

Subject Choice at University Admission: A Systematic Review for Investigating the Role of Socioeconomic and Institutional Determinants

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Abstract

Higher education plays a decisive role in achieving the sustainable development of a country. The decision-making in education is a complex procedure as it is influenced by multiple factors, including individual, social, financial, cultural, and institutional considerations. This study is an endeavor to explore the role of socioeconomic and institutional factors that influence students' subject choice during admission at university. A systematic search yielded 73 relevant articles based on predetermined criteria. After carefully reviewing the keywords and abstracts, 30 articles published between 2000 and 2022 were selected as sample. These included 27 articles employing quantitative research approaches, 2 utilizing qualitative approaches, and 1 following a mixed-method approach. All the selected articles primarily examined socioeconomic and institutional factors influencing subject choice. This study mainly found seven key themes (consisting of sixteen elements) related to socioeconomic and institutional factors encouraging subject choice at university admission. Socioeconomic factors including, parental education, occupation, and income, played a crucial role for the choice of a subject. However, institutional factors like reputation and location of university, geographical proximity to home, information sources, quality of education, university facilities and services, and career prospects had a substantial influence on the choice of subject selection. Among socioeconomic determinants, parental education and income were the most frequently cited factors, both appearing in 40% of the literature, whereas, among institutional determinants, the quality of the university emerged as the most significant determinant, cited by 56% of the articles. The findings of this study provide valuable insights for policymakers, helping them better to understand the underlying reasons behind students' subject selection. The government should address socioeconomic barriers, improve access to education and universities could enhance information accessibility, facilities, academic offerings, and reconsider the strategies regarding reputation and marketing.

Keywords: Institutional factors, Socioeconomic factors, Subject selection, Tertiary education, University students

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1. Introduction

Education is recognized as a fundamental pillar of human social progress (Campaign for Popular Education, 2015). In Bangladesh, it plays a crucial role in promoting sustainable development and greatly influences both personal well-being and national progress. (Bangladesh Bureau of Statistics, 2015b). The Sustainable Development Goals (SDG 4) advocate for quality education for all citizens. Student recruitment has become a major concern for universities worldwide, as university authorities increasingly face complex challenges in enrolling a sufficient number of students each year. (Johnston, 2010). Every year, approximately 1.31 million students achieved the Higher Secondary Certificate (HSC) examination in Bangladesh and must face rigorous admission tests. (Sultana & Chakroborrtty, 2022). In the highly competitive higher education sector, institutions must attract enough students and ensure to admit students with the appropriate qualifications (Obermeit, 2012). Bangladesh, in the last two decades or so, has done quite well in improving access to education as well as removing gender disparity at the primary and secondary level, and has set its focus on the improvement of the quality of higher education (Campaign for Popular Education, 2009). It has made remarkable progress in poverty reduction and human development primarily through educational development (Bangladesh Bureau of Statistics, 2015a).

Higher education intends to help students to explore new ideas learns about different culture and gain a sense of self-awareness. It is also seen as a way to contribute for the development of a society as a whole. The process by which students decide on their field of study is multifaceted, influenced by a dynamic combination of factors. Located in one of the world's largest deltas, Bangladesh spans an area of 147,570 square kilometers. After gaining independence in 1971, the country had a population of 63.58 million, with males accounting for 33.06 million (Bangladesh Bureau of Educational Information and Statistics, 1978). By 1974, the literacy rate stood at 24.3%, with a notable gender disparity—32.9% for males and 14.8% for females. Literacy levels also varied significantly by location, with rural areas having a rate of 22.3%, compared to 44% in urban regions (Bangladesh Bureau of Educational Information and Statistics, 1981). According to education household survey of Bangladesh 2014, around 60 percent people, equal or more than 7 years of age, were literate, and the rate of literacy in rural areas was about 56 percent, while it was around 71 percent in urban areas (Bangladesh Bureau of Statistics, 2015b). The enrollment rate in higher education institutions in Bangladesh has increased significantly in recent years, with a significant gender difference. In 2022, the total enrolment was 10.13 million compared to only 31,000 in 1972 (Bangladesh Bureau of Educational Information and Statistics, 2023). According to the Bangladesh Bureau of Educational

Information and Statistics (2023), the country's gross enrolment ratio (GER) for higher education stood at 20.18% in 2023, but the GER for females was much lower at 16.51% (Bangladesh Bureau of Educational Information and Statistics, 2023).

