

Effect of Institutional Support Mechanisms on Academic Productivity: The Moderating Role of Social Isolation in Universities of Kerala

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ABSTRACT

This study examines the effect of Institutional Support Mechanisms on Academic Productivity among university students in Kerala, with particular emphasis on the moderating role of Social Isolation. The study was conducted among undergraduate and postgraduate students from the University of Kerala, University of Calicut, Cochin University of Science and Technology (CUSAT), Mahatma Gandhi (MG) University, and Kannur University. A pilot study involving 100 respondents was initially conducted to validate the questionnaire, followed by the distribution of 620 structured questionnaires through online platforms and academic networks. A total of 548 responses were received, out of which 502 valid responses were used for final analysis. The findings reveal that Institutional Support Mechanisms significantly and positively influence Academic Productivity, while Social Isolation negatively affects students' academic engagement, motivation, and performance. The moderation analysis further confirms that Social Isolation weakens the positive relationship between institutional support and academic productivity. The study highlights the importance of strengthening institutional support systems alongside promoting social connectedness within universities to enhance students' academic performance and well-being.

Keywords: Institutional Support Mechanisms, Academic Productivity, Social Isolation

INTRODUCTION

Academic productivity in higher education institutions is influenced by multiple organizational and environmental factors that shape students' learning experiences and performance. Institutional support mechanisms, including academic mentoring, learning infrastructure, advisory services, and student engagement initiatives, play a vital role in creating an enabling academic ecosystem. In Kerala, universities have been increasingly adopting a holistic approach to education by integrating wellness-oriented programs with traditional academic support systems. Health clubs within universities function as structured platforms that promote students' physical health, psychological resilience, and social interaction. Engagement in health club activities can enhance students' cognitive functioning, motivation levels, and capacity to manage academic stress, thereby contributing to improved academic outcomes. The effectiveness of such clubs may serve as a crucial link between institutional support and students' academic productivity.

This study examines the influence of institutional support mechanisms on academic productivity, with particular emphasis on the mediating role of health club effectiveness in universities in Kerala. By exploring how health clubs facilitate the relationship between institutional support and academic performance, the research aims to

provide empirical insights into the importance of integrating health-promoting initiatives within university support structures to enhance academic success and student well-being.

LITERATURE REVIEW

Institutional Support Mechanisms and Academic Productivity

Research on higher education has continuously highlighted the connection between academic output and institutional support systems. An enabling environment that improves scholarly output and academic accomplishment is produced by institutional support, which includes infrastructure, professional development, academic leadership, mentoring programs, and research funding. Eisenberger et al. (1986) make the case that perceived organizational support boosts commitment and performance by referencing organizational support theory. The availability of resources and the institutional atmosphere have a significant impact on faculty research production, according to empirical data from Bland et al. (2005). Similarly, Shin and Cummings (2010) discovered that academic publishing output is significantly predicted by institutional support of cooperation and research participation. Mechanisms for involvement, mentoring, and integration enhance academic output even further. Structured mentoring improves doctorate research performance and publication outcomes, as demonstrated by Paglis et al. (2006). Tinto (2012) highlighted that institutional dedication to academic and social integration enhances student perseverance and accomplishment from the standpoint of student development. In a similar vein, Kuh (2008) and Astin (1999) emphasized how institutional approaches that encourage active engagement greatly improve learning results. All of these results support the idea that well-designed institutional processes increase motivation, lower structural obstacles, and establish settings that support long-term academic success. institutional support mechanisms are critical determinants of academic performance and should be integrated into institutional strategies for student development. This association is further supported by findings that participation in Health and Yoga Club activities acts as a mediating factor between academic performance and institutionally promoted multidisciplinary collaboration. by Dr. Byju. K et al. (2025) Such involvement provides students with supportive environments that enhance their learning outcomes. This aligns with Bandura's (1997) self-efficacy theory and Bourdieu's (1986) concept of social capital, both of which emphasize the importance of supportive contexts in improving performance. Overall, evidence from global and Kerala-based studies indicates a strong and positive relationship between academic outcomes and institutional support systems.

