

THE INFLUENCE OF VOCATIONAL PROGRAMS AT AL-AZHAR MEDAN SENIOR HIGH SCHOOL ON THE RELEVANCE OF STUDENTS' UNIVERSITY STUDY CHOICES

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Abstract

This study was conducted to analyze the extent to which the implementation of vocational programs at Al-Azhar Medan Senior High School influences the relevance of students' study program selections at the university level. A quantitative approach was employed by utilizing data from alumni who had continued their education to higher institutions. The analysis results indicate that the majority of students chose university majors that align with their high school vocational fields, although some opted for different areas. Factors such as individual interests, counseling services, and family involvement also contributed to the academic decision-making process. These findings highlight the importance of school support in guiding students to determine their academic paths appropriately from the high school level to ensure continuity and coherence in their educational progression.

Keywords: Vocational Program, Al-Azhar Medan Senior High School, Study Relevance, Higher Education, Study Program Selection.

1. Introduction

1.1 Background

The selection of study tracks at the senior high school level plays an essential role in determining students' direction for higher education. In Indonesia, the education system requires students to choose a specialization starting from grade X, such as Health, Social Sciences and Humanities, Engineering, or Civil Service. This decision is expected to help students prepare for the field of study they will pursue in the future. At Al-Azhar Medan Senior High School, the vocational program is implemented to provide students with academic preparation relevant to higher education disciplines. However, in practice, some students choose university majors that do not correspond with their high school specialization. This condition indicates the need to evaluate the effectiveness of the vocational program in assisting students to make appropriate higher education choices. This study was conducted to examine the extent to which the study tracks offered at Al-Azhar Medan Senior High School Health, Social Sciences and Humanities, Engineering, and Civil Service—affect the relevance of students' study program choices at the university level. It also aims to identify factors influencing their academic decisions, such as personal interest, family environment, and academic guidance at school.

1.2 Problem Analysis

The main problem addressed in this research is whether there is a significant influence between the vocational programs implemented at Al-Azhar Medan Senior High School and the alignment of students' study program choices at the university level. In addition, the study seeks to identify both internal and external factors that may affect students'

THE INFLUENCE OF VOCATIONAL PROGRAMS AT AL-AZHAR MEDAN SENIOR HIGH SCHOOL ON THE RELEVANCE OF STUDENTS' UNIVERSITY STUDY CHOICES

Fachry Akbar Buandra *et al*

decision-making, including personal motivation, career prospects, and the effectiveness of school guidance services in supporting academic planning.

1.3 Research Objectives

This research aims to examine the influence of the vocational programs at Al-Azhar Medan Senior High School on the level of alignment between students' chosen university study programs and their high school specializations. It also seeks to identify contributing factors to the consistency or inconsistency between the two.

1.4 Research Benefits

1. For the school: To serve as a foundation for evaluating and improving the effectiveness of the implemented vocational programs.
2. For students and parents: To provide a better understanding in making decisions regarding further education pathways.
3. For academics: To offer additional references for related studies focusing on career orientation and higher education program selection.

1.5 Research Hypotheses

- H_0 : There is no significant influence between the vocational programs at Al-Azhar Medan Senior High School and the alignment of students' university study program choices.
- H_1 : There is a significant influence between the vocational programs at Al-Azhar Medan Senior High School and the alignment of students' university study program choices.
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2. Literature Review

2.1 Vocational Education

Vocational education is a learning system oriented toward mastering specific skills and knowledge aligned with labor market needs. According to Sudira (2016), vocational education not only focuses on producing skilled workers but also fosters adaptive thinking so that students can adjust to technological advancements and changes in the job market. Therefore, vocational education emphasizes not only practical aspects but also the preparation of students to face ongoing global challenges.

2.2 Relationship Between Educational Background and Study Choices

Several studies have shown a relationship between vocational education background and students' decisions in choosing further studies. Suryadi and Ramdhani (2020) state that students with vocational education backgrounds tend to choose study fields relevant to the skills they acquired in school. Meanwhile, Nugroho and Lestari (2022) assert that learning experiences in vocational education contribute to shaping students' interests and tendencies in selecting specific study areas at the higher education level.