Selecting a university subject holds particular importance, as it significantly impacts both academic experiences and future career prospects. Students must carefully choose a field that aligns with their interests and abilities while considering long-term career objectives and market trends (Campaign for Popular Education, 2015). In Bangladesh, several factors affect the selection of tertiary students. Not only students' academic achievement, but also others factors including, socioeconomic and demographic factors like, personal attributes (Hemsley-Brown, 2015; Jeffries et al., 2019; Korpershoek et al., 2012; Mangan et al., 2010; McMaster, 2017; Pinxten et al., 2015; Ro et al., 2018; Sheng, 2017), socioeconomic status (Brooks, 2008; Hemsley-Brown, 2015; Mangan et al., 2010; McMaster, 2017; Whitehead et al., 2006), and academic factors like, subject related factors (Bock et al., 2014; Callender & Jackson, 2008; Dunnett et al., 2012; Hemsley-Brown, 2015; Jeffries et al., 2019; Simoes & Soares, 2010; Whitehead et al., 2006), university related factors (Azzone & Soncin, 2019; Dunnett et al., 2012; Hemsley-Brown, 2015; Munisamy et al., 2014; Simoes & Soares, 2010; Thi & Thorpe, 2015) as well as factors related with students, subject and career (Hemsley-Brown, 2015; Le, Robinson, et al., 2019; Munisamy et al., 2014; Pinxten et al., 2015; Simoes & Soares, 2010) were responsible for different selection of subject. This study tried to investigate the key socioeconomic and institutional determinants influencing their choices to study at a particular subject in higher education.

2. Rationale of the study

Bangladesh is a developing and densely populated country. The economy and national development of a country depend on its quality of education, especially at the tertiary level. Students, after completing higher secondary level, are eligible for admission to Class XIII, i.e., honors or degree. Students enrolled with high ambition and want to explore knowledge (Campaign for Popular Education, 2016). Despite their intrinsic motivation, many students at a higher secondary level cannot meet their desired goals. In recent decades, both the enrolment rate of students and the number of institutions increased in tertiary education. Apart from students' personal and socioeconomic factors, numerous other factors determine or influence the selection of a specific subject or university in Bangladesh. A small number of studies have examined and arranged the available data concerning subject selection in developing nations. This study, therefore, attempts to address the following research objectives in order to respond to the existing research gap:

3. Research Objectives

The broad objective of this study is to find out the major socioeconomic and institutional determinants related to subject choice through the evaluation of the literature. Based on this broad objective, the study identifies two specific objectives:

- i. To find out the socioeconomic determinants of subject choice during university admission.
- ii. To identify the institutional determinants contributing to subject choice at university admission.

4. Research Methodology

Research Design

This study employs a systematic review methodology to investigate the role of socioeconomic and institutional determinants in subject choice at university admission. By adopting Boolean search operators, the approach ensures a comprehensive and structured analysis of existing literature, focusing on identifying trends, gaps, and the impact of various determinants on students' choices.

Search Method

To find and choose relevant research publications. Initial search codes of articles are: (Title-Abstracts-Key words ("subject choice") OR Title-Abstracts-Key words ("subject selection" OR "socioeconomic determinants" OR "institutional determinants" OR "Tertiary education" OR "Higher education") AND Title-Abstracts-Key words ("university related determinants"). The authors employed a two-stage search strategy for the study, which involved an initial search followed by the screening and selecting relevant articles.

1. Stage 1: Initial Search

The first stage was to search for literature relevant to the current topic. In this stage, the following steps were taken to gather a broad set of publications related to subject choice in higher education.