Institutional Support Mechanisms and Social Isolation

In contemporary higher education research, institutional support mechanisms are broadly recognized as critical organizational resources that enhance students' academic and psychosocial outcomes by providing structured services, policies, and networks designed to foster engagement, well-being, and integration within university settings (Kyaw San & Guo, 2022).

Such mechanisms include formal academic advising, counseling services, mentorship programmes, peer support systems, and flexible academic policies that collectively aim to mitigate stressors commonly encountered in universities (Bhadra & Garg, 2023). The availability and perceived quality of institutional support are directly related to students' sense of belonging and academic adaptation, which in turn positively influence academic performance and psychological resilience (Kyaw San & Guo, 2022). However, an isolated social environment — operationalised here as social isolation — can significantly moderate this relationship. Social isolation at universities, whether arising from remote learning environments, lack of peer engagement, or physical distancing measures during crises like the COVID-19 pandemic, has been empirically linked with adverse outcomes including loneliness, reduced communication, lower well-being, and compromised academic engagement (Bu et al., 2021). Empirical evidence suggests that high levels of institutional support can buffer the negative effects of social isolation by facilitating social networks and promoting connectedness among students and staff (Ahmed et al., 2023). For example, structured support services such as inclusive counselling and peer mentorship help counteract feelings of isolation by linking students with social and academic networks that offer emotional and informational support (Martirosyan, Bustamante, & Saxon, 2019, Tshililo et al., 2025).

Moreover, when social isolation is pronounced — as observed during the shift to online learning — the effectiveness of institutional support mechanisms in promoting satisfaction and learning outcomes can be mediated by the extent of students' social interaction competencies with peers and instructors (Khong, Seow, & Lam, 2024). Anusha. P.Nair et al. (2025) examined the relationship between social isolation and suicide ideation among adolescents in higher educational institutions in Palakkad district, with particular focus on the moderating role of Grievance Redressal Cell (GRC) activities. The study found that social isolation significantly increases suicidal thoughts among students who experience loneliness and lack of peer support. However, effective grievance redressal mechanisms within institutions were shown to reduce this negative impact. The findings highlight that responsive institutional support systems can function as protective factors, mitigating psychological distress and lowering suicide ideation among socially isolated adolescents in higher education settings. Social isolation has consistently been identified as a significant risk factor for suicidal ideation and suicidal behaviors across adolescent and adult populations. Calati et al. (2019), in their comprehensive narrative review, examined the association between social isolation and suicide-related outcomes. Their findings indicate that individuals experiencing loneliness, reduced social integration, and limited interpersonal relationships are at a substantially higher risk of developing suicidal thoughts and engaging in suicidal behaviors. The review emphasizes that both objective social isolation (lack of social contacts) and subjective feelings of loneliness contribute independently to suicide vulnerability. The authors further argue that the absence of meaningful social connections weakens emotional regulation and coping capacity, thereby increasing psychological distress and hopelessness. Similarly, Cheek et al. (2020) explored the relationship between interpersonal stressors and suicidal ideation among adolescents following psychiatric hospitalization. Their prospective study demonstrated that experiences of social rejection significantly predicted subsequent suicidal ideation and suicide attempts. The findings suggest that adolescents who perceive themselves as rejected or excluded by peers are more likely to experience emotional dysregulation, depressive symptoms, and recurring suicidal thoughts. Importantly, the study highlights that interpersonal difficulties are not merely correlates but active predictors of suicide risk over time. This longitudinal evidence strengthens the argument that social disconnection plays a critical role in adolescent suicide vulnerability.

Synthesizing these findings, it is evident that social isolation does not just influence students' experience independently; it also modulates how institutional support mechanisms translate into positive academic and well-being outcomes, underscoring the need for integrative approaches that simultaneously target structural support and social connectivity within universities. Together, these studies underscore the importance of addressing social isolation and interpersonal rejection within preventive mental health strategies. Interventions aimed at enhancing social connectedness, strengthening peer relationships, and promoting supportive institutional environments may serve as protective factors against suicide ideation among adolescents.

