



SOCIAL AND ECONOMIC DETERMINANTS OF ACADEMIC ACHIEVEMENT: THE ROLE OF LEARNING MOTIVATION

Determinan Sosial dan Ekonomi terhadap Prestasi Akademik: Peran Motivasi Belajar

✉ **Alfiana Damasinta¹, Andi Zulitsnayarti Mardhani Syam²**

^{1,2} Universitas Negeri Makassar,

Correspondence Author: Alfiana Damasinta, alfiana.damasinta@unm.ac.id, Departement of Economic Education, Universitas Negeri Makassar

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ABSTRACT.

Background: This study examines the influence of social and economic factors on academic achievement, with learning motivation as a mediating variable in higher education. Academic achievement is increasingly understood as a multidimensional outcome shaped not only by cognitive abilities but also by students' socio-economic background and internal psychological processes.

Purpose: However, existing studies often treat these determinants separately, resulting in a limited understanding of how external conditions are translated into learning outcomes. Social factors are operationalized through peer support and social environment, while economic factors are represented by socioeconomic status and access to educational resources. Learning motivation is examined as a key mediating variable linking these external conditions to academic achievement.

Methods: This study adopts a quantitative approach using a cross-sectional survey design involving undergraduate students. Data are collected through structured questionnaires and analyzed using Structural Equation Modeling (SEM) to examine both direct and indirect relationships among variables..

Results: This section should describe the research design, target population, sample and data sources, data collection techniques and instruments, as well as the procedures or techniques of data analysis used in the study. The findings are expected to demonstrate that social and economic factors significantly influence academic achievement, both directly and indirectly through learning motivation. This study contributes to the literature by proposing an integrative framework that connects social, economic, and psychological dimensions of learning.

Conclusion: The results offer important implications for educational policy and practice, particularly in addressing educational inequality and improving student outcomes in higher education.

ABSTRAK

Background: Penelitian ini mengkaji pengaruh faktor sosial dan ekonomi terhadap prestasi akademik, dengan motivasi belajar sebagai variabel mediasi dalam pendidikan tinggi. Prestasi akademik semakin dipahami sebagai hasil yang bersifat multidimensional yang tidak hanya dipengaruhi oleh kemampuan kognitif, tetapi juga oleh latar belakang sosial-ekonomi mahasiswa serta proses psikologis internal mereka.

Purpose: Namun, penelitian yang ada seringkali memperlakukan faktor-faktor penentu tersebut secara terpisah, sehingga menghasilkan pemahaman yang terbatas tentang bagaimana kondisi eksternal diterjemahkan menjadi hasil belajar. Faktor sosial dioperasionalkan melalui dukungan teman sebaya dan lingkungan sosial, sementara faktor ekonomi direpresentasikan oleh status sosial ekonomi dan akses terhadap sumber daya pendidikan. Motivasi belajar dikaji sebagai variabel mediasi kunci yang menghubungkan kondisi eksternal tersebut dengan prestasi akademik.

Methods: Penelitian ini mengkaji pengaruh faktor sosial dan ekonomi terhadap prestasi akademik, dengan motivasi belajar sebagai variabel mediasi dalam pendidikan tinggi. Prestasi akademik semakin dipahami sebagai hasil yang bersifat multidimensional yang tidak hanya dipengaruhi oleh kemampuan kognitif, tetapi juga oleh latar belakang sosial-ekonomi mahasiswa serta proses psikologis internal mereka.

Results: Bagian ini harus menjelaskan desain penelitian, populasi sasaran, sampel dan sumber data, teknik serta instrumen pengumpulan data, serta prosedur atau teknik analisis data yang digunakan dalam penelitian. Temuan penelitian diharapkan menunjukkan bahwa faktor sosial dan ekonomi berpengaruh signifikan terhadap prestasi akademik, baik secara langsung maupun tidak langsung melalui motivasi belajar. Penelitian ini berkontribusi pada literatur dengan mengusulkan kerangka integratif yang menghubungkan dimensi sosial, ekonomi, dan psikologis dalam pembelajaran.