- (i) **Search Engines and other sources:** To identify the papers, a comprehensive search was conducted across multiple academic search engines, including JSTOR, Google Scholar, and scientific journals of different publishers, including Springer, Taylor and Francis, and Elsevier.
- (ii) **Search Terms:** For this study, various keywords and Boolean operators were used to cover various aspects of the topic, including socioeconomic and institutional determinants, such as "subject choice" AND "university

admission,” “socioeconomic factors” AND “subject selection,” and “institutional determinants” AND “higher education (Smela et al., 2023; Tedja et al., 2024).”

- (iii) **Inclusion Criteria:** This study focuses on some inclusion criteria including (a) studies published in peer-reviewed journals, (b) research focusing on socioeconomic factors (parental education, parental occupation, and parental income), and institutional factors that affect students’ subject choice in a university. (c) studies focused on qualitative, quantitative, or mixed-method research approach and (d) studies published in English between 2000-2022.
- (iv) **Results:** The search result found 73 publications, including books, journals, conference proceedings, and reviews.

2. Stage 2: Screening and Selection Process

- The second stage focused on refining the list of publications to those directly addressing the study’s objectives. This stage follows some steps, including
- (i) **Screening:** Titles and abstracts of the 73 publications were reviewed,
 - (ii) **Exclusion Criteria:** The researchers also followed some exclusion criteria like (a) studies that are not directly related to subject choice at university admission, (b) research focusing on general career choice or unrelated educational stages and (c) articles not published in English or studies lacking accessible full texts.
 - (iii) **Final Selection:** After a full-text review, 30 articles were identified as highly relevant to the research.

Table 1. Inclusion and Exclusion Criteria to Identify Relevant Literature

Criteria	Inclusion Criteria	Exclusion Criteria
Study Type	Peer-reviewed journal articles	Studies not published in peer-reviewed journals
Timeframe	Studies published between 2000-2022	Studies published before 2000 or after 2022
Language	Published in English	Articles not published in English
Study Focus	Studies focused on socioeconomic and institutional factors affecting subject choice at university admission	Studies that do not directly address subject choice at university admission
Research Approach	Qualitative, quantitative, or mixed-methods research approaches	Studies that do not focus on the socioeconomic and institutional factors affecting subject choice
Accessibility	Studies with accessible full-text	Articles lacking full-text access or with restricted access

Figure 1 presents the research framework of this study. This research framework outlines a systematic approach to conducting a literature review, ensuring the inclusion of high-quality, relevant studies. The process begins with a broad search for journal articles, followed by a careful screening of keywords and abstracts to identify potential

sources. The accepted papers are then analyzed in the results and discussion phase. This stage involves synthesizing the findings from the 30 selected papers, discussing key themes and insights, as well as drawing conclusions based on the literature.

