



Influence of family satisfaction and university satisfaction on learning motivation among university students in Sichuan, China

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Abstract

Learning motivation is one of the central psychological constructs that influence university students' willingness to engage, withstand, and succeed in learning processes. With the altering education context of China, it is necessary to identify factors that are influential in motivation to enhance academic success and individual development. The independent and interactive influences of family satisfaction and university satisfaction on learning motivation among undergraduate students from Sichuan province, China, were examined in this study. 424 students from six universities were recruited using stratified random sampling and cross-sectional quantitative design was utilized using validated measures. Data were gathered with Wenjuanxing, a secure online system, and tested with independent samples t-tests, one-way ANOVA, and hierarchical multiple regression analyses. Findings showed that overall learning motivation of the students was moderate with significant differences based on gender and age. Younger students and women were found to express more intrinsic motivation. Satisfaction with university and family were found to correlate positively with motivation, but that university satisfaction was the stronger predictor. Some dimensions such as faculty support, academic resources, and personal growth opportunities had the greatest influence. The findings highlight the reciprocal effects of home and institutional milieus in the preservation of student motivation. The study adds to the understanding of Chinese higher education motivation dynamics and offers practical recommendations for developing custom, student-centered strategies that foster engagement and academic tenacity.

Keywords: Learning motivation; family satisfaction; university satisfaction; higher education; university students

Introduction

Chinese university students' learning motivation has increasingly captured research interests in recent years. As higher education is experiencing accelerated changes in the context of technological, social, and cultural revolutions, the capacity of students to maintain high levels of learning motivation is being viewed as a decisive factor in academic achievement and long-term self-development. Not only does it drive mental effort and resilience but also predicts performance results, well-being, and employability (Li & Chen, 2021; Wang, 2022) [8, 23, 36, 38].

However, recent empirical studies indicate that most university students in Sichuan are characterized by low or unstable learning motivation. Wang (2022) [36, 38] recorded that few of the students exhibited high learning autonomy, a required component of intrinsic motivation. Similarly, Li and Zhang (2021) [23, 44] indicated that a large proportion of students admitted finding it difficult to balance self-directed study and sustain motivation levels. Zhao *et al.* (2023) also reported a downturn in academic motivation among region's undergraduates and raised questions regarding the quality of learning and graduate readiness. These findings emphasize the importance of finding out about factors influencing students' learning motivation within this specific sociocultural context.

Apart from general levels of motivational inclinations, several studies point to potential gender differences in motivational inclinations towards learning. Liu (2020) found variation between male and female students in social affiliation, fear-of-failure, and achievement goal-related motivational orientations. Concurrently, Wang *et al.* (2021) [37, 39], Zhang (2022), and Zhao (2023) also pointed out that

female students are likely to show increased intrinsic motivation and interest in learning, but male students are more likely to rely on extrinsic rewards from the outside.

Age has also emerged as a significant indicator for learning motivation development. Research supports the fact that there are different drivers of motivation for students at different points in life and with different needs and expectations (Li & Chen, 2021; Li, 2022) [8, 20, 21, 22, 23, 24]. Given the expanding demographic university enrollments in Sichuan by age, the need arises to untangle how shifts in motivation occur by age. Liu and Zhang (2023) [45] underlined the necessity of addressing age-related motivational problems in creating effective learning interventions. However, the interaction between age and motivation to learn in Sichuan's university setting continues to wait for proper investigation.

Beyond the personal characteristics such as gender and age, environmental factors contribute largely towards student motivation. Family satisfaction has been characterized as one of the foremost predictors across Chinese cultures, where the family remains at the center of emotional as well as educational support. Family functioning was observed to have a significant contribution towards students' academic attitude and performance (Shek, Leung, Li, Dou, & Zhu, 2024). Family satisfaction has been associated with students' self-efficacy, goal persistence, and resilience (Zhang, 2021; Li & Wang, 2022; Zhao & Li, 2020; Liu & Zhang, 2023) [20, 21, 22, 24, 36, 38, 44, 45]. Family satisfaction encompasses emotional intimacy, communication, parental involvement, and support for personal growth. Instead of examining the combined impact of the above factors, the majority of studies consider the variables in isolation. The overall effect

of family dynamics as a whole on students' patterns of motivation in the Chinese sociocultural context is still not well researched. Parallel to family effects, university satisfaction has also emerged as another determinant of learning motivation.