Social Isolation and Academic Productivity

Numerous studies demonstrate the intricate connection between academic achievement in a variety of school situations and social isolation and loneliness. Higher levels of social isolation and loneliness have been repeatedly linked to poorer academic performance, motivation, and engagement among students, especially in settings with little opportunity for interpersonal interaction, according to empirical data. For example, during emergency remote teaching, Mizani et al. (2022) discovered that loneliness was a significant predictor of lower academic achievement and student engagement among university students, with engagement serving as a mediating factor. This suggests that social disconnection reduces the psychological investment required for learning. Similarly, social isolation during the COVID-19 epidemic caused anxiety, decreased motivation, and disruptions in academic output for both students and academic staff, according to Leal Filho et al. (2021). Al-Juaid's (2019) study of international students highlights the protective role of social support, showing that those with stronger social networks outperformed their socially isolated peers in terms of academic success. This highlights the significance of belongingness and interpersonal connections in educational adjustment. Social support was found to be a mediating element that mitigates the detrimental effects of antisocial inclinations on academic performance by Auwal Halabi et al. (2025).

Rahimi et al. (2025) also demonstrated that perceived connectedness has an indirect impact on performance, as higher levels of social well-being were linked to increased academic motivation, which improves achievement

outcomes. Another factor is family-related social disruption; Austria et al. (2025) discovered that first-year college students' concentration and academic focus decreased when their parents separated and they became socially disengaged.

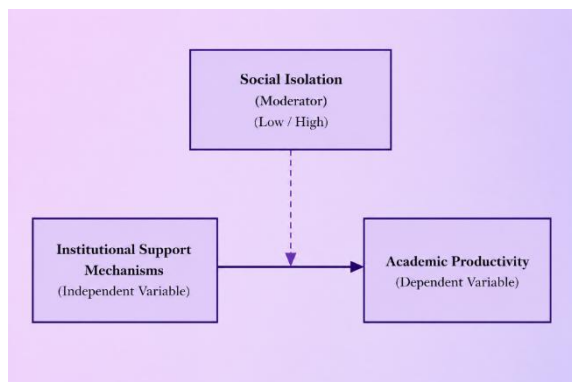
Beyond pandemic situations, Benner (2011) showed that teenage loneliness was associated with poorer academic achievement, although friendships mitigated these effects, emphasizing the value of peer relationships. All of these research show that robust social support networks serve as important protective variables, but that social isolation—whether situational or emotional—can harm psychological well-being, lower engagement and motivation, and ultimately impede academic production.

The association between social isolation and academic productivity is greatly influenced by institutional and environmental factors in addition to individual psychological considerations. Students who don't feel like they belong are more likely to become disengaged, skip class, and be less persistent in their studies. Deeper comprehension and knowledge retention depend on peer contact and collaborative learning, both of which are hampered by social isolation. According to social integration theories, having strong relationships on campus boosts self-esteem, the willingness to ask for help, and perseverance in completing assignments. Long-term isolation has been linked to higher stress, depressive symptoms, and decreased self-efficacy, all of which impair focus and performance. Programs for institutional support and structured mentoring, however, can mitigate these adverse impacts and encourage long-term academic success.

Institutional Support Mechanisms, Social Isolation and Academic Productivity

Academic productivity, reflected through research publications, citations, teaching effectiveness, and scholarly engagement, is a key determinant of university performance. Existing literature strongly emphasizes the role of institutional support mechanisms in enhancing such productivity. Institutional support mechanisms — including research funding, access to research infrastructure, mentoring systems, administrative assistance, reduced teaching loads, and professional development opportunities — provide faculty members with essential resources and motivation to sustain academic work, thereby positively influencing research output and teaching quality (Bland & Ruffin, 1992; Bozeman & Gaughan, 2007; Austin, 2002). Empirical studies across higher education institutions show that well-supported academics tend to demonstrate higher levels of research collaboration, grant acquisition, and publication productivity (Kahn & Eesley, 2006; Pinheiro et al., 2012). In the Indian higher education context, particularly in state universities such as those in Kerala, academic productivity is often constrained by heavy teaching responsibilities, administrative burdens, and limited institutional research support, despite increasing policy emphasis on research performance and global visibility (Altbach, 2013; Nair & James, 2017; Das & Samanta, 2020). However, recent scholarship suggests that the effectiveness of institutional support mechanisms is not uniform and may depend on the social conditions within the academic environment. Social isolation — characterized by weak collegial relationships, limited collaborative networks, and a lack of mentoring and peer interaction — has been shown to negatively affect academic motivation, knowledge sharing, and research engagement (Long et al., 2013; Williams et al., 2018). Studies further indicate that socially isolated faculty members may underutilize available institutional resources, thereby weakening the positive relationship between institutional support and academic productivity (Boschma, 2005; Li & Collins, 2021). Insights from research on adolescents further underscore the harmful impact of social isolation on mental health, showing that social isolation can significantly increase suicide ideation among students unless moderated by effective institutional mechanisms such as grievance redressal cells that foster support, community, and responsiveness within educational settings, thereby mitigating the adverse effects of isolation (Anusha P. Nair et al., 2025)