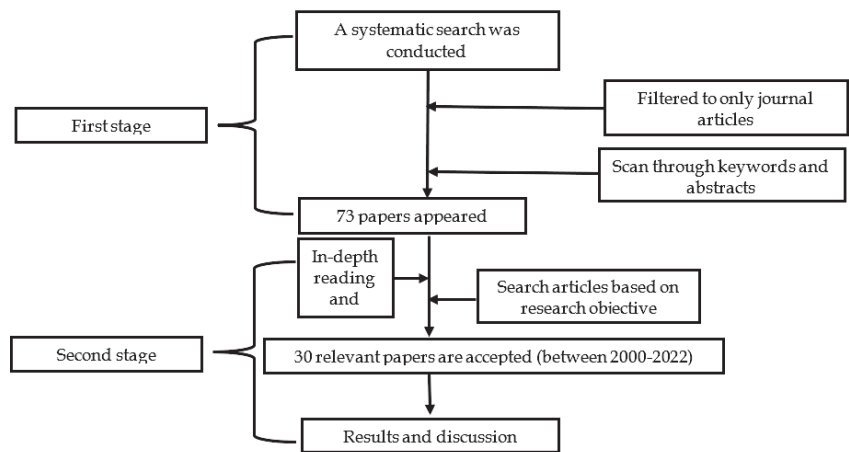


Figure 1. Research Framework of the Study

5. Analysis of Selected Literature

Essential information was gathered from each chosen study: authors, year of publication, methodology, socioeconomic and institutional influences, results, and limitations. The data analysis process in this review, with a systematic search, was designed to synthesize and interpret findings from the included studies to understand the role of socioeconomic and institutional determinants in subject choice at university admission. The analysis was conducted through the following structured steps: The selected 30 articles were analyzed systematically based on research design and key themes. At first, the researcher categorized the articles as quantitative (27 articles), qualitative (2 articles), or mixed-method/review (1 article) papers. Then the researcher identifies recurring themes related to socioeconomic and institutional determinants, such as (i) socioeconomic status, (ii) characteristics of institutions, (iii) quality of university, (iv) outcomes and benefits, (v) geographical determinants, (vi) price sensitivity and (vii) other determinants. Findings from the research design and thematic analyses were integrated to comprehensively understand how socioeconomic and institutional determinants influence subject choice at university admission. Finally, findings were synthesized to highlight the most influential factors in subject choice, ensuring a comparative analysis between studies.

6. Findings and Discussion

Study Characteristics

Thirty of the seventy-three studies that met the inclusion criteria are included in the review. The inclusion of three types of papers in the review was deemed essential: mixed methods (1), qualitative (2), and quantitative (21). All studies included in the review focused on subject choice at tertiary educational institutions based on socioeconomic and institutional determinants from the perspectives of both developed and developing countries.

Description of Themes

Seven key themes related to socioeconomic and institutional determinants encouraging subject choice at university were identified from the analysis of studies included in this review. The themes are (i) socioeconomic status, (ii) characteristics of institutions, (iii) quality of university, (iv) outcomes and benefits, (v) geographical determinants, (vi) price sensitivity and (vii) other determinants.

Table 2. Socioeconomic and Institutional Determinants

Factors	Authors
Socioeconomic Determinants for the Choice of a Subject	
<i>Socioeconomic Status</i>	
Parental Education	Brooks (2008), McMaster (2017), Ro et al. (2018), Sheng (2017), Jeffries et al. (2019), Hemsley-Brown (2015).
Parental Occupation	Mcmaster (2017), Mangan et al. (2010), Ro et al. (2018), Sheng (2017), Hemsley-Brown (2015)
Parental Income	Bock et al. (2014), Sheng (2017), Callender and Jackson (2008), McMaster (2017), Dilnot (2016), effries et al. (2019), Mangan et al. (2010), Whitehead et al. (2006)
Among socioeconomic determinants, parental education and parental income were the most frequently cited factors, both appearing in 40% of the articles.	
Institutional Determinants for the Choice of a Subject	
<i>Characteristics of University</i>	
Entry Requirements	Le, Robinson, et al. (2019), Le, Dobeles, et al. (2019)
Program Consistent	Bock et al. (2014), Thi and Thorpe (2015), Le, Dobeles, et al. (2019), Le, Robinson, et al. (2019), Whitehead et al. (2006)
<i>Quality of University</i>	
Reputation of University	Dunnett et al. (2012), Hemsley-Brown (2015), Azzone and Soncin (2019), Bock et al. (2014), Le, Dobeles, et al. (2019), Munisamy et al. (2014), Whitehead et al. (2006), Le, Robinson, et al. (2019), Pinxten et al. (2015), Robinson, et al. (2019)
Quality of Education	Whitehead et al. (2006), Bock et al. (2014), Le, Dobeles, et al. (2019), Le, Robinson, et al. (2019)
Teacher Expertise	Hemsley-Brown (2015), Le, Dobeles, et al. (2019); Le, Robinson, et al. (2019)
Course Prestige	Dunnett et al. (2012), Simoes and Soares (2010), Le, Dobeles, et al. (2019), Pinxten et al. (2015)

