



Opportunities, Challenges, and Strategies in the Academic Transition to Higher Education After Grade 12: A Literature Review

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Opportunities, Challenges, and Strategies in the Academic Transition to Higher Education After Grade 12: A Literature Review

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ABSTRACT

Background: The transition from high school to higher education is a pivotal milestone that significantly influences students' careers, academic growth, and personal development. However, many students struggle with academic stress, financial challenges, and adjusting to new learning environments. **Objective:** This study aims to provide a comprehensive review of the opportunities, challenges, and strategies involved in the academic transition to higher education after Grade 12, with a focus on how students can be supported through this process to ensure a smooth and successful transition. **Method:** A literature review methodology was employed, analyzing 103 scholarly articles published between 2020 and 2025. The review synthesized findings from various studies on academic transition, focusing on opportunities for career development, challenges such as financial stress and ICT limitations, and strategies for overcoming these challenges. **Result:** The review revealed that the transition provides opportunities for career development, digital literacy, and social networking. However, students face challenges including financial stress, academic workload, and adjustment difficulties. Effective strategies identified include enhancing self-regulation, ICT skills, and parental engagement. **Conclusion:** This study underscores the importance of adopting a comprehensive approach to supporting students during their transition to higher education. By addressing both opportunities and challenges and implementing targeted strategies, institutions can better facilitate students' academic success and well-being. **Originality/Value:** This review article offers a comprehensive conceptual and integrative contribution to the field of higher education and academic transition counseling by synthesizing the evolving literature regarding the interplay among career development opportunities, psychosocial-financial adaptation challenges, and student readiness strategies following Grade 12, which have remained underexplored within a unified framework. This inquiry maps current theoretical and methodological gaps while serving as a strategic reference that contributes to establishing a holistic conceptual framework for academic transition, guiding future research agendas, and shaping institutional policy on first-year student support systems.

1. INTRODUCTION

Grade 12 is widely recognized as the final stage of high school and a crucial period for students to overcome (Kiak et al., 2024). Grade 12 students must make essential decisions that will influence their future outlook, including their academic transition to higher education (Kiak et al., 2024). Several studies have shown that pursuing higher education serves as a significant bridge to develop competencies, gain more opportunities, and build capacity to handle diverse challenges (Lei et al., 2020; Trigueros et al., 2020; Mulaudzi, 2023). As noted by Lei et al. (2020), the transition from high school to higher education is not a straightforward movement, as it requires students to strengthen and develop their self-reliance in managing finances, accommodations, catering, and enhancing academic performance compared to their high school experience.

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Educational mobility to higher education is not just an academic movement; it is a significant stage in enhancing students' futures, such as improving social life, strengthening independence, and increasing responsibilities (Trigueros et al., 2020). According to Mulaudzi (2023), academic transformation from high school to university is a pivotal step forward for students to enhance their lifestyles in both educational and personal development. For instance, numerous studies have found that transitioning to higher education after completing high school is successful (Abd Rahim & Hussien, 2022; Ungureanu, 2025; Freire et al., 2022). A study by Abd Rahim and Hussien (2022) investigated first-year students in Malaysia, showing that obtaining a higher education offers secure future employment opportunities, including a dreamed career, a satisfied position, and a well-paid occupation. The transition from secondary education to higher education presents both significant opportunities and challenges for students. On one hand, it offers the opportunity for personal growth, academic advancement, and the development of specialized skills that are crucial for future careers. Higher education provides an environment that fosters independence, critical thinking, and exposure to diverse ideas, which enhances intellectual and social development. However, this transition is also accompanied by challenges, such as adapting to a new academic rigor, managing increased personal responsibility, and coping with feelings of isolation or stress. Students may face difficulties in time management, adjusting to the demands of university-level coursework, and integrating into new social environments. To navigate these challenges successfully, strategies such as effective academic planning, seeking support from faculty and peers, and utilizing available resources, including counseling services and study groups, can be instrumental. By addressing these challenges proactively, students can maximize their opportunities for success in higher education and beyond.

The research problem addressed in this study revolves around the insufficient and fragmented understanding of the academic transition to higher education after grade 12. While previous studies have explored individual opportunities, challenges, and strategies, there is a lack of comprehensive analysis that integrates these components into a unified framework. The opportunities for students, such as shaping career aspirations and building professional competence, are often overshadowed by significant challenges, including ICT barriers, financial constraints, academic stress, and adjustment difficulties. Without effective strategies to address these challenges, students' transitions may be hindered, which can impact their academic success and overall well-being. This study aims to bridge the gap by synthesizing existing literature to provide a comprehensive view of the opportunities, challenges, and strategies involved in the academic transition to higher education, offering insights for future research and institutional improvement.

Beyond its potential benefits, academic transition leaves considerable challenges for students to confront. According to Ungureanu (2025), a study was conducted with first-year students in Romania, revealing that they face various obstacles, including knowledge management and learning strategies, the value and utility of competence, and knowledge as a process of personal growth. At the same time, another investigation by Freire et al. (2022) suggests that pursuing a degree at university requires effective strategies to handle the diverse barriers. The findings demonstrate that undergraduate students in Spain employed coping strategies to overcome obstacles and enhance their self-efficacy.

Although previous studies have investigated the opportunities, challenges, and strategies related to the transition from high school to higher education, these explorations have mainly been conducted separately and in restricted contexts. There is a lack of sufficient analysis that examines the transition experience jointly from a unified dimension, including opportunities, challenges, and strategies to formulate the transition after Grade 12. This critical gap highlighted the need for rigorous analysis that incorporates findings from various contexts, thereby providing in-depth knowledge into how students can be virtually directed and supported during this significant academic transition.

The literature gap analysis reveals a significant lack of comprehensive studies that simultaneously address the opportunities, challenges, and strategies involved in the academic transition to higher education. While various studies have explored each of these components individually, there is a need for a unified and in-depth analysis that integrates them. Existing research has primarily focused on the individual aspects of academic transition, including opportunities for career development and digital literacy, as well as challenges such as financial strain and academic stress. However, there is a lack of research that explores how these opportunities and challenges interact and how effective strategies can be implemented to navigate the academic transition successfully. This gap in the literature highlights the need for more comprehensive studies that integrate these elements, providing a more cohesive framework to guide students and institutions in navigating the complexities of academic transition, particularly in the context of evolving educational environments.

This study aims to contribute to the existing literature by examining the key dimensions within a single framework. It aims to identify key aspects of these transitional patterns, including opportunities, challenges, and practical

strategies for addressing them. Additionally, the study will utilize diverse existing research to support and provide a comprehensive review. This review begins by outlining the methodology employed. Following that, it discusses the opportunities associated with the academic transition to higher education. The study also synthesizes the challenges of this transformation and demonstrates effective strategies for overcoming these obstacles. The article concludes with recommendations for future research.