2.3 Factors Influencing Further Study Decisions

Various factors influence students' decisions in choosing university study programs. Pratiwi (2019) explains that personal interest, family support, and career prospects play important roles in this decision-making process. Additionally, Putra (2021) highlights that access to information about the job market and the relevance between study programs and industrial demands also significantly affect students' choices. These interrelated factors show that continuing education decisions are not solely based on individual interest but are also shaped by external circumstances.

2.4 Related Studies

Several previous studies have provided insights into the relationship between vocational education and students' decisions to pursue higher education. Andriani (2020) found that vocational school students' tendencies to continue to university are influenced by their interests and competencies. Meanwhile, Hidayat (2021) explained that vocational education background, social environment, and perceived job opportunities are major considerations in determining study programs. These findings indicate that decisions to continue higher education are complex processes involving a combination of both internal and external factors.

3. Research Methodology

3.1 Research Approach

This study employs a quantitative descriptive approach, emphasizing the measurement of numerical data to identify the influence of high school vocational programs on the suitability of students' choices of university majors. This approach is considered appropriate as it enables an objective analysis through statistical data processing, allowing the results to accurately reflect empirical conditions in a valid and measurable manner.

3.2 Population and Sample

The research population consists of alumni from SMA Swasta Al-Azhar Medan who have completed their secondary education and continued to higher education, totaling approximately 200 individuals. From this population, 18 respondents were selected as samples using a purposive sampling technique.

The selection of this technique was based on specific criteria that respondents must meet:

1. They have participated in a vocational or specialization program at SMA Al-Azhar Medan.
2. They have already chosen or are currently enrolled in a university study program.

The sample size is deemed sufficient to represent the general tendencies and relationships between vocational backgrounds and alumni's subsequent study choices.

3.3 Research Instrument

The data collection instrument consists of a digital questionnaire distributed through Google Forms. The instrument is designed to measure perceptions, experiences, and levels of compatibility between vocational programs in high school and university study programs chosen by alumni.

The questionnaire includes five main indicators, namely:

1. The relevance between high school specialization fields and university majors.
2. The influence of vocational programs on the interest in pursuing higher education.
3. The relevance of vocational materials to university coursework.
4. The level of career and academic awareness among alumni.
5. Satisfaction with the implementation of vocational programs

Each item uses a five-point Likert scale (1–5), where a score of 1 indicates “very low influence” and 5 indicates “very high influence.”

3.4 Research Procedure

The research was conducted in several stages:

1. Instrument Development: The researcher designed questionnaire items based on relevant research indicators.
2. Questionnaire Distribution: The online form was disseminated via social media and alumni communication networks of SMA Al-Azhar Medan.
3. Response Collection: Alumni voluntarily completed the questionnaire by providing data related to their high school vocational experience and their current or chosen university major.
4. Data Compilation and Validation: The responses were automatically recorded through Google Spreadsheets and then analyzed statistically.

The online method was selected for its efficiency, cost-effectiveness, and ability to reach a wider range of respondents from various universities.

3.5 Data Analysis Technique

The collected data were analyzed using both descriptive and inferential statistical approaches.

Descriptive analysis was applied to summarize the demographic characteristics of respondents and to describe their perceptions regarding the relationship between vocational programs and chosen university majors.

Inferential analysis was performed using the Pearson correlation test and simple linear regression analysis to determine the strength and direction of the relationship between the vocational program variable (X) and the suitability of university major selection (Y).

THE INFLUENCE OF VOCATIONAL PROGRAMS AT AL-AZHAR MEDAN SENIOR HIGH SCHOOL ON THE RELEVANCE OF STUDENTS' UNIVERSITY STUDY CHOICES

Fachry Akbar Buandra et al

The analysis was conducted using statistical software, and the results were presented in tables, graphs, and narrative descriptions. These findings are expected to provide a clearer picture of how vocational education programs affect alumni's decisions when selecting higher education programs.