<i>Outcomes and Benefits</i>	
Career Prospects	Pinxten et al. (2015), Munisamy et al. (2014), Le, Dobeles, et al. (2019), Le, Robinson, et al. (2019), Whitehead et al. (2006)
Job Opportunity in the University Area	Azzone and Soncin (2019), Hemsley-Brown (2015), Pinxten et al. (2015)
<i>Geographical Determinants</i>	
Location of University	Simoes and Soares (2010), Le, Robinson, et al. (2019), Mangan et al. (2010) and Bock et al. (2014), Dunnett et al. (2012), Hemsley-Brown (2015), Le, Dobeles, et al. (2019)
Location of Home	Hemsley-Brown (2015), Munisamy et al. (2014), Azzone and Soncin (2019)
<i>Price Sensitivity</i>	
Cost of Study	Hemsley-Brown (2015), Briggs and Wilson (2007), Munisamy et al. (2014), Thi and Thorpe (2015), Le, Dobeles, et al. (2019), Callender and Jackson (2008)
Fear of debt	Hemsley-Brown (2015), Mangan et al. (2010), Callender and Jackson (2008)
<i>Other Determinants</i>	
University Facilities and Services	Thi and Thorpe (2015), Munisamy et al. (2014), Le, Dobeles, et al. (2019)
Information Sources	Thi and Thorpe (2015), Bock et al. (2014), Hemsley-Brown (2015), Le, Dobeles, et al. (2019), Briggs and Wilson (2007), Simoes and Soares (2010), Le, Dobeles, et al. (2019), Mangan et al. (2010)
Among institutional determinants, the quality of the university emerged as the most significant determinant, cited by 56% of the articles, highlighting its influence on students' subject choices.	

6.1. Socioeconomic Status

Socioeconomic status (SES), encompassing parental education, occupation, and income, significantly shapes students' higher education choices.

6.1.1. Parental Education

A long-standing association between parental education and children’s progression to higher education is evident in many countries worldwide (Brooks, 2008). Studies (McMaster, 2017; Ro et al., 2018; Sheng, 2017) stated that higher level parental education (particularly mothers’ highest qualification) positively affected STEM students’ probability of enrolling at prestigious universities. Similarly, they reported that students with higher-educated parents were more likely to pursue higher education, with a regression coefficient of 0.32 indicating a moderate positive relationship. On the contrary, Jeffries et al. (2019) stated that parental education was not a significant direct predictor for the choices of subjects. A study (Hemsley-Brown, 2015) explored that parental education may be a poor indicator for the choice of subject in a university.

6.1.2. Parental Occupation

Parental occupation was a strong predictor for the choice of subject at the tertiary level students. McMaster (2017) in his study revealed that, adolescents with parents in managerial or professional positions were 1.5 times more likely to pursue STEM fields compared to those whose parents held working-class jobs. On the contrary,

studies (Mangan et al., 2010; Ro et al., 2018) stated that social class as well as parental education, especially father's occupation, did not directly affect the choice of subject during university admission. On the other hand, Sheng (2016) in his study illustrated that there were no significant differences in the choice of subject between the students whose parents had different occupational backgrounds opposed by Hemsley-Brown (2015).

6.1.3. Parental Income

It was assumed that the family's income, especially parental income level and financial aid, would significantly influence students' choice of subject and university (Bock et al., 2014; Sheng, 2017). Callender and Jackson (2008) in their study stated that students from higher-income families were 20% more likely to attend top-tier universities and pursue more competitive subjects. However, students from lower-income families were often constrained by financial limitations, influencing their choice of subject and university. Besides this, they may be more inclined to avoid more risky subjects when considering outcomes and choose easier subjects (Dilnot, 2016; McMaster, 2017). On the contrary, some studies found no strong relation with parental income and the choices and chances of subject and university (Jeffries et al., 2019; Mangan et al., 2010; Whitehead et al., 2006). However, Hemsley-Brown (2015) noted a p-value of 0.07, suggesting that the relationship between parental income and subject choice was weak and statistically insignificant.

6.2. Characteristics of University

Characteristics of a university refer to the unique features and attributes that define the institution's academic environment, including factors such as entry requirements, program consistency and the overall structure of academic offerings.

