



## Research Article

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# Environmental and Personal Factors Affecting Academic Performance: A Case Study of Generation Z Students

Vo Thi Nhu Thao

Faculty of Business Administration, HUTECH University

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**Abstract:** Based on Social Learning Theory and Social Cognitive Theory, this study integrates these frameworks to identify key determinants of Generation Z students' academic performance. The finding reveals two main groups of factors: environmental (social media and artificial intelligence) and personal (self-efficacy, motivation, and emotional intelligence). A review of prior theoretical and empirical studies indicates that these factors positively influence academic outcomes. The study highlights the importance of technology-enhanced learning environments in shaping student performance. It suggests that families and educational institutions should promote the controlled and effective use of technology. Additionally, fostering a healthy communication culture can enhance student engagement and learning enthusiasm, thereby improving academic performance.

**Keywords:** Environment factors, personal factors, academic performance, generation Z

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## INTRODUCTION

In the context of rapid digital transformation and globalization, generation Z students have emerged as the dominant learning cohort in higher education institutions. According to Resolution No. 01/NQ-CP issued on January 8, 2025, the Vietnamese government set a target of achieving 220 university students per 10,000 citizens by 2025, aiming to expand higher education enrollment and enhance the quality of human resources nationwide.

Research by Stillman and Stillman (2017) suggests that generation Z learners exhibit increasing independence in their learning behaviors, while also relying heavily on digital resources and social media platforms for academic support. These characteristics present both opportunities and challenges in improving learning effectiveness and overall educational quality. Academic performance serves as a critical indicator of student learning outcomes and institutional effectiveness. Therefore, the research topic with title "Environmental and Personal Factors Affecting Academic Performance: A Case Study of Generation Z Students" is the significant importance in enhancing learning efficiency within modern educational environments.

## THEORETICAL FRAMEWORK AND RESEARCH METHODOLOGY

### Research methodology

This study adopts a qualitative research approach combined with a comprehensive literature review to develop a conceptual model of factors influencing the academic performance of Generation Z students. Secondary data includes previously published studies relevant to the study, then the author conducts a comprehensive review and analysis of prior studies related to Social Learning Theory and Social Cognitive Theory to establish the theoretical foundation and develop the proposed research model. Additionally, theoretical synthesis and systematization methods are employed to clarify the relationships among variables and to formulate research hypotheses.

### Theoretical framework

The Social Learning Theory proposed by Albert Bandura (1969) is employed to explain the relationship between social media, artificial intelligence (AI), and both academic performance and mental health. This theory posits that learning occurs through social interaction and is shaped by environmental influences, peers, and individual characteristics. The rapid advancement of AI, particularly ChatGPT platforms—has contributed to the personalization of learning processes and enhanced knowledge acquisition. Both AI and social media expand the scope of learning environments and improve learning efficiency and educational experiences.

Subsequently, Albert Bandura (1986) developed the Social Cognitive Theory, which is applied to explain learners' academic outcomes and

performance through the reciprocal interaction among personal, behavioral, and environmental factors. Personal factors, particularly self-efficacy, have a direct influence on learners' effort and persistence in their studies. Behavioral factors are reflected in learning

strategies, levels of engagement, and students' capacity for self-regulation. Environmental factors encompass learning conditions, lecturers, peers, and the technological context, all of which may either facilitate or reduce the learning process.

**Table 1. The review of research findings from studies on academic performance.**

No.	Author	Title	Research findings
1	Fang và cộng sự (2019)	Social Media Usage and Tertiary Students' Academic Performance: Examining the Influences of Academic Self-Efficacy and Innovation Characteristics	The results indicate that the use of social media for learning purposes is positively associated with academic performance. Academic self-efficacy also has an impact on academic performance.
2	Chang Y-C and Tsai Y-T (2022)	The Effect of University Students' Emotional Intelligence, Learning Motivation and Self-Efficacy on Their Academic Achievement—Online English Courses	Students' emotional intelligence has a direct and positive impact on their learning motivation and self-efficacy. Therefore, learning motivation and self-efficacy play a pivotal role in the relationship between emotional intelligence (EI) and academic performance.
3	Shuai Liu và cộng sự (2022)	Social media-based collaborative learning effects on student performance / learner performance with moderating role or academic self-efficacy	Students' academic self-efficacy plays a significant moderating role in the relationship between social media-based collaborative learning and learning performance.
4	Luo và cộng sự (2023)	The Mediating Role of Learning Engagement Between Self-Efficacy and Academic Achievement Among Chinese College Students	The study emphasizes the important role of academic self-efficacy as a mediating variable that further enhances students' academic performance. Nghiên cứu nhấn mạnh vai trò quan trọng của tự hiệu quả học tập như một biến trung gian giúp nâng cao hơn nữa kết quả học tập của sinh viên.
5	Shahzad và cộng sự (2024)	Artificial intelligence and social media on academic performance and mental well-being: Student perceptions of positive impact in the age of smart learning	The results indicate that artificial intelligence and computational science have a positive impact on learners' academic performance, while also enhancing their positive attitudes toward learning and learning motivation, particularly in STEM fields (Science, Technology, Engineering, and Mathematics).
6	Shengyao và cộng sự (2024)	Emotional intelligence impact on academic achievement and psychological well-being among university students: the mediating role of positive psychological characteristics	Emotional intelligence, motivation, and academic self-efficacy have a positive impact on academic performance.