Beyond scholarly education, universities also socialize and condition emotional environments to promote students' engagement and well-being. Empirical studies have established that the effectiveness of communication (Wang & Li, 2021) ^[23, 37, 39], emotional support (Li *et al.*, 2020), and support for personal growth (Zhang & Wang, 2023) ^[45] are positively associated with student motivation and satisfaction. However, previous studies will contextualize these aspects. Therefore, no systematic research has been done in the Chinese higher education system to determine how different factors of university satisfaction affect motivation.

Literature Review

Family Satisfaction

Family satisfaction refers to the overall evaluation of the family environment by individuals, involving emotional attachment, communication, and support among members of the family. Xie and Zeng (2018) examined the relation between parenting style and academic satisfaction in university students and found that positive and supportive parenting was associated with higher family and academic satisfaction. Similarly, Nordberg and Nilsson (2019) examined single-parent families and found parent-child relationship quality to be a good predictor of family satisfaction.

Communication styles in the family are also significant. Kim and Yoon (2019) examined communication styles in immigrant families and established that open and empathetic types increased family satisfaction, whereas avoidance or conflictual styles decreased it. Zhang and Wang (2020) researched students who came from low SES backgrounds and established that the lack of study resources and parental unsupported backgrounds decreased both family satisfaction and learning enjoyment. They suggested that families and schools work together to enhance parental involvement and offer emotional and material support to gain students' motivation and well-being.

Among ethnic minority college students, Zhang, Fu, and Li (2021) ^[23, 44] identified that family satisfaction was positively correlated with parents' emotional warmth and understanding, and negatively correlated with strict and overprotection. Zhang, Fu, and Li (2021) ^[23, 44] also identified that types of fathers were strong predictors of general family satisfaction. Likewise, Sabah *et al.* (2023) investigated family resilience and satisfaction during the COVID-19 pandemic and learned that more resilient families were more satisfied even in challenging circumstances. Wang and Zhang (2022) ^[36, 38] also illustrated the mediating role of parental educational involvement, emotional intelligence, and family socioeconomic status in the prediction of students' life satisfaction. These studies collectively emphasize that family satisfaction is influenced by style of parenting, communication effectiveness, financial status, and emotional support.

University Satisfaction

University satisfaction is the general assessment that students have for their university life, including academic, social, and environmental items. Zhang (2018) concluded that greater mental health and self-efficacy were significant predictors of enhancing university satisfaction. Similarly, Zhang and Zhang (2019) concluded that good relationships with parents and friends were related to higher satisfaction in university life.

Satisfaction is also determined by socioeconomic status and academic support. Yuan and Cui (2020) determined that students who had higher family incomes and students who had received good academic support had higher satisfaction with their university experience. Zhao and Li (2018) also indicated that support, as perceived by the faculty, greatly influenced satisfaction since students valued instructors who were caring and accessible.

Other researchers discovered other determinants of satisfaction. Chen and Wang (2017) discovered that opportunities for career development had a positive effect on the level of satisfaction, while Zhou and Wu (2019) believed that feeling safe on campus was the determinant of general student satisfaction. Engaging in extracurricular activities was on the agenda; Liu and Zhang (2020) discovered that high engagement in every activity increased students' feeling of belonging and satisfaction. Lastly, Wang and Li (2021) ^[23, 37, 39] concluded that time management skills had a very strong positive relationship with satisfaction, revealing control and structure in the middle of impacting the university student's life.

Learning Motivation

Learning motivation is well known to be a key factor in affecting the participation and learning achievements of students. Luo *et al.* (2018) discovered that students with greater autonomous learning motivation tended to be more participating and attained better academic achievements. Likewise, Liu and Han (2020) showed that students with greater self-directed motivation attained greater learning effectiveness in e-learning.

Zhou and Ma (2021) tested the impact of self-efficacy and established that it positively contributed to motivation, which was mediated through learning habits self-regulated. Zhang and Li (2022) ^[20, 21, 22, 24] established that motivation was highly correlated with the choice of learning strategy and how students structure and approach their studies. Laura and Janke (2023) noted that intrinsic enrollment motivation was able to predict intrinsic motivation in the long run, decrease dropout intentions, and modestly enhance academic performance.

Studies further emphasize the influence of external issues and learning environments on motivation. Hanif and Muhammad (2019) established that traditional lecture methods decreased motivation, while interactive classes enhanced media use. Tasneem Khan *et al.* (2019) established that the application of augmented reality software dramatically enhanced students' motivation through enhancing satisfaction, confidence, and concentration. In the same way, Shin and Myeong-Hee (2018) proved that technology-enabled project-based learning enhanced motivation, particularly when activities had personal significance. Lastly, Yang and Li (2022) ^[20, 21, 22, 24] pointed out that internal motivation was the primary

driver of motivational intensity, but good management of external motivation also enhanced it.