6.2.1. Entry Requirements

Le, Robinson, et al. (2019) in their study stated that entry requirements were the most significant predictors for the subject, with a regression coefficient of 0.45, indicating a moderate positive relationship between entry requirements and subject choice. In these cases, the choices depend on the students' previous academic achievement. Similarly, Le, Dobeles, et al. (2019) in their study reported a positive correlation of 0.38 between academic achievements and students' subject selection, further confirming that higher academic performance increases the probability of entering competitive programs

6.2.2. Program Consistent

Program consistent was ranked as the most important and influential factor for subject choice. Studies stated that some variables make up this factor, like course content, duration, total number of credits, course flexibility, and so on, within the

program (Bock et al., 2014; Le, Dobebe, et al., 2019; Thi & Thorpe, 2015). Researchers also found in their studies that the choice of subject depends on academic motivation, which was central to issues related to course content, structure, and the organization of teaching. (Le, Robinson, et al., 2019; Whitehead et al., 2006). Le, Robinson, et al. (2019) emphasized the importance of program structure in guiding students' decisions, with 72% of students reporting that program consistency played a major role in their subject selection.

6.3. Quality of University

The quality of a university is a critical factor in students' subject and university choices, as it encompasses a range of characteristics that directly impact the academic experience and future career prospects. Key elements that define the quality of a university include its reputation, the quality of education provided, the expertise of the teaching staff, and the prestige of the courses offered.

6.3.1. Reputation of University

For choosing a subject, the university's reputation or public image plays a significant role. University reputation refers to the attributes that position an institution in a state of high esteem, regard, or prestige, as opposed to those linked to specific facilities or physical characteristics. Studies have consistently found that university reputation is a significant factor influencing students' decisions, with 68% of students considering it as a key reason for their subject selection (Dunnett et al., 2012; Hemsley-Brown, 2015). Similarly, most of the studies considered the reputation of the university as the most significant factor for the choices of the subject and university (Azzone & Soncin, 2019; Bock et al., 2014; Le, Dobebe, et al., 2019; Munisamy et al., 2014; Whitehead et al., 2006). On the contrary, Le, Robinson, et al. (2019) found no significant relationship with subject choices and their reputation.

6.3.2. Quality of Education

Whitehead et al. (2006) emphasized that students are primarily motivated by the academic quality and the teaching structure, with 82% of students in their study indicating that these factors were central to their subject decisions. Similarly, studies found that the course content and structure, and the way teaching was organized, etc., were the important factors that could motivate the students to choose a subject (Bock et al., 2014; Le, Dobebe, et al., 2019; Le, Robinson, et al., 2019).

6.3.3. Teacher Expertise

Hemsley-Brown (2015) found that students are highly influenced by the quality and reputation of faculty, with 70% of students in their study rating teacher expertise as a top factor in their decision-making process. Similarly, Le, Dobebe, et al. (2019); Le, Robinson, et al. (2019) explored academic components, including quality and

reputation, or expertise of academic teachers, including teaching styles and completing the course, etc. Played a vital role for the choice of subject in a university.

6.3.4. Course prestige

Dunnett et al. (2012), Simoes and Soares (2010) in their study found a positive relationship between course prestige and students' subject selection, with 65% of students agreeing that a prestigious course greatly influenced their choice, as it promised better career opportunities. Besides these, some other studies also found a positive relationship with the students' course prestige and subject choices (Le, Dobeles, et al., 2019; Pinxten et al., 2015).

6.4. Outcomes and benefits

Outcomes and benefits of choosing the right university and subject are far-reaching. They include enhanced career prospects, increased access to job opportunities, greater socioeconomic mobility, and academic and personal growth, all of which contribute to a successful and fulfilling future.