(Source: The author proposes)

**Environmental and Personal Factors Affect Academic Performance and Hypothesis**

**Environmental factors**

**Social media**

According to Zhao (2023), social media is defined as online platforms that enable the creation, dissemination, and interaction with user-generated content within virtual communities. Khan (2017) pointed out that social media platforms can serve as channels that

facilitate students' engagement in problem-solving activities and interactions with peers for academic purposes. Through these platforms, students are able to access information more proactively and engage more actively in their learning process.

Therefore, hypothesis H1 is proposed: social media has a positive effect on the academic performance of generation Z students.

### Artificial intelligence (AI)

Gong (2021) displays that artificial intelligence (AI) involves the design of algorithms and computational systems capable of simulating human cognitive functions such as reasoning, problem-solving, and pattern recognition. Yu (2023) and Dimitriadou (2023) confirm that the integration of generative AI tools such as Chat GPT into educational systems creates significant opportunities to enhance academic performance—particularly through personalized learning experiences and tailored instructional design that align with individual student learning styles, thereby motivating students to master knowledge more effectively.

Accordingly, hypothesis H2 is proposed: Artificial intelligence (AI) has a positive impact on the academic performance of generation Z students.

### Personal factors

#### Motivation

Motivation is defined as the capacity through which individuals can encourage themselves and others to perform a particular behavior or a sequence of behaviors, thereby enabling the achievement of significant accomplishments (Rahim and Psenicka, 2002). Zimmerman (2000) argues that motivation is a core factor associated with academic performance.

Accordingly, hypothesis H3 is proposed: Motivation has a positive impact on the academic performance of Generation Z students.

#### Emotional intelligence

Emotional intelligence influences individuals' self-efficacy through causal reasoning and also affects important job-related outcomes (Gundlach *et al.*, 2003). Zhou *et al.* (2024) emphasize that emotional intelligence

contributes to improving students' academic performance.

Accordingly, hypothesis H4 is proposed: Emotional intelligence has a positive impact on the academic performance of Generation Z students.

#### Self-efficacy

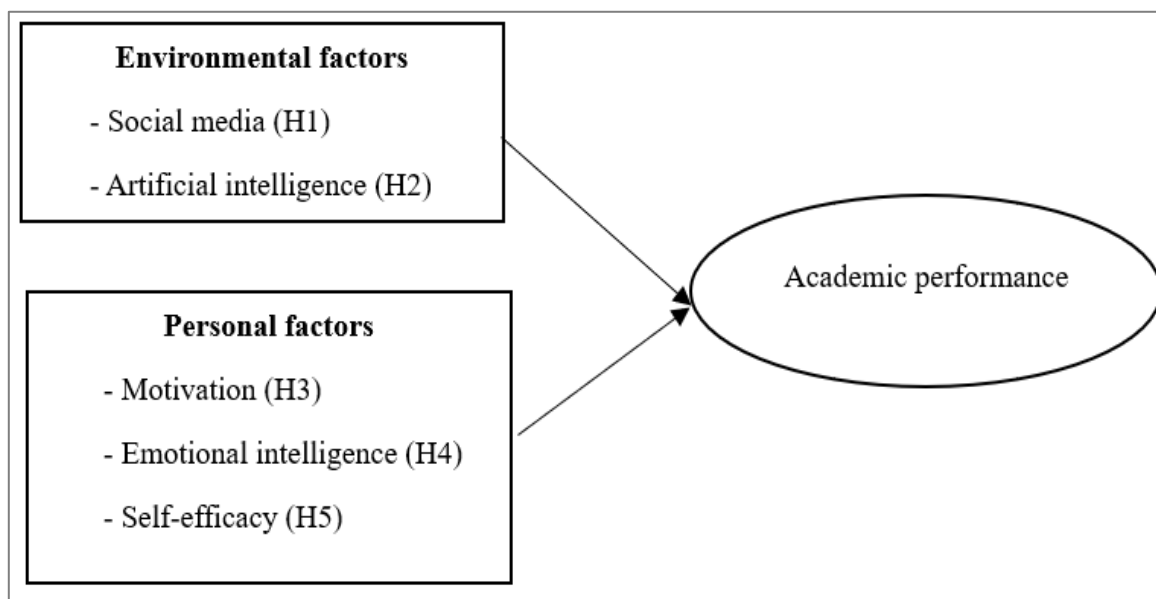
Bandura (1997) defines self-efficacy as individuals' belief in their capability to organize and execute actions required to achieve desired outcomes and accomplishments. Self-efficacy plays a crucial role in human achievement, attitudes, and performance (Bandura, 1997; Kirk *et al.*, 2008). Subsequently, Doménech-Betoret *et al.* (2017) emphasize that self-efficacy has a direct impact on students' academic performance.