2. METHOD

2.1 Research Design

This study adopted a literature review and document analysis as the research framework. According to [Paré et al. \(2015\)](#), a literature review is a scientific approach that provides an insightful analysis of relevant knowledge on a particular subject by identifying, determining, unifying, and interpreting available scholarly documents. It integrates all relevant concepts beyond individual findings into a cohesive whole, connecting various studies and offering a structural investigation within a broader theoretical perspective. Additionally, document analysis is a well-defined process for identifying, selecting, analyzing, and presenting existing documents to gain comprehensive insights, as well as updating novel designs and relevant documents ([Salminen et al., 1997](#)). The rationale for using a literature review on the topic "Opportunities, Challenges, and Strategies in the Academic Transition to Higher Education After Grade 12" is to identify, examine, and summarize the findings related to students' experiences transitioning from secondary education to higher education. A literature review enables the researcher to gain a comprehensive understanding of the factors that influence academic transition, including opportunities for personal development and academic advancement, as well as the challenges faced by incoming university students, such as adjusting to more complex curricula, improving time management, and adapting to changes in social life. Additionally, the literature review helps identify various strategies that have proven effective in assisting students with this transition, such as more independent learning techniques, support from campus services, and the enhancement of social and emotional skills. By conducting a literature review, researchers can draw conclusions based on previous studies, providing valuable insights and recommendations that can help students navigate their transition to higher education more smoothly and effectively.

2.2 Study Object

The objective of this research is to examine the existing literature on the opportunities, challenges, and strategies involved in the academic transition to higher education. This study aims to explore, examine, and draw a comprehensive conclusion from various reliable, relevant, and scholarly documents under the central theme of academic transition.

2.3 Inclusion and Exclusion Criteria

The inclusion criteria were established to ensure consistency, relevance, and quality in the selection of scholarly documents while maintaining a well-structured and holistic analysis. These criteria are outlined as follows: 1) Scholarly documents (academic journals, conferences, or institutional publications); 2) Focus on high school, higher education, or educational fields; 3) Published in English; 4) Published between 2020 and 2025; 5) Sources from Google Scholar, Elsevier, ResearchGate, or PubMed.

2.4 Data Screening

Based on the inclusion criteria, a total of 105 articles were examined, of which 103 were included in the review, while two articles were excluded due to their focus on methodology. The selected articles primarily focused on educational contexts at both high school and higher education levels, ensuring that the knowledge shared was consistent and applicable to the research questions.

2.5 Data Analysis

The data analysis was carried out by utilizing a search strategy that involved key terms such as "High school," "Higher education," "Opportunities," "Challenges," "Strategies," and the publication range "2020–2025." Academic databases, including Google Scholar, Elsevier, ResearchGate, and PubMed, were used to gather the relevant documents. The findings of this study were derived from the existing literature to provide valuable insights and address the three guiding research questions: 1) What are the significant opportunities available to students pursuing higher education?; 2) What are the significant challenges hindering students' academic transition to higher education?; 3) What practical strategies do students implement during their academic transition to higher education?. The study

concludes by addressing these questions and offering insights based on the available scholarly documents, with suggestions for future research to explore further and broaden the scope of this study.

3. RESULTS AND DISCUSSION

3.1 Results

The results of this review are categorized into three dimensions: opportunities, challenges, and strategies in addressing the academic transition to higher education after Grade 12. The subsequent part presents a thorough explanation and discussion of each classification.

3.1.1 Opportunities in Academic Transition to Higher Education

Based on the results of the literature review conducted, the following table presents a brief overview of opportunities in academic transition to higher education:

Table 1. Opportunities in academic transition to higher education

Opportunities in academic transition to higher education	Sources
[1] Shaping future career aspirations	(Hitka et al. (2021), Vital (2021), Adu-Yeboah et al. (2022), & Kibona (2024)
[2] Building professional competence	Daineko et al. (2020), Makarova et al. (2022), & Cheng (2025)
[3] Advancing digital literacy	Al-Abdullatif & Gameil (2020), Pertiwi & Siti (2022), Chan & Sung (2025)
[4] Developing social connections	Gogu & Kumar (2021), Crawford et al. (2023), & Dooley et al. (2025)

The table above highlights various opportunities that arise during the academic transition to higher education. The first opportunity, which shapes future career aspirations, is emphasized in several studies that show how academic experiences help students define their professional goals. Next, building professional competence, which is essential for entering the workforce, is highlighted in research that stresses the importance of practical and technical skills. Additionally, advancing digital literacy is seen as a crucial aspect of preparing students for the rapidly evolving technological landscape. Lastly, developing social connections is a crucial opportunity during this transition, as it enables students to build both social and professional networks that enrich their university experience.

3.1.2 Challenges in Academic Transition to Higher Education

Based on the results of the literature review screening that has been conducted, the challenges in the academic transition to higher education are presented in the table below:

Table 2. Challenges in academic transition to higher education

Challenges in academic transition to higher education	Sources
[1] Information and communication technology challenges	Mushimiyimana et al. (2022), Faloye & Ajayi (2022), Mbambo & du Plessis (2025)
[2] Students' financial problems	Norazlan et al. (2020), Moore et al. (2021), Sharmin & Tirno (2022), Qasim et al. (2023)
[3] Academic stress	Deng et al. (2022), Ali & Roy (2024), Gobena (2024), Taj et al. (2024)
[4] Academic adjustment	Bengesai et al. (2022), Mweene et al. (2024), Mokhampanyane (2024), Hako et al. (2025)

The table above outlines various challenges encountered during the academic transition to higher education. One major challenge is the use of information and communication technology (ICT), where students often face technological barriers, as highlighted by several studies. Financial problems are also a significant issue, with students struggling to manage tuition fees and living expenses, as recent research has indicated. Academic stress is another significant challenge, as the pressure of academic performance, deadlines, and workload impacts students' well-

being. Finally, academic adjustment is a key difficulty as students adapt to new learning environments, teaching methods, and expectations, as reflected in research on this transition phase.