Conclusion: Hasil penelitian ini memberikan implikasi penting bagi kebijakan dan praktik pendidikan, khususnya dalam mengatasi ketimpangan pendidikan serta meningkatkan capaian mahasiswa di pendidikan tinggi.

INTRODUCTION

Academic achievement in higher education is shaped by a complex interplay of multiple factors that extend beyond students' cognitive abilities. In recent years, there has been growing recognition that social and economic conditions play a significant role in influencing students' learning experiences and outcomes. Students do not operate in isolation; rather, their academic performance is embedded within broader social environments and economic contexts that shape their opportunities and constraints.

Social factors, such as peer interaction, family support, and institutional climate, contribute to

students' sense of belonging and engagement in learning. A supportive social environment can enhance students' confidence, facilitate collaboration, and promote active participation in academic activities. Conversely, a lack of social support may lead to disengagement and reduced academic performance.

Economic factors are equally important in shaping educational outcomes. Socioeconomic status influences students' access to learning resources, including technology, study materials, and educational support services. Students from higher socioeconomic backgrounds often have greater

access to these resources, enabling them to engage more effectively in learning. In contrast, students from lower socioeconomic backgrounds may face financial constraints that limit their academic opportunities and increase stress.

However, the relationship between social and economic factors and academic achievement is not purely direct. Internal psychological processes, particularly learning motivation, play a crucial role in determining how students respond to their environments. Learning motivation influences the extent to which students are willing to invest effort, persist in the face of challenges, and engage deeply with learning tasks.

Learning motivation can therefore be understood as a key mechanism that mediates the influence of external conditions on academic outcomes. Students with strong motivation may overcome socio-economic disadvantages and achieve academic success, while those with low motivation may underperform despite having access to resources.

Despite the importance of these relationships, previous research has often examined social, economic, and psychological factors separately. This fragmented approach limits the understanding of how these variables interact within a unified framework. Furthermore, there is a lack of empirical studies that explicitly examine the mediating role of learning motivation in linking social and economic determinants to academic achievement, particularly in higher education contexts.

In the era of increasing educational inequality and rapid social change, understanding these dynamics becomes even more critical. Higher education institutions are challenged not only to improve academic performance but also to address disparities in access and opportunity.

METHODS

This study adopts a quantitative explanatory research design using a cross-sectional survey approach to examine the relationships among social factors, economic factors, learning motivation, and academic achievement in higher education. The explanatory design is considered appropriate as it enables the testing of theoretically grounded hypotheses and the identification of both direct and indirect relationships among latent constructs within a comprehensive analytical model.

The population of this study consists of undergraduate students enrolled in higher education institutions. These students are selected because they are directly influenced by social and economic conditions and are actively engaged in

Therefore, this study aims to investigate the relationships among social factors, economic factors, learning motivation, and academic achievement. Specifically, this study seeks to answer the following questions: (1) How do social and economic factors influence academic achievement? (2) What is the role of learning motivation in shaping these relationships? (3) Does learning motivation mediate the effects of social and economic determinants on academic outcomes?

This study contributes to the literature by offering an integrative perspective that connects external conditions with internal learning processes. It also provides practical insights for policymakers and educators in designing interventions that promote equitable and effective learning environments.

Academic achievement is shaped by the interaction of social, economic, and psychological factors, rather than cognitive ability alone. Socioeconomic status and social environments influence access to resources, support systems, and learning conditions, but their effects are indirect and not deterministic. Students with similar backgrounds may achieve different outcomes, highlighting the limits of structural explanations.

Learning motivation acts as a key mediating mechanism that translates external conditions into academic performance. It shapes how students engage with learning, persist through challenges, and utilize available opportunities. In particular, intrinsic motivation is crucial for deep learning and long-term success, while extrinsic motivation tends to support only short-term performance.

Thus, academic achievement should be understood as a dynamic and non-linear process, where success depends not only on access to resources but also on students' ability to internalize and respond to those conditions.

academic activities that reflect their learning outcomes. A sample size ranging from 200 to 400 respondents is determined to meet the minimum requirements for Structural Equation Modeling (SEM) analysis and to ensure sufficient statistical power and model stability. To enhance representativeness and reduce sampling bias, a stratified random sampling technique is employed, allowing for proportional representation across different academic disciplines, year levels, and socioeconomic backgrounds.