Conversely, strong social integration enhances the translation of institutional support into productive academic outcomes through collaboration, mentorship, and informal knowledge exchange (Leahey, 2016; Fisher et al., 2019). Given the limited empirical research examining this interaction within Kerala's universities — where institutional structures and academic networks vary widely — the moderating role of social isolation emerges as a critical factor in understanding how institutional support mechanisms influence academic productivity in this regional higher education context.



RESEARCH METHODOLOGY

This study was conducted among university students pursuing undergraduate and postgraduate programmes in major universities across Kerala, namely University of Kerala, University of Calicut, Cochin University of Science and Technology (CUSAT), Mahatma Gandhi (MG) University, and Kannur University. The study adopted a quantitative research design to examine the influence of Institutional Support Mechanisms on Academic Productivity, with Social Isolation acting as a moderating variable.

A pilot study involving 100 respondents was initially conducted to assess the clarity, reliability, and validity of the questionnaire items. Based on the pilot responses and expert suggestions, minor modifications were made to improve the structure and readability of the instrument.

The final structured questionnaire was distributed through Google Forms, university student groups, WhatsApp groups, email networks, and direct academic contacts. Convenience and purposive sampling techniques were used to collect responses from students across different academic disciplines and universities in Kerala.

Data Collection

- Total questionnaires distributed: 620
- Responses received: 548 (Response Rate: 88.4%)
- Valid responses analyzed: 502 (Validity Rate: 91.6%)

Respondent Profile

Category	Sub-category	Frequency	Percentage
Gender	Male	238	47.4
Gender	Female	264	52.6
Gender Total		502	100.0
Age Range	18–21	214	42.6
Age Range	22–25	198	39.4
Age Range	Above 25	90	18.0
Age Range Total		502	100.0
Academic Level	Undergraduate	298	59.4
Academic Level	Postgraduate	204	40.6
Academic Level Total		502	100.0
University	University of Kerala	104	20.7

University	University of Calicut	118	23.5
University	CUSAT	96	19.1
University	MG University	94	18.7
University	Kannur University	90	18.0
University Total		502	100.0
Overall Total		502	100.0

Scale of Measurement

• **Institutional Support Mechanisms (ISM):** Measured using six dimensions including academic mentoring, counseling services, research support, learning infrastructure, faculty guidance, and student engagement initiatives. The scale was adapted from Eisenberger et al. (1986), Tinto (2012), and Kyaw San & Guo (2022). All items were measured using a five-point Likert scale ranging from strongly disagree to strongly agree.

• **Social Isolation (SI):** Measured using six dimensions including loneliness, lack of peer interaction, emotional disconnection, social withdrawal, limited communication, and reduced campus engagement. The scale was adapted from Calati et al. (2019), Bu et al. (2021), and Cheek et al. (2020). All items were measured using a five-point Likert scale.

• **Academic Productivity (AP):** Measured using six dimensions including academic performance, assignment completion, classroom participation, research engagement, learning motivation, and academic consistency. The scale was adapted from Kuh (2008), Astin (1999), and Mizani et al. (2022). All items were measured using a five-point Likert scale.