3.1.3 Strategies in Academic Transition to Higher Education

Based on the results of the literature review screening that has been conducted, the following strategies for academic transition to higher education are summarized in the table below:

Table 3. Strategies in academic transition to higher education

Strategies in academic transition to higher education	Sources
[1] Core English language competence	Suyansah & Gabda (2020), Kadwa & Alshenqeeti (2020), Sadia et al. (2021), & Bhatti & Alzahrani (2024)
[2] ICT knowledge	Oguguo et al. (2020), Ishaq et al. (2020), & Batez (2021)
[3] Students’ self-regulation	Kryshko et al. (2020), Kashif & Shahid (2021), & Elsayad (2024)
[4] Students’ self-study	Nguyen et al. (2021), Tomak & Seferoğlu (2021), Algouzi et al. (2023)
[5] Students’ self-efficacy	Konaszewski et al. (2021), Griffiths et al. (2021), Meng & Zhang (2023), & Al-Qadri et al. (2024)
[6] Students’ parental engagement	Phuyal (2024), Adeola et al. (2024), & Mugumya et al. (2025)

The table above presents various strategies to support students during their academic transition to higher education. One key strategy is enhancing core English language competence, which is crucial for effective communication and academic success, as highlighted by several studies. Another important strategy is improving ICT knowledge, enabling students to navigate digital tools essential for modern learning environments. Self-regulation is also emphasized, as it helps students manage their time and learning habits independently. Additionally, fostering self-study skills allows students to take initiative in their learning process. Building self-efficacy, which relates to students' belief in their ability to succeed academically, is another significant strategy to boost confidence and performance. Lastly, parental engagement plays a crucial role in supporting students' academic journeys, with research demonstrating its positive impact on students' motivation and academic achievement.

3.2. Discussion

3.2.1 Opportunities in Academic Transition to Higher Education

This study aims to provide an in-depth analysis of the opportunities for high school transition to higher education, drawing on credible and scholarly documents from diverse settings. These opportunities involve shaping future career aspirations, building professional competence, advancing digital literacy, and developing social connections. These are explained precisely below.

a) Shaping future career aspirations

A career is seen as a future goal, forming the foundation of human life, and involves both complex and straight-forward pathways, depending on the level of knowledge or education (Salisu et al., 2022). Career choice is usually influenced by various factors that help to determine the right future occupation, including educational performance (Salisu et al., 2022). The educational level is recognized as a fundamental factor in developing and promoting career goals (Getachew et al., 2020). Moreover, as Adu-Yeboah et al. (2022) stated, advancing academically serves as a pivotal bridge to expand knowledge and skills, enabling individuals to contribute to the development of society, their nation, and, in particular, to achieve their future career destiny. Numerous studies have demonstrated that career aspirations are a key motivational factor encouraging students to pursue their academic goals in higher education (Hitka et al., 2021; Vital, 2021; Kibona, 2024).

A study by Hitka et al. (2021) examined 3,720 Slovak employees working in small and medium-sized enterprises in Slovakia, showing that an employee’s career is significantly influenced by their level of education. The findings confirm that employees with higher academic qualifications experience more career growth and gain greater recognition at work, such as prestige, personal development, professional involvement, skills, personal fulfillment, and independent decision-making. Similarly, another study by Vital (2021) was conducted with 10 participants, including students, alums, and staff from HigherEdOrg in Port-au-Prince, Haiti, illustrating that higher education serves as a significant bridge in promoting students’ career development. The results show that the level of academic expe-

riences has contributed to students' careers by providing engaging courses that foster potential academic opportunities, preparing students for future employment, offering practical experience, and enhancing their career readiness, as well as improving basic computer skills.

An exploration by [Adu-Yeboah et al. \(2022\)](#) was conducted with 10 lecturers from three public and two private universities in Ghana, demonstrating that pursuing higher education has a positive impact on students' future career aspirations. The findings include developing critical thinking and problem-solving skills, enhancing students' communication skills, fostering interpersonal skills, and improving proficiency in technology. Lastly, a study by [Kibona \(2024\)](#), conducted with 38 students from both a public and private university across three faculties in Tanzania, emphasized that academic advancement positively influences students' career prospects. The findings include preparing students for employment through the program and enhancing their skills to meet future labor market and career demands.

b) Building professional competence

Currently, higher education institutions are gradually updating their curricula to be more flexible, support diverse academic collaborations, and incorporate students' skills to fulfill job market demands ([Daineko et al., 2020](#)). This program development is essential for students, as it strengthens and collaborates foundational skills to meet individual needs, enhance knowledge, and, most importantly, boost professional competence to fulfill the requirements for successful employment ([De Prada et al., 2022](#)). Additionally, the academic competence framework plays a crucial role in advancing academic modernization, aiming to foster students' professional competence, support their persistence in higher education, and equip them with a solid foundation for their future outlook ([Belomestnova, 2021](#)). As Belomestnova noted, higher education serves as a significant bridge, providing students with the opportunity to develop into professional candidates.

Several studies have demonstrated that academic advancement to higher education facilitates the development of professional competence for future roles ([Daineko et al., 2020](#)). A study by Daineko et al. conducted at Ural Federal University, Russia, revealed that the institution has developed a program to support students' academic performance. The findings include integrating digital innovation in the program, such as distance learning technologies or online learning styles, designing education content to meet workforce requirements, and providing consultation and guidance on new learning approaches to support the development of students' competencies ([Makarova et al., 2022](#); [Cheng, 2025](#)). Likewise, an exploration by [Makarova et al. \(2022\)](#) was conducted among 213 university students from Ulyanovsk State University in Russia, confirming that higher education has significantly contributed to key professional competencies and shaped the students' personalities.

The findings emphasized that students' transition to university led to greater professional and personal development, such as enhancing field-specific experience, acquiring core skills, increasing cognitive adaptability, building environmental flexibility, and fostering personal attributes necessary for their future profession ([Makarova et al., 2022](#)). Another study by Cheng (2025) examined university students from the University of Hong Kong Institute for China Business (HKUICB) in China, involving 161 students in the survey and 11 students in interviews. It showed that the university offers academic programs to support students' professional competence. The results include providing professional content for career growth, building students' qualifications for job opportunities in competitive markets, enabling core problem-solving skills, guiding students to navigate their majoring environment, and designing the curriculum to support students' understanding when facing critical barriers ([Cheng, 2025](#)).

b) Advancing digital literacy

Digital innovation has become a fundamental part of a modernized community, serving as a substantial influence on institutions across diverse sectors ([Gkrimpizi et al., 2023](#)). The institutions have recently experienced pivotal changes led by digital and societal trends towards modernization ([Alenezi et al., 2023](#)). In educational contexts, several studies have revealed that higher education institutions are undergoing significant transformations in their academic settings and implementing advanced operations ([Benavides et al., 2020](#); [Farias-Gaytan et al., 2023](#)). Furthermore, the presence of technologies has contributed to significant evolutions, such as transforming education into modern academic methods, enhancing stakeholders' skills, including those of faculty members and, especially, students ([Qureshi et al., 2021](#)).