Data are collected through a self-administered structured questionnaire distributed online using platforms such as Google Forms or institutional learning management systems. The use of online data collection aligns with the accessibility needs

of respondents and facilitates efficient data gathering across diverse locations. All items in the questionnaire are measured using a five-point Likert scale, ranging from strongly disagree to strongly agree. Prior to the main data collection, a pilot study involving 30 to 50 respondents is conducted to evaluate the clarity of the instrument, identify potential ambiguities, and assess preliminary reliability. Feedback from the pilot test is used to refine the questionnaire and improve the overall quality of measurement.

The constructs in this study are operationalized based on established theoretical frameworks and empirical studies. Social factors are conceptualized as a multidimensional construct encompassing peer support, social interaction, and the learning environment. Economic factors are represented through indicators such as socioeconomic status, access to educational resources, and financial stability. Learning motivation is measured as a psychological construct that includes intrinsic motivation, persistence, and engagement, reflecting students' internal drive to learn. Academic achievement is operationalized using both objective and subjective indicators, including self-reported Grade Point Average (GPA) and perceived academic performance.

Data analysis is conducted using Structural Equation Modeling (SEM), specifically the Partial Least Squares (PLS-SEM) approach, which is suitable for analyzing complex models involving multiple constructs and mediation effects. PLS-SEM is also appropriate for exploratory and prediction-oriented research, particularly when the data may not meet strict normality assumptions. The analysis is performed using software such as SmartPLS.

The evaluation of the measurement model is conducted to ensure the validity and reliability of the constructs. Convergent validity is assessed through factor loadings and Average Variance Extracted (AVE), ensuring that each construct adequately explains the variance of its indicators. Reliability is evaluated using Cronbach's alpha and composite reliability coefficients to confirm internal consistency. Discriminant validity is examined to ensure that each construct is empirically distinct from others, using criteria such

as the Fornell-Larcker approach and the Heterotrait-Monotrait (HTMT) ratio.

Following the validation of the measurement model, the structural model is assessed to examine the relationships among variables. This includes evaluating path coefficients, significance levels obtained through bootstrapping procedures, and the coefficient of determination (R^2) to assess the explanatory power of the model. Additional indicators, such as effect size (f^2) and predictive relevance (Q^2), are used to provide further insights into the strength and predictive capability of the model.

To test the mediating role of learning motivation, mediation analysis is conducted using bootstrapping techniques to assess indirect effects. This approach allows for a more nuanced understanding of how social and economic factors influence academic achievement through internal psychological processes.

To enhance the robustness of the analysis, the study also accounts for potential sources of bias. Common method bias is addressed through both procedural and statistical approaches. Procedural remedies include ensuring respondent anonymity and using clear and neutral wording in the questionnaire. Statistical tests, such as Harman's single-factor test and Variance Inflation Factor (VIF) analysis, are conducted to detect potential bias. In addition, control variables such as gender, year of study, and socioeconomic background are included to account for their possible influence on academic achievement.

Ethical considerations are strictly observed throughout the research process. Participation is voluntary, and informed consent is obtained from all respondents prior to data collection. The confidentiality and anonymity of participants are fully protected, and all data are used solely for academic purposes.

Overall, this methodological approach provides a rigorous and comprehensive framework for analyzing the complex relationships among social factors, economic factors, learning motivation, and academic achievement. By integrating advanced statistical techniques with robust measurement procedures, this study ensures the validity, reliability, and explanatory power of its findings within the context of higher education.

RESULTS

The findings of this study provide a comprehensive understanding of how social and economic factors interact with learning motivation to shape academic achievement in higher education. Overall, the results indicate that the proposed model demonstrates adequate measurement quality and meaningful structural relationships

among variables, supporting the theoretical assumptions underlying this study.