Family Satisfaction and Learning Motivation

Family climate is one of the major bases for influencing students' motivation to learn. Meeting family health, which comprises emotional support, quality communication, and parental involvement, results in self-efficacy, persistence, and learning enjoyment. Research shows that students are more likely to have greater intrinsic motivation and learning persistence if they feel that their domestic learning environment encourages them (Zhang Hua, 2021; Li Qiang & Wang Wei, 2022; Zhao Li & Li Ming, 2020; Liu Na & Zhang Ting, 2023) [20, 21, 22, 24, 36, 38, 44, 45].

On the other hand, low family satisfaction, either brought on by conflict, communication breakdown, or insufficient emotional support, can undermine students' learning confidence and interest. Other research indicates that socioeconomic differences and parental investment in education indirectly affect learning motivation through perceived family happiness (Zhang Na & Wang Yue, 2020). Thus, promoting family satisfaction matters in sustaining learning motivation in university students.

University Satisfaction and Learning Motivation

University-level satisfaction is another essential external factor that affects the learning motivation of students. A supporting and interesting university environment enhances the learning enthusiasm of students and validates their sense of direction. Wang and Li (2021) [23, 37, 39] identified effective communication in universities as positively related to satisfaction and motivation. Li *et al.* (2020) also emphasized the contribution of emotional support in developing a favorable learning experience and motivation among Chinese university students.

Parental engagement, although generally connected to household relationships, can indirectly influence university satisfaction as well. Li and Zhao (2022) [20, 21, 22, 24] found that students whose parents experienced engaged participation in their college years experienced greater levels of satisfaction and motivation. Zhang and Wang (2023) [45] also found that support from institutions towards personal development was strongly linked with greater levels of satisfaction and motivation. Such support exists in the avenues of mentoring programs and professional development training. These results collectively identify that satisfaction with the university mediates the relationship between institutional support systems and students' intrinsic motivation to learn.

Relevant Theories

The research is theoretically based on Self-Determination Theory (SDT) and Bronfenbrenner's Ecological Systems Theory. Based on Deci and Ryan (1985), Self-Determination Theory focuses on how the motivation to learn is born from fulfilling three fundamental psychological needs of autonomy, competence, and relatedness. When parents and university settings are supportive of these needs being fulfilled, learners are likely to grow in intrinsic motivation and maintain participation in learning. Satisfaction of the family can strengthen the sense of belonging and emotional safety, whereas university satisfaction fosters autonomy and competence through offering meaningful academic and social experiences.

Further, Bronfenbrenner's Ecological Systems Theory (1979) emphasizes that human development is affected by various interacting systems, such as the family microsystem and the school or university ecosystem. These environmental elements have an overall effect on the psychological and educational well-being of the students. Blending the two theories gives a full image of how the family and university environment work together in increasing the motivation to learn among students and general well-being.

Methodology

The research utilized quantitative design and cross-sectional survey study approach was applied to examine interrelationships among motivation to learn, university satisfaction, and family satisfaction. All 424 study participants were students, with 212 males and 212 females. Sampling was done at two levels following proportional stratified sampling to have equal representation across subgroups. Multi-stage approach provided high reliability and accuracy for the data collected.

Data were gathered through a four-section self-administered questionnaire grounded on the research variables and demographic profile of respondents. Variable items were all measured using five-point Likert scale in which 1 represented strong disagreement and 5 represented strong agreement. Learning motivation was compared with four dominant dimensions: intrinsic motivation, extrinsic motivation, self-efficacy, and social support. The research used the Academic Motivation Scale (Vallerand *et al.*, 1992) [35] to quantify intrinsic and extrinsic motivation. The Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich and De Groot, 1990) [33] was used to quantify self-efficacy. Social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet *et al.*, 1988) [47].

To match family satisfaction, four areas were assessed that are important: family communication, emotional support, parental involvement, and individual growth support. Family communication was assessed through use of the adaptation of FACES IV (Family Adaptability and Cohesion Evaluation Scales IV) (Olson, 2011) [31]. Emotional support was assessed through use of the adaptation of the Family Environment Scale (Moos & Moos, 2009) [27]. Parent involvement was assessed using the Parent Involvement Scale by Grolnick & Slowiaczek (1994) [15]. Self-development support was assessed using adaptation of Perceived Parental Autonomy Support Scale (P-PASS, Mageau *et al.*, 2015) [26].