Accordingly, hypothesis H5 is proposed: self-efficacy has a positive impact on the academic performance of generation Z students.

#### Academic performance

Steinmayr *et al.* (2014) argue that academic performance reflects the outcomes achieved, indicating the extent to which an individual has accomplished specific goals, which are considered central to activities within educational settings. Rubiano and Martínez (2024) suggest that academic performance can be viewed as a set of actions undertaken by learners to achieve their learning objectives.

In summary, academic performance is understood as an indicator reflecting the outcomes of the learning process, representing the degree to which educational goals, which typically assessed through criteria such as grades and academic results.



**Figure 1: Proposed model**  
(Source: The author proposes)

## RESULT AND DISCUSSION

The study identifies two groups of factors influencing the academic performance of generation Z students in the era of comprehensive digitalization, namely environmental factors and personal factors, both of which are closely associated with students' academic outcomes. Environmental factors include artificial intelligence (AI) and social media, which exert strong influences on the academic performance of generation Z students in the context of widespread digital transformation. At the same time, personal factors including self-efficacy, motivation, and emotional intelligence have profound effects on their academic performance.

### Theoretical contribution

The study reinforces the theoretical foundations of Social Learning Theory (SLT) and Social Cognitive Theory (SCT) in affirming that both environmental and individual factors influence students' academic performance. Accordingly, the study develops a comprehensive and specific model to explain the academic performance of generation Z students.

Compared to the original foundational theories, which broadly address general categories of individual or environmental factors, the proposed model incorporates specific variables within each of these groups. The novelty of this research lies in the simultaneous integration of these factors within a unified theoretical framework, rather than examining each group of factors separately as in previous studies.

As a result, the model provides a clearer explanation of the determinants of students' academic performance and establishes a foundation for future research on student learning outcomes, particularly among generation Z, contributing to the enhancement of human resource quality in the future.

### Practical implications

In practice, the study provides several implications for educational institutions to place greater emphasis on improving the academic performance of generation Z students. First, attention should be given to the integration of AI into teaching and learning tools, while encouraging students to participate in forums and study groups on social media to share knowledge. This enables students to leverage technology and social media, making learning more engaging and beneficial compared to traditional methods.

In addition, both schools and families should encourage and motivate students to maintain a positive mindset in all learning situations, while placing greater emphasis on enhancing students' communication and interaction skills through group activities and outdoor programs organized by educational institutions. Schools should also focus on strengthening communication and connections with students, as well as fostering a

collaborative, equitable, and sharing-oriented cultural environment.

These efforts will help students feel more confident and motivated to actively participate in classroom activities, thereby leading to a clear improvement in their academic performance.

## CONCLUSION

Based on Social Learning Theory and Social Cognitive Theory, the study identifies factors influencing the academic performance of generation Z students by reinforcing and elaborating the theoretical model. Two main groups of factors comprise environmental and personal factors. The study specifies environmental factors including artificial intelligence (AI) and social media, while personal factors comprise self-efficacy, motivation, and emotional intelligence.

The findings help clarify the determinants of generation Z students' academic performance and provide a scientific basis for proposing policies and solutions to improve teaching quality in educational institutions, as well as family support in fostering a strong and capable young workforce for the future.

However, the study still has several limitations. First, the model remains at the stage of proposing a theoretical framework and has not yet been empirically tested. Second, it does not comprehensively consider other potential factors influencing academic performance. Therefore, future research should expand the model by incorporating additional variables and conduct empirical testing to evaluate the feasibility of the proposed theoretical model.

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