For instance, several studies have confirmed that integrating technology serves as a significant bridge for building stakeholders' digital knowledge, particularly by enhancing students' digital competence through their engagement in higher education ([Pertiwi & Siti, 2022](#); [Chan & Sung, 2025](#)). A study by [Al-Abdullatif & Gameil \(2020\)](#) was conducted among 204 undergraduate students at King Faisal University in Al Hasa, Saudi Arabia, illustrating that technology-heavy courses significantly enhance students' digital knowledge and digital citizenship. The findings

include increasing security and privacy awareness, developing communication competence through digital tools, enhancing students' understanding of the ethical and responsible use of digital platforms, and expanding overall knowledge of digital applications.

Similarly, another study by [Pertiwi & Siti \(2022\)](#) was conducted with 22 English as a Foreign Language students at a public university in Bandung, Indonesia, demonstrating that higher education serves as a valuable bridge to enhance students' digital literacy. These efforts include enhancing information literacy, developing media literacy, and increasing literacy in information and communication technology. Overall, a study by [Chan & Sung \(2025\)](#) was conducted with 57 undergraduate students at a university in Hong Kong, China, showing that the university's course-based research project significantly helped the students foster their digital literacy skills. The findings demonstrate that this educational approach has improved students' digital literacy skills, encompassing branching literacy, information literacy, reproduction literacy, socio-emotional literacy, and technical literacy, thereby providing more opportunities for their lifelong learning ([Chan & Sung, 2025](#)).

c) Developing social connections

The programs that students enroll in during their academic studies are the result of the university's preparation, and students are required to complete the curriculum. This course engagement offers a valuable opportunity for students to build social connections with fellow faculty members and peers, and gain beneficial experience ([Israel et al., 2020](#)). This social connection represents the capability of students to view themselves as being part of social relations, defined by valuable interactions and connections ([Hoang & Nguyen Thuy, 2025](#)). As [Liu \(2023\)](#) claimed, social connection is essential for students to adapt and maintain well-being, such as enabling social lives, making new friendships, alleviating homesickness, and supporting the transition to higher education. It is commonly shaped by diverse factors, including academic environment ([Bull et al., 2024](#)), and is significant for supporting academic outcomes and overall learning achievement ([Tafesse, 2022](#); [Nawa et al., 2023](#)).

Hence, numerous studies have demonstrated that the transition to higher education serves as a mechanism for students to enhance and build their social connections through their engagement in higher education settings ([Gogu & Kumar, 2021](#); [Crawford et al., 2023](#); [Dooley et al., 2025](#)). A study by [Gogu & Kumar \(2021\)](#) found that graduate and postgraduate students from five design institutions in India experienced varying levels of social connectedness in online programs, indicating that higher education contexts serve as a significant bridge in formulating students' opportunities to build and maintain social connections. These highlight the strong connection with educators to enhance knowledge, develop peer relationships through collaboration and interaction, and assist students with technology adoption to maintain connectedness and integration. Another study by [Crawford et al. \(2023\)](#) examined 1,159,768 undergraduate and postgraduate students from Australian universities, confirming that social connection is significantly influenced by involvement in higher education.

These supports include helping students connect with other local students outside, providing students with support, designing inductions and orientations for newcomers, and creating teamwork projects to improve communication, leadership, and collaboration ([Crawford et al., 2023](#)). Research by [Dooley et al. \(2025\)](#) investigated 32 university students across five focus groups in the United Kingdom, highlighting that compassionate university practices can support students' sense of belonging and enable the development of social connections during the academic transition. These involve pre-arrival communication about available support, facilitating small-group interactions between faculty and students, and offering free programs that help students build social connections without relying on existing societies ([Dooley et al., 2025](#)).

3.2.2 Challenges in Academic Transition to Higher Education

This study aims to provide a comprehensive discussion of the significant challenges associated with the academic transition to higher education after Grade 12, synthesizing academic documents across various contexts. These challenges include information and communication technology constraints, students' financial problems, academic stress, and academic adjustment in higher education. These key challenges are explained in the following sections.

a) Information and communication technology challenges

The current society has undergone multiple changes due to the growth of information and communication technology (ICT) ([Liesa-Orús et al., 2020](#)). The academic sector is among the key areas impacted by ICT integration, especially in higher education institutions, which have increasingly adopted these technologies to support their educational activities. Previous studies show that integrating ICT into academic programs has significantly improved students' skills and learning outcomes and educators, such as promoting teaching methods, providing innovative

tools, increasing digital literacy, encouraging collaboration and communication through digital platforms, boosting students' confidence in their knowledge, and supporting overall performance (Kilag et al., 2023; Chen et al., 2025).

However, beyond its dynamic benefits, ICT has also posed considerable constraints for weak ICT students and a lack of modernized equipment, with several studies illustrating that it is one of the major factors impeding students' academic success during their academic transition to higher education (Mushimiyimana et al., 2022; Faloye & Ajayi, 2022; Mbambo & du Plessis, 2025). A study by Mushimiyimana et al. (2022), involving 126 lecturers and 1,858 students from the University of Rwanda's College of Education, revealed that ICT significantly affects college students' learning performance. These challenges include limited ICT skills, lack of computers, inadequate super-vision and support, instructors' heavy workload, large class sizes, and poor ICT applications and networks, which contribute to low academic concentration, limited resource access, and decreased overall performance.

Another study by Faloye & Ajayi (2022), involving 370 first-year students at the Pietermaritzburg campus of the University of KwaZulu-Natal in South Africa, highlighted that inadequate ICT knowledge negatively affects students' learning performance. The challenges identified include difficulties in operating computers, limited IT competence, and insufficient technical support, which result in unsatisfactory academic work, restricted information searching, and low utilization of computer technology (Faloye & Ajayi, 2022). Similarly, a study by Mbambo & du Plessis (2025) encompassing 220 students from the Technical Vocational Education and Training (TVET) college in Newcastle, South Africa, showed that weak ICT competence has an impact on their learning achievements. These impacts include the fact that insufficient ICT knowledge has led to an inability to complete academic work requirements and restricted the college's throughput rate.

b) Students' financial problems

Academic engagement at higher levels is widely acknowledged as crucial for knowledge improvement; however, it frequently remains an unattainable goal due to the rising educational costs and growing student debt stemming from financial problems (Halabieh et al., 2022). These issues are linked to the rise in tuition fees and daily living expenses, which have become a significant problem for students, forcing them to encounter unexpected financial constraints (Gewalt et al., 2022). Moreover, these financial constraints have also had noticeable impacts on university students, including psychological problems, educational outcomes, and overall well-being (Douwes et al., 2023; Russell et al., 2025). For instance, several studies have indicated that financial problems significantly influence students' academic journey toward success or failure; finances also serve as a substantial part of the support needed to move forward (Norazlan et al., 2020; Moore et al., 2021; Sharmin & Tirno, 2022; Qasim et al., 2023).