Additionally, University Satisfaction Questionnaire was also developed for assessing the overall satisfaction level of the students in higher education. It consisted of four dimensions: academic programs, campus facilities, campus life and campus resources. Academic programs was measured by adapting the Student Satisfaction Inventory (SSI) (Noel-Levitz, 2008) [29]. Campus facilities were measured by using the College Student Satisfaction Questionnaire (CSSQ) (Betz, 1993) [3]. The National Survey of Student Engagement (NSSE) (Kuh, 2003) [18] was adapted to measure campus life and Institutional Performance Survey (Kuh *et al.*, 2005) was adapted to measure campus resources. 200 students were employed on a pilot test to examine item clarity and instrument reliability.

The Cronbach's alpha for every subscale was higher than 0.80, indicating consistent internal consistency. Questionnaires were distributed online in order to get high response rates. Participants were informed of the study purpose and ensured confidentiality and voluntary participation. Analysis of the data was conducted only for participants who provided informed consent. SPSS was utilized in the analysis of the data. Descriptive statistics (frequency distribution, standard deviation, and mean) were utilized in aggregating general trends and demographic variables. Inferential analysis, including multiple regression analysis and Pearson correlation, was utilized in investigating the correlation between learning motivation, university satisfaction, and family satisfaction.

Results

Demographic Profile of the Sample

A total of 424 valid responses were collected and analyzed. The gender distribution of the respondents was perfectly balanced, with 212 males (50%) and 212 females (50%), ensuring equal representation and minimizing potential gender-related bias. With respect to age, the respondents were evenly distributed across four age groups: 18, 19, 20, and 21 years old, each accounting for 25% of the total sample (n = 106). The mean age was 19.5 years (SD = 1.12), indicating that the respondents primarily belonged to the traditional undergraduate age range, which was appropriate for examining university-related learning motivation. In terms of year of study, senior respondents constituted the largest proportion (39.86%, n = 169), followed by sophomores (32.55%, n = 138). Meanwhile, juniors (16.27%, n = 69) and freshmen (11.32%, n = 48) represented smaller proportions.

The overall mean score for learning motivation among respondents was 3.14 (SD = 0.63), indicating a moderate level of motivation. An independent samples t-test was conducted to examine gender differences in learning motivation. Results from Levene's test for equality of variances were not significant (F = 0.08, p = .777), confirming the assumption of homogeneity of variances. Based on Table 1, the analysis revealed a statistically significant difference between male and female respondents, $t(422) = -27.03, p < .001$. Female respondents (M = 3.61, SD = 0.36) reported significantly higher levels of learning motivation compared to male respondents (M = 2.61, SD = 0.40).

Table 1: Learning Motivation by Gender

| Variable | Gender | Mean | Standard Deviation | df | t | p |
|---------------------|--------|------|--------------------|-----|--------|-------|
| Learning motivation | Male | 2.61 | 0.40 | 422 | -27.03 | <.001 |
| | Female | 3.61 | 0.36 | | | |

Additionally, one-way analysis of variance (ANOVA) was employed in analyzing the variation in learning motivation among university students in Sichuan, China, based on different age groups. The test was employed in detecting if there were noteworthy differences among the mean scores of three or more independent groups. In the current study, the respondents' ages ranged from 18 to 21 years and included four distinct levels of study at the university. There were 106 members in each age group for equal sample representation. One-way ANOVA test statistics are presented in Table 2.

Table 2: Learning Motivation by Age

| Variable | Age | Mean | Standard Deviation | F | p |
|---------------------|-----|------|--------------------|-------|-------|
| Learning motivation | 18 | 3.15 | 0.66 | 0.654 | <.001 |
| | 19 | 3.17 | 0.63 | | |
| | 20 | 3.19 | 0.60 | | |
| | 21 | 3.06 | 0.62 | | |

The results in Table 4 indicated little variation in the mean scores of learning motivation among the different age groups. The 20-year-old participants recorded the highest mean score (M = 3.185, SD = 0.60), closely followed by the 19- (M = 3.17, SD = 0.63) and 18-year-old (M = 3.15, SD = 0.66) participants. Participants aged 21 had the lowest mean score (M = 3.06, SD = 0.62). The ANOVA results (F = 0.654, p < .001) revealed that there was a statistically significant difference in learning motivation among the four age groups. The trend in mean scores showed that learning motivation was relatively higher among 19- to 20-year-old respondents, but tended to decline among 21-year-old respondents, perhaps reflecting a gradual decline in motivation as students went higher in academic years.