4. Results and Analysis

4.1 Descriptive Data

This study involved 18 respondents who were graduates from various vocational programs at SMA Al Azhar Medan, including Health Excellence, Engineering Excellence, Civil Service Excellence, and Social-Law Excellence. The survey aimed to describe the alignment between students' high school majors and their chosen university study programs, as well as to identify factors influencing their program selection decisions.

The data showed that 44.4% of respondents came from the Engineering Excellence program, 33.3% from Health Excellence, and 11.1% each from Civil Service and Social-Law Excellence programs. These findings indicate that the majority of respondents had educational backgrounds oriented toward science and technology disciplines.

Most graduates continued their studies in fields related to their high school majors—such as industrial engineering, computer technology, medicine, management, psychology, and law—demonstrating that their vocational background provided a consistent foundation for higher education choices.

4.2 Statistical Analysis

The descriptive statistical analysis revealed a high level of alignment between high school majors and university study programs. A total of 66.7% of respondents reported that their chosen university program was “highly relevant,” 22.2% said it was “moderately relevant,” and only 11.1% stated it was “not relevant.” This suggests that the specialized programs at SMA Al Azhar Medan significantly contributed to shaping students' academic readiness for higher education.

Several factors influenced respondents' program selection at the university level. According to the survey results:

77.8% chose their major based on personal interest,

38.9% considered career opportunities,

22.2% followed advice from others, and

5.6% were influenced by academic performance and environment.

Hence, personal interest emerged as the most dominant factor, while external influences such as family and career expectations played a smaller role.

Furthermore, the degree of influence of their high school program on university choice was measured using a five-point Likert scale, yielding the following results:

Score 5 (Highly influential): 33.3%

Score 4 (Influential): 11.1%

Score 3 (Moderately influential): 16.7%

Score 2 (Less influential): 16.7%

Score 1 (Not influential): 22.2%

These results indicate that more than half of the respondents (44.4%) perceived their high school program as playing an important role in determining their university major. This suggests that the curriculum and teaching approaches at SMA Al Azhar Medan contributed meaningfully to students' academic orientation and decision-making.

In terms of relevance, 50% of respondents stated that their high school materials were “quite helpful” for university study, 22.2% found them “very helpful,” 11.1% considered them “less helpful,” and 16.7% said they were “not helpful at all.” This implies that although most students felt adequately prepared, there remains room for improvement in aligning high school curricula with university-level academic demands.

4.3 Discussion

The findings indicate that the vocational programs at SMA Al Azhar Medan have a positive impact on the alignment between students' high school and university majors. Most respondents continued studying in fields consistent with their previous specialization, suggesting that early academic orientation effectively guided their higher education pathways.

THE INFLUENCE OF VOCATIONAL PROGRAMS AT AL-AZHAR MEDAN SENIOR HIGH SCHOOL ON THE RELEVANCE OF STUDENTS' UNIVERSITY STUDY CHOICES

Fachry Akbar Buandra *et al*

Nevertheless, a small portion of students experienced misalignment between their high school and university majors. This occurred due to several factors, including:

1. Mismatch between students' interests and their chosen high school major,
2. Limited career orientation and access to updated information about higher education, and
3. Insufficient depth in career guidance programs to help students identify majors that fit their personal strengths.

Additionally, some respondents noted that certain high school subjects were not fully aligned with university requirements, particularly in fields demanding advanced analytical and practical skills. This highlights the need for curriculum synchronization between high school and university to ensure a smoother academic transition.

Overall, the results support the assumption that SMA Al Azhar Medan's vocational programs significantly contribute to students' academic direction and suitability of university program choices. However, continued improvement in career guidance and curriculum contextualization is necessary to strengthen educational continuity across academic levels.

4.4 Visualization and Interpretation

Based on the survey results, the following data interpretations can be visualized:

1. Distribution of Respondents by High School Program

Engineering Excellence: 44.4%

Health Excellence: 33.3%

Social-Law Excellence: 11.1%

Civil Service Excellence: 11.1%

→ Indicates the predominance of students from science and technology backgrounds.