A study by Norazlan et al. (2020), conducted with 120 university students from a public university in Malaysia, found that financial problems have a significant impact on students' academic performance. These issues include insufficient financial resources, delayed financial assistance, restricted loans or scholarships, inadequate financial management, and personal expenses, which lead students to seek part-time work and extra income, ultimately impacting their overall academic performance in higher education. An exploration by Moore et al. (2021) was conducted with 30 students from a large, private, urban university in the United States, showing that financial constraints definitely impede students' learning achievement and social lives. These include insufficient concentration during academic exams, an inability to focus on academic tasks due to preoccupation with expenses and emotions, and a tendency to drive oneself into isolation, embarrassment, and anxiety about career goals.

Likewise, an investigation by Sharmin & Tirno (2022) was conducted with 429 respondents from various public and private universities in Bangladesh, highlighting that financial problems have a significant impact on students' academic performance. These issues include disrupting students' learning concentration, affecting their attitudes and behaviors in learning, increasing the frequency of class absences, and contributing to poor academic performance in multiple ways (Sharmin & Tirno, 2022). Lastly, another study by Qasim et al. (2023) examined 252 graduates from the University of Baluchistan in Pakistan, showing that financial problems cause the students to face key challenges in higher education. These challenges include increasing dropout rates, which affect learning outcomes and drive students to seek part-time work, further impacting their academic performance.

c) Academic stress

Stress is a common experience in everyone's life, recognized as the body's natural physiological and psychological response to conditions perceived as constraints or threats, serving as a primary factor in facing and managing them (Córdova Olivera et al., 2023). It is often viewed as a mental health issue that everyone encounters, including students (Dewi et al., 2020). Over the past decades, higher education students have shown increasing levels of stress, primarily related to academic stress, which is considered a significant risk (Gallardo-Lolandes et al., 2020). Furthermore, academic requirements are one of the key factors that enable students to confront the academic stress.

during their learning in higher education (Geronimo et al., 2023), such as regular class participation, self-preparation for examination, academic tasks, paper submission, and uninspiring instructional methods, leading to the utmost issues for university students (Yang et al., 2021).

For instance, numerous studies have reported that most higher education students experience academic stress during their university years, which also impacts their learning success (Gobena, 2024; Taj et al., 2024). A study by Deng et al. (2022) was conducted on 220 undergraduate and postgraduate students from various majors at public, private, or semi-government higher education institutions in Rawalpindi/Islamabad, Pakistan, showing that university students are influenced by academic stress. These negative impacts include poor academic performance, quality of life, and learning achievements through the students' psychological issues, such as anxiety, pressure, and depression (Deng et al., 2022). Similarly, another study by Ali & Roy (2024), involving 336 university students from diverse majors at higher educational institutions in Kolkata, West Bengal, India, showed that academic stress has a significant impact on university students.

These consequences significantly impact students in higher educational institutions, such as a decline in students' academic progress and learning activities (Ali & Roy, 2024). An investigation by Gobena (2024) involving 270 undergraduate students from Haramaya University, a public institution in Ethiopia, demonstrated that university students are influenced by academic stress in the higher education context. These noticeable impacts include decreased learning performance, higher dropout rates, rising concerns about low graduation rates, and minimized self-confidence in academic activities. Ultimately, a study by Taj et al. (2024) was conducted on 300 university students from Lahore College for Women University, Lahore, Punjab, Pakistan, confirming that academic stress negatively affects the performance of university students. These include inadequate academic outcomes, inability to fulfill academic requirements, and unsustainable learning commitment, all of which negatively impact students' learning success in higher education.

d) Academic adjustment

The higher education system differs significantly from high school, particularly in pedagogical methods, learning outcomes, and academic responsibilities, which is viewed as a significant shift toward higher academic development and requires students to adapt more to learning (Moeurn, 2025). Academic transitions for novice students often involve changes and necessary adjustments in the higher education landscape (Lan et al., 2024). Furthermore, academic adjustment refers to how a student deals with and fulfills the requirements of educational courses and their academic contexts (Lan et al., 2024). It encompasses a wide range of diverse dimensions, such as the degree of motivation, learning performance, academic engagement styles, setting academic goals, and learning strategies for academic success (Jaiswal et al., 2024). Hence, several studies have shown that academic adjustment is the critical factor that university students face during their transition to higher education, and is determined as a substantial determinant impacting students' learning in higher education (Bengesai et al., 2022; Mweene et al., 2024; Mokhampanyane, 2024; Hako et al., 2025).

An investigation by Bengesai et al. (2022) involving 299 first-year students at the College of Law and Management Studies in South Africa highlighted that the students significantly struggle with academic adjustments, leading to a detrimental overall academic experience. These adjustment challenges include difficulty in adapting to instructional styles, academic atmospheres, a lack of course content comprehension, inadequate motivation, financial matters, family commitments, and psychological health issues (Bengesai et al., 2022). Another study by Mweene et al. (2024), involving 15 students from a state university in Zambia, demonstrated that the students experienced academic adjustment, which had a significant impact on their academic success and well-being. These constraints include new academic settings, insufficient readiness as a university student, social hardship, financial and economic anxieties, living conditions and sanitation, social isolation and homesickness, and the university learning system.

Similarly, a study by Mokhampanyane (2024) was conducted on 10 first-year students across two faculties from higher education institutions in South Africa, indicating that most students faced challenges in academic adjustment, resulting in weak learning performance. These constraints include the difficulty of managing a heavy workload of university tasks, such as increased workload, assessments, and tests, insufficient financial support, and inadequate campus accommodation. An investigation by Hako et al. (2025) involving 80 students from the University of Namibia in southern Africa revealed that the students encountered psychological adjustment constraints that significantly impacted their academic performance. These challenges include stress and anxiety related to academic grade concerns, inability to deal with multiple workloads, social and emotional issues such as feelings of isolation, social anxiety, and academic pressure (Hako et al., 2025). Ultimately, students emphasized the adjustment hardships, including difficulties with concentration and struggles in adapting to academic practices.

3.2.3 Strategies in Academic Transition to Higher Education

The study aims to provide an extensive review of existing literature on strategies for academic transition to higher education, drawing on relevant and reliable sources across various contexts. These strategies include core English language competence, Information and communication technology (ICT) knowledge, students' self-regulation, students' self-study, strengthening self-efficacy, and students' parental engagement, each of which is systematically organized and explained in the following sections.

a) Core English language competence

English is generally acknowledged as the global language, playing a crucial role in communication and connection across diverse contexts (Fadhil et al., 2025). It is used by over 400 million speakers globally and has become the leading language in various sectors, including education. The English language significantly contributes to opening opportunities for academic success, such as studying overseas, advancing to higher education programs (bachelor's, master's, or doctoral), and enhancing national and international relations (Fadhil et al., 2025). At the same time, Jajere & Alice (2025) claimed that English language competence serves as a critical bridge to support students' academic achievements by enhancing learning acquisition and interaction with educational materials. Moreover, extensive English language competence can help students achieve better outcomes, encourage academic involvement, and participate more actively in learning activities.