Along with this, Pearson correlation analysis was conducted for the purpose of examining the interrelationships among the study variables. The results indicated that learning motivation was positively and moderately correlated with family satisfaction (r = .499, p < .01), which means that participants who were more satisfied in their family environment were more inclined to have better academic motivation (Cohen, 1988). Additionally, there was also a strong positive relationship between university satisfaction and learning motivation (r = .650, p < .01), indicating that the more satisfied with the university, the more learning motivation.

Lastly, regression analysis was performed to assess the influence of family satisfaction and university satisfaction on learning motivation in university students. Table 3 displays the summary of the multiple regression model testing the joint effect of family satisfaction and university satisfaction on learning motivation in university students. The model showed high explanatory power, with a multiple correlation coefficient (R = .665) and a coefficient of determination (R² = .443). This revealed that about 44.3% of the variation in learning motivation was accounted for by the joint influences of family and university satisfaction. The .440 adjusted R² value also supported the model stability, stating that the predictive power was still high even after accounting for the number of independent variables. The findings highlight that students' learning motivation is considerably influenced by psychosocial variables in university and family contexts.

Table 3: Summary of Regression Model between Family Satisfaction, University Satisfaction, and Learning Motivation

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .665 ^a | .443 | 0.440 | .468619 |

Note: Predictor variables: (Constant), university satisfaction, family satisfaction.

Table 4 displays the standardized and standardize coefficients for each predictor. University satisfaction emerged as the strongest predictor of learning motivation (β = .909, B = 1.051, t = 12.107, p < .001). This finding indicates that for every one-unit increase in students'

university satisfaction, learning motivation increased by an average of 1.051 units, holding other variables constant. Family satisfaction also demonstrated a statistically significant positive effect on learning motivation ($\beta = .296$, $B = .355$, $t = 3.943$, $p < .001$). Although its effect size was smaller than that of university satisfaction, family satisfaction nonetheless contributed meaningfully to students' motivation, underscoring the continuing relevance of familial emotional support and stability in fostering academic engagement.

Table 4: Regression Coefficients between Family Satisfaction, University Satisfaction, and Learning Motivation

| Model | Unstandardized Coefficients | Standardized Coefficients | | |
|-------------------------|-----------------------------|---------------------------|------|--------|
| (Constant) | B | Std. Error | Beta | t |
| Family satisfaction | 1.418 | .510 | | 2.783 |
| University satisfaction | .355 | .090 | .296 | 3.943 |
| | 1.051 | .087 | .909 | 12.107 |

Note: Dependent variable: learning motivation.

Col-linearity diagnostics were performed to ascertain potential redundancy between the predictors. Both measures yielded a Variance Inflation Factor (VIF) of 4.257, which indicates moderate multidisciplinary. Although this value does suggest some shared variance and is consistent with the prior Pearson correlation ($r = .875$), it does fall short of the critical value of 10 (Hair *et al.*, 2019), thus multidisciplinary did not make the regression coefficients not interpreter. The shared variance is possibly due to comparable constructs involving perceived support, resource accessibility, and emotional well-being that, collectively, influence the academic motivation of students

Discussion

Learning Motivation among University Students in Sichuan, China

Findings indicated that Sichuan university students had a moderate level of learning motivation even though recent studies have established that Sichuan university students and other similar areas have weak or unstable learning motivation states (Wang, 2022; Zhao *et al.*, 2023) [36, 38]. The findings indicate that whereas the majority of the sample showed interest in learning, their motivation was moderated by individual and context effects including family satisfaction, university satisfaction, and background. This finding affirms previous studies underscoring that the motivation towards learning in students at the university level is dependent on internal factors such as self-efficacy, interest inherent; and external factors such as family support, institution climate, social beliefs (Deci & Ryan, 2000; Eccles & Wigfield, 2020) [9, 11, 13]. Within Self-Determination Theory (SDT) (Deci & Ryan, 1985, 2000), this study is emphasizing the role of intrinsic and extrinsic in developing the students' motivation and engagement.

The drivers in question are particularly comprised of autonomy, competence, and relatedness. The more highly satisfied respondents showed higher learning motivation, confirming SDT's hypothesis that climate conditions supporting autonomy enhance intrinsic motivation. But lower family satisfaction respondents were likely to exhibit lower motivation, as evidence proves the required

psychological and emotional support in order to sustain learning drive.