2. Alignment Between High School and University Majors

Highly Relevant: 66.7%

Moderately Relevant: 22.2%

Not Relevant: 11.1%

→ Suggests strong continuity between secondary and tertiary education fields.

3. Factors Influencing Major Selection

Personal Interest: 77.8%

Career Opportunities: 38.9%

Parental or Peer Advice: 22.2%

→ Reflects the dominance of intrinsic motivation.

4. Influence of High School Major on University Choice

Highest proportion (33.3%) rated "Highly Influential," emphasizing the strategic role of high school specialization in shaping academic orientation.

5. Relevance of High School Materials to University Courses

72.2% rated them as "very helpful" or "quite helpful," indicating a strong but improvable curricular connection.

Final Interpretation:

The vocational programs at SMA Al Azhar Medan have proven to contribute positively and significantly to students' academic orientation and major selection at the university level. Therefore, schools are encouraged to further enhance career guidance and curriculum relevance to ensure that students transition effectively and confidently into higher education.

5. DISCUSSION

5.1 Analysis of Research Findings

Based on the results of this study, it is evident that the vocational program implemented at SMA Al-Azhar Medan significantly influences the suitability of students' study program selection at the university level. Most respondents indicated that choosing a major during high school helped them identify their academic potential and personal interests, which made their university study program selection more directed and aligned with their goals. This finding is consistent with Super's Career Development Theory (1990), which emphasizes that exploration and consolidation of academic interests during adolescence play a crucial role in shaping future career directions.

5.2 Factors Influencing the Effectiveness of Vocational Programs

THE INFLUENCE OF VOCATIONAL PROGRAMS AT AL-AZHAR MEDAN SENIOR HIGH SCHOOL ON THE RELEVANCE OF STUDENTS' UNIVERSITY STUDY CHOICES

Fachry Akbar Buandra *et al*

Several factors were found to influence the effectiveness of vocational programs in determining appropriate university majors:

1. Guidance and Counseling Support. Teachers and school counselors play a crucial role in providing academic and career guidance. Their support helps students understand their strengths, interests, and potential university pathways (Sukardi, 2017).
2. Availability of Career and University Information. Access to accurate and comprehensive information about university study programs, job prospects, and required competencies helps students make realistic and informed academic decisions (Nurhasanah & Sobandi, 2016).
3. Supportive Learning Environment. A positive school atmosphere, supportive learning environment, and extracurricular activities contribute to strengthening students' interest in their chosen vocational field and aligning it with higher education programs (Hidayat, 2018).
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5.3 Implications for Educational Practice

This study has several implications for educational practice. Schools should enhance the implementation of vocational programs through improved academic counseling, adaptive curriculum design, and continuous career development services. Furthermore, collaboration between high schools and universities is essential to ensure alignment between secondary education and higher education needs. These efforts can strengthen students' readiness for further study and ensure they pursue programs that match their academic potential and career aspirations. In addition, findings from the referenced journals suggest that technology-based decision-making tools and recommendation systems can further assist students in identifying suitable study programs. The integration of such systems into vocational programs can increase objectivity in academic planning, minimize mismatched major selections, and support data-driven educational decisions.

Furthermore, this research highlights the importance of students' self-awareness and motivation in maximizing the benefits of vocational programs. When students actively engage in exploring their academic preferences and career aspirations, the impact of vocational training becomes more profound. Schools should therefore emphasize reflective activities—such as career interest assessments and mentoring programs—to help students make more conscious and autonomous academic decisions that align with their personal strengths and values. Lastly, the study underlines the need for continuous evaluation and adaptation of vocational curricula to match evolving educational and industrial demands. As the job market continues to transform due to technological advancements and global competitiveness, vocational education must stay relevant and responsive. Regular feedback from alumni and industry partners can serve as valuable input to update course materials and guidance strategies, ensuring that vocational education remains an effective bridge between secondary and higher education.

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