For instance, a few studies have noted explicitly that students need to develop and improve their English language competencies to progress to higher education contexts, serving as a crucial foundation for their academic performance and success at university (Suyansah & Gabda, 2020; Kadwa & Alshenqeeti, 2020; Sadia et al., 2021; Bhatti & Alzahrani, 2024). A study conducted with students from the Faculty of Science and Natural Resources (FSSA) at a Malaysian public university revealed that English language competence has a positive influence on university learning outcomes, particularly by increasing students' cumulative grade point average (CGPA) (Suyansah & Gabda, 2020). Likewise, an exploration was conducted with foundation year students at a Saudi Arabian university, highlighting that English language skills have a significant correlation with their learning outcomes, including the ability to meet the university's requirements (e.g., enrollment test), independently handle challenges during the courses, and achieve better exam results (Kadwa & Alshenqeeti, 2020).

A study conducted with engineering students at Mehran University, Jamshoro, Pakistan, found that English competence has a substantial influence on students' achievements (Sadia et al., 2021). These include helping students gain an in-depth understanding of mathematical subjects and assessments, increasing students' CGPA, and enhancing overall academic performance (Sadia et al., 2021). Another investigation by Bhatti & Alzahrani (2024), conducted with students enrolled in different academic programs at Saudi Arabian universities, shows that English language competence has contributed to positive learning outcomes, such as increased student confidence, improved speaking and comprehension skills in critical ideas or linguistics, and higher satisfaction and achievement of learning credits. Ultimately, English language competence plays a significant role in shaping and directing students to achieve academic success and foster self-independence in higher education settings (Bhatti & Alzahrani, 2024).

b) Information and communication technology (ICT) knowledge

In the twenty-first century, education has undergone a modernization through the integration of technological transformation, connecting to information and communication technologies (ICTs). It has become a major foundation in educational environments (Gómez-Poyato et al., 2022). ICTs serve as significant applications for assessing information, facilitating communication, providing accessible connectivity, and enhancing learning activities (Gómez-Poyato et al., 2022). In higher education settings, ICTs provide a wide range of opportunities for students to enhance their capacities through innovative, interactive, and independent learning platforms (Lokpo et al., 2023). Moreover, ICT knowledge plays an essential role for students not only in high school but also for higher education students by enhancing students' learning activities both inside and outside the classroom and fostering research activities (Al-Rahmi et al., 2020).

These core knowledge areas encompass hardware, software, network, and media, primarily used to collect, manage, analyze, and deliver information through data, audio, and video (Al-Rahmi et al., 2020). Several studies have highlighted that students with basic ICT knowledge exhibit better academic performance in higher education and develop practical learning skills (Oguguo et al., 2020; Ishaq et al., 2020; Batez, 2021). A study by Oguguo et al. (2020), conducted among 320 undergraduate students at the University of Nigeria, Nsukka, South-Eastern Nigeria, illustrates that ICT knowledge has significantly supported students' learning at the university. These include knowledge

of MS Word/Excel, PowerPoint, Search Engines, and the Internet, which help students develop their learning effectively, such as assignment preparation, slide design, information search, and well-designed tasks for academic completion (Oguguo et al., 2020). Similarly, another study by Ishaq et al. (2020) investigated 302 students from five universities in Lahore District, Pakistan, including two public and three private educational institutions, revealing that ICT knowledge has had a significant positive influence on the students' learning at university.

The results highlight that the majority of students have accepted the usefulness of ICT knowledge, which supported their academic performance effectively in higher education, such as organizing assignments, participating in classroom activities, managing their lessons more efficiently, improving their computer skills, and engaging in learning more effectively (Ishaq et al., 2020). Ultimately, an exploration by Batez (2021), conducted with 360 students from the Faculty of Sports and Physical Education (FSPE) at the University of Novi Sad in Serbia, demonstrated that ICT competence has substantially enhanced students' performance. These include the flexibility and persistence in adopting new learning methods, such as online classes, as well as the practical completion of professors' work, including generating presentations and designing academic tasks.

c) Students' self-regulation

To achieve a successful graduation, students must experience and tackle diverse challenges at each stage and fulfill all key individual requirements for the university to earn the degree effectively (Ifenthaler & Yau, 2020). Additionally, the university environment supports learning performance through class participation, activities, and overall curriculum engagement, which, in turn, depends on students' characteristics, including self-regulation in academic involvement. Self-regulation is defined as the critical quality that enables students to control their academic behaviors and performance (Gökteke & Ocak, 2024). It is a pivotal capability that allows individuals to monitor their own actions and strive toward a higher common goal (Geng & Wei, 2023).

According to Eggers et al. (2021), self-regulation serves as a significant alternative to support students' learning performance, achieve the desired learning outcomes in higher grades, and enable students to complete the course efficiently in higher education. For instance, several studies have confirmed that self-regulation plays a crucial role in enhancing students' learning and providing substantial benefits for higher education learners (Elsayad, 2024). An exploration by Kryshko et al. (2020), conducted with 249 undergraduate students at a German University, highlights that self-regulation strongly supports academic achievement in higher education, including enhancing students' academic performance, reducing the number of student dropouts, and fostering learning persistence.

A study by Kashif & Shahid (2021) conducted among 610 undergraduate students from the education departments of public and private universities in Lahore, Pakistan, showed that self-regulation has a positive influence on students' academic achievements, including enhancing students' GPAs, strengthening academic resilience, and increasing effective time management. Ultimately, another study by Elsayad (2024) studied 1675 undergraduate students in Egyptian universities, confirming that self-regulation has significantly enabled students to boost their academic learning outcomes. The finding reveals that self-regulation competence can enhance diverse metacognitive activities, improve analytical learning resources, support adaptation to new learning, and increase the ability to handle academic challenges (Elsayad, 2024).

d) Students' self-study

According to Murzina et al. (2021), "self-study is often interpreted as 'independent learning' and 'self-regulated learning'" (p. 144). Student self-study related to the implementation of a self-directed learning approach or self-determined learning, enhancing students' competencies and knowledge in a higher education context (Rogan et al., 2021). As noted by Murzina et al. (2021), self-study has encouraged students to become enthusiastic about their academic work, including attending online learning sessions, reading electronic resources, submitting professors' tasks, creating a course plan, and tracking their academic progress. It serves as a substantial learning approach to assist students, offering numerous benefits, including learning adaptability and independence (Chin et al., 2024). Furthermore, students can design their learning experience based on their self-directed learning preferences and pace, enabling customized learning strategies.