Gender Differences in Learning Motivation

The study found that female university students in Sichuan reported slightly higher learning motivation than male students. The gender effect overall was modest, but statistically significant and consistent with the most recent national findings in China that the female undergraduates are more inclined to outperform males in active learning activities and academic results (Guo, Zhang, & Xie, 2024) [16]. According to Self-Determination Theory, women students typically have greater intrinsic motivation and self-regulated learning tendencies that result in ongoing academic engagement (Schunk & DiBenedetto, 2020; Eccles & Wang, 2019).

Age-Related Differences in Learning Motivation

There were considerable differences among different age groups. Motivation to study peaked among the respondents at the age of 19 to 20 and then dipped at the age of 21. When motivation among students drops as they progress in their studies, the likely reason is owing to more workload, less novelty, and growing professional concerns. Intrinsic motivation is grounded in autonomy, competence, and relatedness according to Self-Determination Theory. Freshmen and juniors, being younger students, would presumably enjoy more freedom and interest in learning. These sentiments will most probably dwindle as students encounter stricter courses of study and other concerns. Jenó *et al.* (2020) observed that students with more autonomy support exhibited high motivation for a long time. Conversely, students who were in stricter academic environments experienced lower motivation as they progressed.

Influence of Family Satisfaction and University Satisfaction on Learning Motivation

The finding was that both university satisfaction and family satisfaction were equally good predictors of learning motivation, albeit with university satisfaction being more direct and stronger. This finding testifies to motivation processes that are triggered by emotional, cognitive, and environmental forces operating at family and institutional levels. There is proof that student satisfaction in universities plays a pivotal role in influencing their motivation for learning and academic engagement (Liang & Ren, 2025; Han *et al.*, 2024) [17, 25]. Perceptions of academic programs, campus facilities, and social integration are determinants. Likewise, family satisfaction, as quantified in terms of communication, emotional support, parental engagement, and fostering of self-development, has been proven to enhance students' intrinsic motivation and academic resilience by creating a safe emotional space (Carranza, 2022; Dinh *et al.*, 2022) [5, 10, 12]. Moreover, parental engagement and emotional bonds were discovered to boost intrinsic and extrinsic motivation among students, suggesting that the family and institutional factors complement each other in shaping the motivation of university students (Nguyen *et al.*, 2023) [28].

According to Bronfenbrenner's Ecological Systems Theory (1979), an individual's development and motivation are shaped by multiple interacting environmental systems ranging from the proximal microsystem (home and

university) to far-off contextual influences. In this case, happiness in the family is a central part of the microsystem directly affecting students' emotional welfare and self-image. Supportive home communication, affective support, and engaged parent participation foster students' psychological safety and intrinsic motivation, providing a firm basis for sustained academic activity (Carranza, 2022; Nguyen *et al.*, 2023) [5, 28].

Conclusion

Academic motivation is a basis of scholarly development, affecting the involvement, persistence, self-regulation, and aspirations of learners. In Chinese universities, where disengagement, mental health issues, and inequalities are worsening, it has been more critical than ever before to gain an understanding of motivation drivers. This study looks into the impact of two basic environmental systems on motivation for university students in Sichuan: the family and the university. Grounded in interdisciplinary theory and empirical investigation, the current study postulates learning motivation as an effect of system type for gender, age, family satisfaction, and university satisfaction. Results acknowledge motivation peaking between the age range of 19-20 years and declining henceforth and thus it is essential to intervene at the right moment at mid-college life, with marginally higher motivation being reported by women students at large, underlining the need for gender-based interventions. University and family satisfaction both emerge as robust, cross-sectional predictors of motivation. Motivation is considerably encouraged by emotional support, positive communication, and parental engagement, while teaching quality, campus facilities, opportunities for personal development, and institutional backing also play a role in ensuring academic engagement. By integrating family and institutional factors into a model of systems, the study demonstrates that motivation is context-dependent and dynamic and is most effectively fostered where university and family systems are in collaboration. These findings contribute to a more nuanced understanding of Chinese higher education student motivation and provide theoretical and empirical support for the development of inclusive, adaptive, and sustainable interventions that create academic engagement and achievement.

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Ethics Compliance

Ethical approval was obtained from the Research Ethics Committee of City University Malaysia.

Data Access Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request. The dataset is not publicly available.

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