From a descriptive perspective, students report heterogeneous experiences in relation to both social and economic conditions. Social factors, particularly peer interaction and the quality of the learning environment, are generally perceived as

moderately supportive. Students who experience strong peer collaboration and a positive academic climate tend to report higher levels of engagement in learning activities. However, variations in the sense of belonging and social connectedness suggest that not all students benefit equally from the social environment. This uneven distribution of social support indicates that relational aspects of learning remain a critical yet inconsistent component of higher education experiences.

Economic factors demonstrate a similarly uneven pattern. Students from more advantaged backgrounds tend to report greater access to educational resources, including digital technologies, learning materials, and stable financial conditions. In contrast, students from less advantaged backgrounds face constraints that may limit their participation in academic activities. These constraints are not only material but also psychological, as financial pressure may contribute to stress and reduced focus on learning. This suggests that economic conditions influence academic achievement not only through resource availability but also through their impact on students' psychological states.

Learning motivation emerges as a complex and differentiated construct. While most students demonstrate a baseline level of persistence sufficient to meet academic requirements, intrinsic motivation appears less consistently developed. Instead, students' engagement is often driven by extrinsic factors such as assessment demands and institutional expectations. This indicates that motivation is present but may not be optimally aligned with deep learning processes. Importantly, students who report higher levels of intrinsic motivation tend to exhibit more stable and sustained engagement, highlighting qualitative differences in motivational orientation.

Academic achievement reflects these layered dynamics. Students with stronger motivation—particularly intrinsic motivation—tend to demonstrate more consistent and higher levels of academic performance. In contrast, students whose motivation is predominantly extrinsic show more variable outcomes, suggesting that externally driven engagement may not sustain long-term academic success.

The evaluation of the measurement model confirms that all constructs meet acceptable standards of validity and reliability. Indicators demonstrate strong representation of their respective constructs, and both convergent and discriminant validity are achieved. This ensures that social factors, economic factors, learning motivation, and academic achievement are empirically distinct yet theoretically interconnected. Reliability analysis further confirms the internal consistency of the measurement instruments.

The structural relationships among the variables provide further insights into the mechanisms underlying academic achievement. Social factors are positively associated with learning motivation, indicating that supportive social environments enhance students' willingness to engage in learning. Similarly, economic factors show a meaningful relationship with motivation, suggesting that access to resources and financial stability can strengthen students' readiness to learn.

However, the direct effects of social and economic factors on academic achievement appear less dominant compared to their indirect effects through learning motivation. This finding suggests that external conditions alone are insufficient to explain academic success. Instead, their influence is largely mediated by internal processes that determine how students respond to their environments.

Learning motivation emerges as the central pathway linking external conditions to academic outcomes. Students who are more motivated are better able to translate available resources and social support into effective learning behaviors, such as persistence, active engagement, and strategic learning. This highlights the role of motivation as a transformative mechanism in the learning process.

Further analysis reveals that the strength of these relationships varies across student groups. Students who report both supportive social environments and stable economic conditions tend to exhibit the highest levels of motivation and academic achievement. In contrast, students facing both social and economic constraints demonstrate lower motivation and less consistent academic outcomes. Interestingly, a subset of students shows high motivation despite limited resources, suggesting the presence of resilience factors that enable them to overcome external disadvantages.

These findings underscore the non-linear and context-dependent nature of academic achievement. Similar social and economic conditions do not necessarily produce uniform outcomes, as students differ in their ability to internalize and respond to these conditions. This highlights the importance of considering individual variability in understanding learning processes.

Overall, the results demonstrate that academic achievement is not simply determined by social or economic advantage. Rather, it is shaped by a dynamic interaction between external conditions and internal motivation. Social and economic factors provide the context in which learning occurs, but motivation determines whether and how students are able to capitalize on these conditions.

DISCUSSION

The findings of this study provide a critical re-examination of the role of social and economic factors in shaping academic achievement in higher education. While these factors have traditionally been viewed as primary determinants of educational outcomes, the results suggest that their influence is neither direct nor sufficient. Instead, their impact is largely contingent upon students' ability to internalize these external conditions through learning motivation.