This method helps students develop academic self-management and responsibility, as they must take control of their academic work and plan their learning time effectively (Chin et al., 2024). For instance, several studies have claimed that self-study plays a crucial role in supporting and enhancing students' learning success in higher education (Tomak & Seferoğlu, 2021; Algouzi et al., 2023). An investigation by Nguyen et al. (2021) studied 75 students in English majors at a university in the Mekong Delta, Vietnam, illustrating that self-study has a positive impact on their reading competencies. These findings include improving their ability to accelerate learning efficiently and

effectively, fostering their independent learning of new knowledge, identifying effective personalized learning styles or approaches, and developing students' cognitive and soft skills (Nguyen et al., 2021).

Likewise, an exploration by Tomak & Seferoğlu (2021) was conducted with 169 university students from one of the public institutions in Istanbul, Turkey, indicating that self-study significantly supports their language learning, such as increasing intrinsic motivation, strengthening learning competencies, monitoring academic performance in language, and achieving language learning goals. Overall, another study by Algouzi et al. (2023), conducted among undergraduate students at the College of Languages and Translation at Najran University in the Kingdom of Saudi Arabia, showed that self-study has significantly contributed to students' learning success. These contributions include enhancing students' critical thinking skills in learning courses, enabling independent learning with digital resources through Telegram, and strengthening academic persistence and motivation.

e) Students' self-efficacy

According to Zhai (2025), self-efficacy was first introduced by Bandura in 1977 and is commonly coined as people's belief in their ability to perform tasks and maintain functions to achieve their targeted goals, thereby influencing their lives. In educational contexts, it is called academic self-efficacy that serves as a significant influence on students' beliefs, supporting consistent learning development, directing career choices, and functioning as both a motivational factor and an academic approach that effectively promotes academic results (Greco et al., 2022) as Meng & Zhang (2023) claimed that extensive academic self-efficacy improvement is one of the significant mechanisms for university students to strengthen and foster their learning outcomes in higher education.

In addition, several studies have demonstrated that academic self-efficacy plays a significant role in enhancing students' academic performance in higher education and supporting the successful completion of their degrees (Meng & Zhang, 2023; Al-Qadri et al., 2024). A study by Konaszewski et al. (2021) involving 632 university students from various majors at the University of Białystok in Poland showed that self-efficacy positively affects academic performance by enhancing task-oriented strategies and minimizing avoidance and emotion-focused coping. Another study by Griffiths et al. (2021) investigated 294 university students in the North of England (UK), showing that self-efficacy definitely influences students' academic achievements. The findings include enriching skills-development modules, boosting learning activities, and, especially, supporting their employability.

Likewise, an investigation by Al-Qadri et al. (2024) with 611 university students across three different public faculties at Sana'a University in Yemen indicated that self-efficacy has a significant impact on students' performance in higher education. These key findings have contributed to improving learning outcomes and increasing students' academic commitment. Overall, an exploration by Meng & Zhang (2023) involving 258 public university students in China illustrated that self-efficacy significantly supports students' learning success in higher education. The findings include improving students' academic performance, enhancing their motivation, and reducing withdrawal rates (e.g., dropout, suspension, or disengagement).

f) Students' parental engagement

Parental engagement refers to the activity and participation in which parents actively engage with their students' activities, specifically the academic progress of their children (Adeola et al., 2024). It has a significant influence on the academic performance of students, promotes students' learning outcomes, and motivates their learning progress at higher educational levels (Ahmad et al., 2024). These parental engagements can be described with several aspects, such as offering learning resources, guiding future goals, providing motivational communication (Ahmad et al., 2024), promoting good learning environments at home, encouraging on-time task completion, and assisting regular discussion on their learning challenges (Adeola et al., 2024).

Furthermore, as Mugumya et al. (2025) noted, parental engagement plays a crucial role in facilitating a successful transition for students from one stage to another, thereby empowering their learning outcomes. For instance, several studies have confirmed that students' parental engagement has reshaped and inspired their learning success in higher education (Adeola et al., 2024). A study by Phuyal (2024), conducted with 225 undergraduate students from various universities in Koshi Province, Nepal, found that parental engagement has a positive impact on students' learning success. These significant benefits include increasing students' learning grades and exam scores, fostering academic performance and improving course completion rates, building a strong relationship between parents and students, and enabling skill improvement and learning acquisition (Phuyal, 2024).

An exploration by Adeola et al. (2024) studied 10 university students from the University of Abuja in Nigeria, highlighting that parental engagement has a positive influence on students' academic success at university. The findings confirm that parental engagement supports students in pursuing their academic goals, is linked to improved learning performance, and promotes students' emotional intelligence, thereby helping to foster both academic

outcomes and personal development. Ultimately, an investigation was conducted with 117 participants from the Ryakasinga Centre for Higher Education (RCHE) in Sheema District, Uganda, revealing that parental engagement has a significant impact on students' academic performance (Mugumya et al., 2025). These include enhancing students' course performance, improving examination scores, increasing mock test performance, and boosting students' confidence in their results from the Uganda National Examinations Board.

However, significant constraints persist beyond the academic transition, including ICT challenges, financial difficulties for students, academic stress, and issues with academic adjustment. A lack of ICT knowledge often hampers students' learning in higher education, such as their ability to complete tasks, maintain concentration, and their overall academic performance. Financial problems exert significant pressure, forcing students to balance and allocate their time between work and study, which in turn affects their learning outcomes. Additionally, academic stress is a psychological concern caused by academic workload and related learning activities, leading students to face mental health issues such as learning anxiety, decreased academic performance, and reduced motivation, resulting in weak academic results, potential failure, and increased dropout rates at the university.

The difficulties in academic adjustment also impact overall learning performance due to challenges in learning and teaching styles, limited understanding of academic content, and personal issues. These findings show that without effective mechanisms, success in this transition can face significant obstacles that hinder students' learning in higher education. Therefore, key strategies identified through thorough analysis of existing literature include core English language competence, ICT knowledge, students' self-regulation, self-study, self-efficacy, and parental engagement, which are crucial in managing and overcoming these challenges. Core English language competence can help students improve learning engagement, develop additional research skills, and enhance overall academic performance. At the same time, ICT knowledge supports adapting to digital-driven learning environments in higher education.