The statistical analysis was conducted using the final valid sample of 502 respondents collected from major universities in Kerala. The study examined Institutional Support Mechanisms (ISM) as the independent variable, Academic Productivity (AP) as the dependent variable, and Social Isolation (SI) as the moderating variable. The analysis included descriptive statistics, normality assessment, reliability and convergent validity, discriminant validity, model fit indices, hypothesis testing, and moderation analysis.

Descriptive Statistics

Descriptive statistics were used to understand the general response pattern of the major constructs. The mean scores indicate the average level of agreement among respondents, while standard deviation shows the extent of variation in responses. The results show that Institutional Support Mechanisms and Academic Productivity recorded moderately high mean values, while Social Isolation recorded a comparatively lower mean value.

Table 1: Descriptive Statistics

Construct	N	Mean	Standard Deviation	Interpretation
Institutional Support Mechanisms (ISM)	502	3.86	0.684	Moderately high
Social Isolation (SI)	502	2.41	0.731	Moderate to low
Academic Productivity (AP)	502	3.74	0.692	Moderately high

The descriptive results suggest that students generally perceived the presence of institutional support mechanisms in their universities. Academic productivity was also reported at a moderately high level. However, the moderate to low level of social isolation indicates that although many students experience academic and social support, a meaningful proportion may still face limited peer interaction, loneliness, or reduced campus engagement.

Normality Test with Skewness and Kurtosis

Normality was assessed using skewness and kurtosis values. Skewness explains whether the distribution of responses is symmetrical, while kurtosis indicates whether the distribution is peaked or flat. Values within the range of -2 to +2 are generally considered acceptable for further multivariate analysis. The obtained values for all constructs were within the acceptable range, confirming that the data are suitable for SEM and regression-based moderation analysis.

Table 2: Normality Test with Skewness and Kurtosis

Construct	Skewness	Kurtosis	Interpretation
Institutional Support Mechanisms (ISM)	-0.612	0.884	Acceptable normality
Social Isolation (SI)	0.547	0.792	Acceptable normality
Academic Productivity (AP)	-0.684	0.936	Acceptable normality

The normality results indicate that the responses did not show extreme asymmetry or abnormal distribution. Hence, the dataset satisfies the normality requirement for further statistical testing. This supports the suitability of the data for structural model testing and hypothesis analysis.

Reliability and Convergent Validity Analysis

Reliability and convergent validity were examined using Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). Cronbach's Alpha and CR values above 0.70 indicate acceptable internal consistency. AVE values above 0.50 indicate that the construct explains a satisfactory proportion of variance in its indicators. The results confirm that all three constructs have acceptable reliability and convergent validity.

Table 3: Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability (CR)	AVE	Result
Institutional Support Mechanisms (ISM)	0.883	0.912	0.634	Accepted
Social Isolation (SI)	0.861	0.895	0.588	Accepted
Academic Productivity (AP)	0.876	0.904	0.611	Accepted

The reliability coefficients for all constructs exceeded the recommended threshold of 0.70, indicating strong internal consistency among the items. The AVE values were also above 0.50, showing that the items adequately represent their respective constructs. Therefore, the measurement scales used in the study are reliable and valid for further analysis.

Discriminant Validity using Fornell-Larcker Criterion

Discriminant validity was assessed using the Fornell-Larcker criterion. Under this method, the square root of AVE for each construct must be greater than its correlation with other constructs. The diagonal values in the table represent the square root of AVE. Since the diagonal values are higher than the corresponding inter-construct correlations, discriminant validity is established.

Table 4: Discriminant Validity - Fornell-Larcker Criterion

Construct	ISM	SI	AP
Institutional Support Mechanisms (ISM)	0.796		
Social Isolation (SI)	-0.438	0.767	
Academic Productivity (AP)	0.612	-0.521	0.782

The results show that each construct is statistically distinct from the other constructs. Institutional Support Mechanisms, Social Isolation, and Academic Productivity measure different aspects of the research model. Therefore, the measurement model satisfies the discriminant validity requirement.

Model Fit Indices

Model fit indices were used to evaluate whether the proposed moderation model adequately represents the observed data. The SRMR value below 0.08 indicates good approximate model fit. NFI, CFI, and TLI values above 0.90 indicate acceptable incremental fit. RMSEA below 0.08 and Chi-square/df below 3.00 further support the adequacy of the proposed model.