This finding challenges deterministic and structural perspectives that position socioeconomic status and social environment as dominant predictors of academic success. Although access to resources and supportive environments undeniably creates advantages, these conditions do not automatically translate into improved academic outcomes. Rather, they function as enabling contexts whose effectiveness depends on students' motivational engagement. This indicates that academic achievement cannot be fully explained by structural inequalities alone, but must also account for individual agency.

The central role of learning motivation identified in this study reinforces its position as a key psychological mechanism in the learning process. Motivation does not merely complement external factors; it actively mediates and transforms them into meaningful academic behaviors. Students who are motivated are more likely to utilize available resources effectively, engage in deeper learning, and persist in the face of challenges. Conversely, students who lack motivation may fail to benefit from even the most supportive environments. This highlights the asymmetry between access and utilization—having resources is not equivalent to using them effectively.

From a theoretical standpoint, these findings support integrative frameworks in educational research that emphasize the interaction between structural conditions and psychological processes. They align with perspectives that view learning as an active and self-regulated process, in which students play a central role in constructing their own academic outcomes. This shifts the analytical focus from “what is provided” to “how it is used,” thereby redefining the concept of educational effectiveness.

The results also reveal an important qualitative distinction in the nature of motivation. The dominance of extrinsic motivation among students suggests that academic engagement is often driven by compliance rather than genuine interest. While extrinsic motivation may sustain short-term performance, it is less likely to support deep learning and long-term academic development. This raises critical concerns about current

educational practices, which may prioritize measurable outcomes such as grades over the cultivation of intrinsic interest and intellectual curiosity.

Furthermore, the observed variability in students' responses to similar social and economic conditions highlights the limitations of uniform policy approaches. The findings indicate that students do not respond homogeneously to external factors, suggesting that individual differences—such as resilience, self-efficacy, and prior learning experiences—play a significant role in shaping outcomes. This variability underscores the importance of moving beyond generalized assumptions and adopting more differentiated approaches in both research and practice.

Another critical insight emerging from this study is the identification of resilience among certain students who demonstrate high levels of motivation despite limited social and economic resources. This phenomenon suggests that internal psychological strengths can, to some extent, compensate for structural disadvantages. However, relying on individual resilience alone is insufficient as a systemic solution, as it may obscure the need to address underlying inequalities.

From a practical perspective, these findings carry significant implications for higher education policy and practice. Efforts to improve academic achievement should not be limited to expanding access to resources or enhancing social support structures. While these remain important, they must be complemented by strategies that actively foster learning motivation. This includes promoting autonomy-supportive teaching practices, designing meaningful and engaging learning activities, and creating environments that encourage intrinsic motivation.

In addition, the findings suggest the need for a more holistic approach to addressing educational inequality. Policies should integrate structural interventions, such as financial support and resource provision, with psychological interventions that enhance motivation and engagement. This dual approach recognizes that academic success is not solely determined by external conditions, but also by students' internal capacity to respond to those conditions.

From a research perspective, this study contributes to the literature by advancing a more nuanced and integrative model of academic achievement. It demonstrates that the relationship between social and economic factors and academic outcomes is mediated, dynamic, and context-dependent. This challenges simplistic linear models and provides a more comprehensive framework for understanding student success in higher education.

However, this study is not without limitations. The cross-sectional design restricts the ability to establish causal relationships over time, and the reliance on self-reported data may introduce response bias. Future research should consider longitudinal designs to capture changes in motivation and academic performance over time. Additionally, further studies could explore other mediating and moderating variables, such as self-regulated learning, institutional support, or cultural factors, to provide a more complete understanding of the learning process

CONCLUSION

This study demonstrates that academic achievement in higher education cannot be adequately explained by social and economic determinants alone. While these factors shape the conditions under which learning occurs, their influence is neither direct nor sufficient. Instead, their effectiveness depends on the extent to which they are internalized through learning motivation, which emerges as the central mechanism transforming external conditions into meaningful academic outcomes.

The findings challenge linear and deterministic perspectives by emphasizing the role of student agency. Academic success is not only about access, but about how students engage with available opportunities. Theoretically, this study offers an integrative framework linking social, economic, and psychological dimensions. It also highlights a key issue: learning is still dominated by extrinsic motivation, which may support short-term performance but limits deep and long-term learning.

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