6.4.1. Career prospects

Dunnett et al. (2012) and Simoes and Soares (2010) found that, when choosing between subjects, the reputation of the course and the university were the most significant factors for students, as they reflect the students' career prospects. Specifically, 76% of students in their study reported that the prestige of the university and course strongly influenced their decision, as they associate these factors with better employment prospects and social standing. Besides these, some other studies also found positive relationship with career prospects and subject choices of the students (Le, Dobeles, et al., 2019; Pinxten et al., 2015).

6.4.2. Job Opportunity in the University Area

Study revealed that job opportunities in the university area were important for the choices of the university (Azzone & Soncin, 2019). However, Hemsley-Brown (2015) in his study explored that students with lower socioeconomic status searched for jobs to carry on their education compared to those with higher socioeconomic status. In their study, 65% of students stated that the availability of local job opportunities was a decisive factor in their choice of university. Moreover, the increasing job opportunities in urban areas were influencing the students to choose the subject at a specific university in those areas (Pinxten et al., 2015).

6.5. Geographical Determinants

Geographical determinants include factors such as the proximity of the university to a student's home, accessibility to transportation hubs like airports and train

stations, and the location of the university within a city or region. These factors significantly influence students' decisions regarding which university to attend, as convenience, travel costs, and access to local opportunities play a crucial role in their choices.

6.5.1. Location of University

Simoes and Soares (2010), Le, Robinson, et al. (2019), Mangan et al. (2010) and Bock et al. (2014) in their studies showed that geographical proximity was the most important choice factor for choosing a subject in higher education institutions. Though some students might be sensitive to a university's distance from their home, and some institutions were closer to airports and train stations than others, research has shown that geographic factors could potentially influence the decisions to choose a subject in a particular university close to their home (Dunnett et al., 2012; Hemsley-Brown, 2015; Le, Dobeles, et al., 2019).

6.5.2. Location of Home

Geographical proximity to home was a key factor affecting higher education choice for some students. Hemsley-Brown (2015) in his study found that applicants choose the subject in a university close to home if that university was similar in all other respects to universities further from home. In his study, 68% of students chose universities near home for convenience, prioritizing proximity over subject prestige. In this case, students focus on the location of university not the subject prestige. Furthermore, Munisamy et al. (2014) in their study explored that proximity to home was less significant for some students who chose universities based on a city location. However, Azzone and Soncin (2019) examined that there was no relationship between the location of home and the choices and enrollment of students.

6.6. Price Sensitivity

Price sensitivity refers to the degree to which the cost of education influences students' decisions regarding university and subject selection, including cost of study, fear of debt and so on.

6.6.1. Cost of Study

Hemsley-Brown (2015), Briggs and Wilson (2007), as well as Munisamy et al. (2014), in their studies, found that the cost of the study, including travel expenses, living expenses, tuition fees and accommodation, had a significant impact on the subject choice. Similarly, Thi and Thorpe (2015) and Le, Dobeles, et al. (2019) in their studies examined that cost had influenced their decisions about which university to apply and what to study. Callender and Jackson (2008) in their study revealed that the students from low-income families apply to a university with low living costs. However, researchers also found no significant relationship between cost factors

and students' subject choice, reporting a p-value of 0.08 (Azzone & Soncin, 2019).

6.6.2. Fear of debt

Hemsley-Brown (2015) in his study concluded that as the fees depend on the subject, students from lower income groups were more fearful of debt, and this factor frequently leads to students attending at any subject at any college or university closer to home, or not going to any university to avoid accumulating debt. On the contrary, Mangan et al. (2010) in their research further confirmed that, students from lower socioeconomic background were less likely to enroll in higher performing institutions, which led to longer-term benefits and better career prospects. Besides this, Callender and Jackson (2008) further explored that concerns about debt did not influence students' choice of subject or qualification, with 54% of students reporting that while debt was a concern, it did not deter them from pursuing their desired academic path.

6.7. Other Determinants

Other determinants refer to factors beyond the primary elements like cost, location, or academic reputation, that can influence a student's decision-making process regarding education including university facilities and services, sources of information and so on.