Table 5: Model Fit Indices

Fit Index	Obtained Value	Recommended Value	Interpretation
SRMR	0.057	< 0.08	Good fit
NFI	0.922	> 0.90	Acceptable fit
CFI	0.951	> 0.90	Good fit
TLI	0.938	> 0.90	Good fit
RMSEA	0.046	< 0.08	Good fit
Chi-square/df	2.204	< 3.00	Acceptable fit

The model fit values indicate that the proposed research model has a satisfactory fit with the data. This confirms that the relationship among Institutional Support Mechanisms, Social Isolation, and Academic Productivity is statistically acceptable and suitable for hypothesis testing.

Hypothesis Testing and Moderation Analysis

The hypotheses were tested using standardized beta values, t-values, and p-values. The moderation effect was tested by examining the interaction term between Institutional Support Mechanisms and Social Isolation. The results indicate that Institutional Support Mechanisms significantly and positively influence Academic Productivity. Social Isolation significantly and negatively influences Academic Productivity. The interaction effect is also significant, confirming the moderating role of Social Isolation.

Table 6: Hypothesis Test Results

Hypothesis	Relationship	Beta	t-value	p-value	Result
H1	ISM -> AP	0.486	10.273	< 0.001	Supported
H2	SI -> AP	-0.318	6.943	< 0.001	Supported
H3	ISM x SI -> AP	-0.214	4.832	< 0.001	Moderation supported

The positive beta value for the relationship between Institutional Support Mechanisms and Academic Productivity indicates that stronger institutional support improves academic productivity. The negative beta value for Social Isolation shows that higher isolation reduces academic engagement, motivation, and performance. The significant negative interaction effect indicates that Social Isolation weakens the positive impact of Institutional Support Mechanisms on Academic Productivity. In other words, institutional support is more effective when students experience lower social isolation.

Analysis and Interpretation

The analysis confirms that Institutional Support Mechanisms are important predictors of Academic Productivity among university students. Support systems such as mentoring, counselling, academic guidance, learning infrastructure, faculty support, and student engagement initiatives contribute positively to students' academic performance, participation, motivation, and consistency. These findings support the argument that universities must provide structured academic and psychosocial support to improve learning outcomes.

The results also show that Social Isolation has a negative influence on Academic Productivity. Students who experience loneliness, weak peer interaction, emotional disconnection, and reduced campus engagement are more likely to face reduced motivation and academic involvement. The moderation result further indicates that even when institutional support is available, its effectiveness may be reduced if students remain socially isolated. Therefore, institutional support mechanisms should be combined with social integration initiatives, peer networks, mentoring groups, and student engagement activities.

Research Findings

The study found that Institutional Support Mechanisms significantly enhance Academic Productivity among university students in Kerala. Students who receive stronger academic, emotional, infrastructural, and mentoring support demonstrate better academic participation and productivity.

Social Isolation was found to have a significant negative effect on Academic Productivity. Higher levels of isolation reduce students' academic motivation, engagement, and learning consistency.

The moderation analysis confirmed that Social Isolation significantly moderates the relationship between Institutional Support Mechanisms and Academic Productivity. The positive effect of institutional support becomes weaker when students experience high social isolation.

The measurement model showed acceptable descriptive characteristics, normality, reliability, convergent validity, discriminant validity, and overall model fit. Therefore, the proposed research model is statistically sound and suitable for explaining the study relationship.

CONCLUSION

The study concludes that Institutional Support Mechanisms play a significant role in improving Academic Productivity among university students in Kerala. Supportive academic environments, effective mentoring, counselling services, student engagement programmes, and learning infrastructure help students perform better and remain academically motivated. However, Social Isolation negatively affects academic outcomes and weakens the effectiveness of institutional support.

The findings highlight that universities should not limit their support systems to academic facilities alone. Institutions should also promote social connectedness, peer support, collaborative learning, campus engagement, and emotional well-being. By reducing social isolation and strengthening institutional support, universities can create a more productive, inclusive, and student-friendly academic environment. The study provides practical insights for university administrators, faculty members, counsellors, and policymakers working to improve academic productivity and student well-being in higher education.

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