362
H11	SLPI → SE → AC → SL	0.187	5.078	***	0.118	0.262

**Note:** \*\*\*  $P < 0.001$ ; N.S. = non-Significant.

## 5. Discussion

In the context of higher education, the promotion of SLPI, through the influence of SE and AC, can promote college students' loyalty to their higher educations. However, SE had no significant effect on SL in this study. Previous studies have considered the SLPI of lecturers, which increases students' collective interest and helps them achieve their learning goals, this paper discusses the intermediary mechanism of SE as lecturer SLPI, and lecturer SLPI improves students' SE (Liu, Bellibas, & Gümüs, 2020, pp. 430-453). These studies are limited to the SLPI of lecturers in universities, and such subjects do not meet the responsibilities of lecturers who teach in Chinese universities, as these lecturers or professors leave the school after their classes, their interactions with students don't even influence the student enough; one possibility is that SLPI plays a reverse role in managers' self-efficacy and customer loyalty, on the basis of the relationship between employees and customers, the high SLPI of leader can make followers rely on, thus neglecting the expansion of their own capabilities, which can reduce the positive impact of followers' self-efficacy, and then affect the loyalty.

Another possibility previous research has found that Asian students have lower levels of "Initiative" and lower degree ambitions than Non-Asian students. Asian students tend to have lower self-efficacy, even though they sometimes perform better academically. One explanation may be that students who grow up in collectivism cultures, they know that hard work and personal effort are valued more than high ability. As a result, they rated their self-efficacy lower than those who grew up in an individualistic culture (Chen





& Starobin, 2018, pp. 171-189). Another explanation is that the majority of college students who lack self-efficacy tend to stress students' achievement rather than self-efficacy, which is a social reality. As a result, most students who do well on exams tend to be less confident onstage because they have long-term concerns about their grades. China's higher education has neglected the importance of cultivating students' self-efficacy and personal ability.

## 6. Suggestions

In this article, it was worth deserving the significance of AC, it was made SLPI effect on SL through the sequential mediation of SE and AC. So, we recommendations following like this:

1. Current tailor-made leadership development initiatives for university students often draw on frameworks and research originally developed for managerial roles in business and the public sector. Recognizing this gap, the student leadership practice inventory (SLPI) emerged as a specialized tool to address the unique contexts and requirements of leadership development programs for college students.
2. Within educational contexts, students establish goals and exhibit diverse levels of self-efficacy for the learning process. As they immerse themselves in tasks, they acquire competencies and assess their learning ability. The perception of advancement sustains self-efficacy, fuels motivation, and fosters the learning journey.
3. Colleges and universities should encourage teachers to carry out various forms of academic research, cultivate and strengthen the leadership of college students, and provide professional support and corresponding incentives. At the same time, encourage students to participate in the leadership-related academic research, to develop suitable evaluation standards for college students, to establish a feedback mechanism for the development of college students' leadership.

## 7. Knowledge Assets

This study establishes a model of student loyalty to enhance the impact of the leadership practice of college students in Guangxi higher education institutions. The results show that, basically consistent with the research hypothesis, the leadership practice of



college students has a significant impact on self-efficacy, affective commitment; The improvement of college students' loyalty by leadership can be achieved through self-efficacy and affective commitment, and affective commitment plays a vital role in this process. Although self-efficacy did not play a mediating role in this empirical study, it also provides direction for researchers in future research, and can further study the improvement of self-efficacy of public university students in Guangxi, and the researchers would combine the Chinese culture variables to do further research on college students' leadership and self-efficacy. The results of this study could provide a reference for the study of college students' leadership in China. It is a significant sign that college students in Guangxi are slowly beginning to understand leadership and change their behavior to become more focus on their own development.

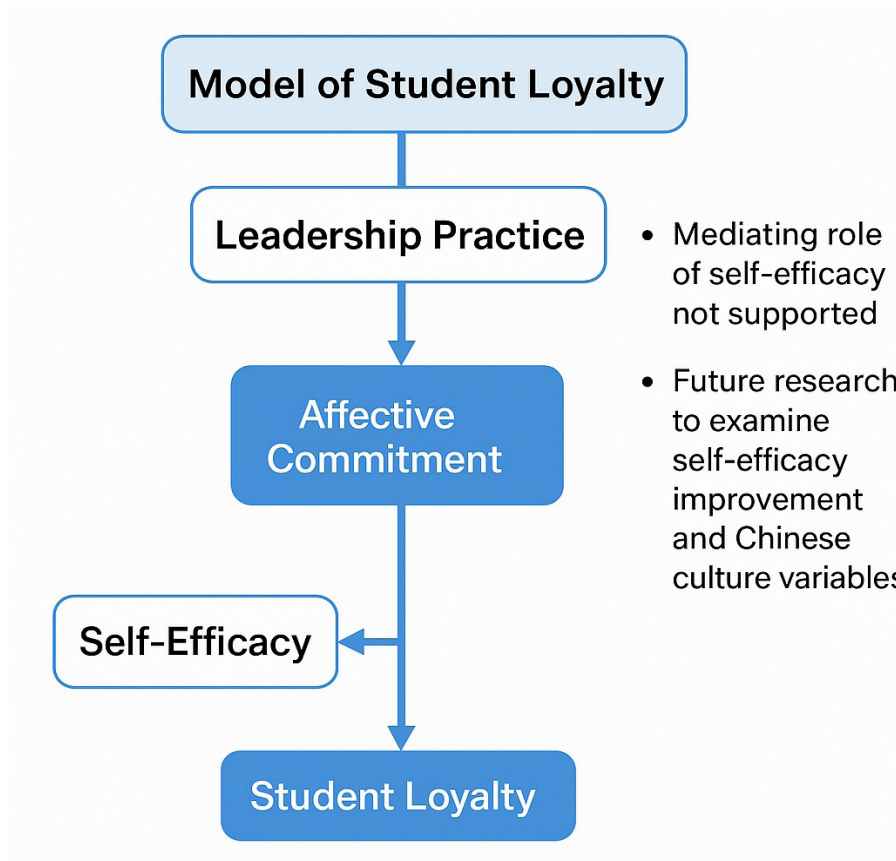


Figure 1 New knowledge



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