6.7.1. University Facilities and Services

Thi and Thorpe (2015) in their study explored that the university facilities and services, including library facilities, computer laboratories, entertainment facilities, health services, access to lecturers through the internet, on-campus accommodation, and career guidance, etc. had a positive impact on the choice of subject of the students. Their study revealed that 75% of students cited access to these resources as an important factor when choosing a university and subject. Similarly, Munisamy et al. (2014) and Le, Dobebe, et al. (2019) in their studies also found a positive relation with university resources, good facilities and choice of subject in a university.

6.7.2. Sources of Information

The sources of information provided for prospective students can be divided into online and offline categories. Thi and Thorpe (2015) and Bock et al. (2014) in their studies explained that offline information had a significant impact on the choices of subject, and it may be personal contact with alumni, opportunities to visit the university, events attended, face-to-face recruitment advice, and the recruitment consultant handbook. Similarly, Hemsley-Brown (2015) in his study focused on online information, such as university websites, social media, and online forums, noting that 68% of students reported that online resources played an important role in their university decisions. However, Le, Dobebe, et al. (2019) and Briggs and

Wilson (2007) in their studies found that both categories were important factors for the choices and enrollments of universities. Moreover, Simoes and Soares (2010) and Le, Dobebe, et al. (2019) found positive relation with information sources and university choices, opposed by Mangan et al. (2010)

7. Strengths and Limitations

To contextualize the strength of this study, the results and discussion sections would contribute to global readers. The results section presents information only on the review of existing literature from both developed and developing countries' perspectives. However, as only studies published in English were included, the researcher may have overlooked studies published in Bengali, which could enhance the insights of this review. The researchers could not include studies in Bengali due to a lack of Bengali language literature related to the chosen subject.

8. Recommendation

This study highlights the significant role of socioeconomic and institutional factors in shaping university students' subject choices. The findings of the study indicate that factors such as parental education, parental occupation, parental income, university characteristics, facilities, quality of education, information sources, price sensitivity, outcomes and benefits, and geographical factors are crucial, especially for universities and policymakers to consider in shaping admission strategies and educational policies.

(i) Policymakers: The findings of the study suggested that policymakers should acknowledge the socioeconomic context in which students make subject choices. Efforts to reduce financial barriers and enhance access to higher education, particularly for disadvantaged communities, can help alleviate the impact of socioeconomic factors such as parental income and education. Furthermore, the government could ensure that universities are equipped with adequate facilities, high-quality education, and information resources to meet students' needs. This will contribute to more equitable subject choice outcomes across socioeconomic groups. **(ii) Universities:** The findings underscore the importance of providing clear and accessible information regarding available subjects, their potential outcomes, and career benefits. University authorities could invest in information dissemination strategies that clearly outline the value and opportunities associated with each subject, helping students make informed decisions. Given the significance of university characteristics (e.g., reputation, facilities, and faculty expertise), universities should focus on enhancing their academic offerings and improving student support services to create a conducive environment for students to pursue

their desired fields. Universities could also consider geographical factors when expanding their reach, as regional accessibility can significantly influence subject selection. Efforts to increase accessibility to universities in rural areas or underserved regions should be a priority. (iii) Future Research: Future studies should explore the interaction between socioeconomic and institutional factors in greater depth, particularly focusing on gender differences, cultural influences, and regional disparities. Further investigation into how non-English literature, particularly from local and regional sources, influences subject choice could offer a more comprehensive view of the factors at play.

9. Conclusion

This study explored the key socioeconomic and institutional determinants of subject choice by reviewing the relevant literature. The findings of this study provide valuable insights into the key socioeconomic and institutional determinants that influence a student's choice to select a subject for studying at university. The findings indicate that factors such as parental education, occupation, income, university characteristics, facilities, quality of education, information sources, price sensitivity, outcomes and benefits, and geographical factors have significant impact on subject choice. These determinants are essential for universities and policymakers when designing admission strategies and educational policies. However, by incorporating these recommendations, both policymakers and universities can better support students in making informed, equitable choices about their university education. These initiatives would contribute to create a more inclusive and comprehensive educational environment that fosters academic achievement and societal development.

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