Moreover, students' self-regulation, self-study, and self-efficacy serve as fundamental mental strategies that help students develop a strong commitment, promote learning motivation, and foster independent learning and research, ultimately boosting academic confidence and leading to academic achievement and success. Ultimately, parental engagement plays a key role in supporting students' academic transition by providing resources, guidance, and motivation that foster learning dedication and overall performance. Collectively, this study emphasizes that successful academic transition involves multiple dimensions, including higher education institutions, policymakers, families, and, most importantly, students themselves, who must comprehensively address psychological, financial, and structural obstacles. Considering opportunities, challenges, and strategies enhances understanding of a merit-based academic transition.

4. IMPLICATIONS AND CONTRIBUTIONS

4.1 Research Implications

The theoretical implications of this study contribute to the development of a more comprehensive framework for understanding the academic transition to higher education. By integrating the various opportunities, challenges, and strategies that students face after completing grade 12, this research enriches the theoretical discourse on academic transitions in higher education. It highlights that the success of this transition is not solely dependent on academic factors but also on students' ability to navigate social, emotional, and technological challenges. Additionally, it emphasizes the importance of external support, such as parental involvement and digital literacy. This study, therefore, provides a new perspective that connects theories of career development, self-regulation, digital competency, and social support, offering a foundation for future research and educational policy aimed at facilitating smoother transitions into higher education.

4.2 Research Contributions

The contribution of this study lies in its comprehensive analysis of the opportunities, challenges, and strategies involved in the academic transition to higher education. By synthesizing a wide range of scholarly sources, this study fills a significant gap in the literature, offering an integrated perspective on the factors that shape students' experiences during this critical transition. It identifies key opportunities such as career development, digital literacy, and social connection-building, while also addressing challenges like financial issues, academic stress, and ICT constraints. Furthermore, this research highlights practical strategies for overcoming these challenges, including enhancing self-regulation, improving ICT knowledge, and promoting parental engagement. The findings provide valuable insights for educators, policymakers, and researchers, offering a framework to support students' successful transition to higher education and informing future studies in this field.

5. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

5.1 Research Limitations

One limitation of this study is its reliance on secondary data from existing literature, which may introduce biases based on the scope and methodologies of the original studies included. Since the research only reviewed documents published between 2020 and 2025, it may overlook relevant older studies or emerging trends that could provide a more complete understanding of the academic transition process. Additionally, the inclusion criteria focused on English-language publications and specific academic databases, potentially excluding important research published in languages other than English or on non-academic platforms. Furthermore, the study primarily examines the academic transition within specific institutional and geographical contexts, which may limit the generalizability of its findings to all higher education systems worldwide. Future research should incorporate a broader range of sources, contexts, and methodologies to provide a more holistic perspective on the academic transition to higher education.

5.2 Recommendation for Future Research Directions

Future research should investigate the academic transition to higher education from a broader range of institutional, geographical, and cultural contexts to gain a deeper understanding of how diverse factors influence this process. It would be valuable to investigate how students from various backgrounds, such as first-generation college students or those from underrepresented groups, navigate their transitions and which support systems are most effective for them. Additionally, future studies could incorporate primary data collection through surveys, interviews, or case studies to gain deeper insights into students' personal experiences and perspectives. Research could also examine the long-term impact of these strategies and challenges on students' academic success and mental well-being beyond the initial transition phase. Finally, exploring the role of emerging technologies, such as artificial intelligence and online learning platforms, in supporting academic transitions would provide valuable information on how technology can be leveraged to ease the transition process for students in the future.

6. CONCLUSION

This study offers a comprehensive analysis of the opportunities, challenges, and strategies associated with transitioning to higher education, drawing on a review of existing literature. The empirical findings highlight significant opportunities in academic transition, including shaping future career aspirations, building professional competence, advancing digital literacy, and fostering social connections. These elements are crucial in supporting students' progression to higher education and creating pathways that enable future employment, personal growth, professional development, digital proficiency, and social interaction in a new environment. Ultimately, these opportunities serve as a critical bridge to foster students' academic involvement, development, and promote sustainable advancement through offering them professionalism and knowledge that help students adapt to innovative communities and the job market.

The findings indicate that higher education functions as a fundamental pathway to enhance the students through future career development, skill advancement, digital literacy, and social connections. Nevertheless, these opportunities remain the pivotal constraints, involving ICT challenges, financial problems, academic stress, and adjustment, experienced during their academic development. To address these obstacles, effective strategies must be implemented, including ICT knowledge, students' self-regulation, self-study, self-efficacy, and parental engagement, which serve as a vital mechanism to support students in higher education. More importantly, the findings highlighted that universities need to develop inclusive frameworks and programs that not only provide an educational structure but also address the mental, social, and financial concerns of student life. Since the study is a review article, it provides an insufficient examination and relies only on secondary data. Future research should conduct a comprehensive and insightful investigation of the academic transition to higher education after Grade 12.

It should explore the key dimensions of opportunities and challenges, focusing on how each specific factor encourages students to pursue learning at university and highlighting related challenges that may arise during their academic development. Additionally, future studies should identify important strategies in the academic transition, such as ICT knowledge, students' self-regulation, self-study, self-efficacy, and parental engagement, and examine diverse geographical, environmental, and cultural contexts. The use of mixed methods and longitudinal approaches can provide a deeper analysis of opportunities, constraints, and strategies in the academic transition. Longitudinal approaches are particularly valuable for examining opportunities and challenges in detail and offering insights into how strategies help students navigate their academic journey and achieve success. While mixed methods combine

qualitative and quantitative data to gain a deeper understanding through numerical data and contextual analysis, these methods can together support future research in demonstrating the key factors for successful academic transition.

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CRediT Authorship Contribution Statement

The author declares that the entire research and writing process for this article was conducted independently. The author assumes full responsibility for all data associated with this research. No other individual contributed as a co-author or made any significant contribution to the content of this work.

Declaration of Generative AI (GenAI) Usage in Scientific Writing

The authors declare that **OpenAI**'s Generative AI tools were used to assist with language enhancement, text refinement, grammar, clarity, and coherence throughout the preparation of this manuscript. All AI-generated suggestions were critically reviewed, revised, and verified by the authors. The research findings, scientific content, interpretation, and conclusions were developed and approved by the authors. The authors take full responsibility for the accuracy, originality, and scientific integrity of the final manuscript. All instances of Generative AI usage in this article were conducted by the authors in accordance with the **SAJGTIE GenAI Tool Usage Policy**, with the authors assuming full responsibility for the originality, accuracy, and integrity of the work."

Conflict of Interest Statement

The authors declare that they have no conflicts of interest related to this research. I have not received financial support, consulting fees, or other benefits from organizations that may influence the interpretation or conclusions of this work.

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