Human Behavior, Development and Society
E-ISSN 2651-1762, Vol 26 No 1, April 2025

Exploring University Choice Factors Among School Leavers in Selected Sri Lankan Districts: A Second-Order Confirmatory Factor Analysis

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Date Received: 22 January 2025 Revised: 28 March 2025 Accepted: 4 April 2025

Paper Type: Original Research

Abstract

Aim/Purpose: This study explored key factors influencing school leavers' selection of public universities in rural Sri Lankan districts. Grounded in Chapman's Model of Student College Choice and relevant economic decision-making theories, the variables that shape university selection were identified. It aims to provide policymakers and educational institutions with actionable insights to enhance enrollment strategies and improve access to higher education.

Introduction/Background: Higher education plays a crucial role in socio-economic development; however, Sri Lanka's Gross Enrollment Ratio remains low compared to that of other middle-income Asian nations, limiting human capital growth. Although public universities have expanded open and distance learning programs, rural enrollment remains low due to sociocultural, economic, and institutional barriers.

Methodology: We conducted a cross-sectional survey to analyze the factors influencing university choice among school leavers in four economically disadvantaged districts: Badulla, Matale, Monaragala, and Rathnapura. The target population consisted of school leavers who had completed the General Certificate of Education Advanced Level examination. A stratified random sampling method was used to ensure representation across different socioeconomic backgrounds. A total of 300 self-administered questionnaires were distributed, of which 239 were fully completed. After data screening, 201 valid responses were retained, with 38 responses excluded due to missing data or response biases (e.g., extreme uniformity in unrelated questions). An Exploratory Factor Analysis was conducted using a statistical software package to identify latent constructs underlying the observed variables, retaining factors with loadings above 0.50. Confirmatory Factor Analysis was performed using AMOS Version 23 to confirm the factor structure, assess model fitness, and establish construct validity. Structural Equation Modeling was then employed to test hypothesized relationships between latent constructs and observed variables.

Findings: Exploratory Factor Analysis was conducted to identify key underlying factors influencing university selection. Out of 26 initial variables, eight were excluded because their factor loadings were below 0.50, leaving 18 variables retained for further analysis. The Kaiser criterion (eigenvalues > 1.0) and Principal Component Analysis with Varimax rotation were employed to extract and interpret the factors. This analysis identified five key constructs underlying university selection: Student Characteristics, University Image, Fixed University Characteristics, University Communication Efforts, and Influence of Significant Persons. Structural Equation Modeling provided further support for these findings, demonstrating that Student Characteristics had the strongest effect on university selection ($\gamma = 0.95$, $p < 0.001$). This construct included factors such as a student's interest in higher education, career aspirations, and expectations of future job opportunities. Notably, nearly 50% of the surveyed students belonged to lower-middle-income households, highlighting the critical role of higher education in providing socioeconomic mobility and influencing university selection decisions.

The University Image construct also played a significant role ($\gamma = 0.50$, $p < .01$), with 83% of respondents preferring public universities due to their perceived reputation and better career prospects compared to private institutions. Fixed University Characteristics—including factors such as location, transportation costs, and cost of living—exerted a moderate effect on university choice ($\gamma =$

0.34, $p < .05$). These logistical and financial concerns were particularly relevant for students from rural areas, where accessibility remains a critical barrier to higher education.

Additionally, University Communication Efforts ($\gamma = 0.34$, $p < .05$) were found to be an important determinant of university selection. Outreach efforts such as open days, social media engagement, and career guidance seminars played a crucial role in bridging the informational gap, particularly in underprivileged districts where students have limited exposure to higher education opportunities. Lastly, the Influence of Significant Persons (e.g., peers, teachers, and family members) had a relatively minor impact ($\gamma = 0.14$, $p = .08$), suggesting that while external influences shape initial perceptions, students' intrinsic motivations and institutional factors are more decisive in final university selection.

Contribution/Impact on Society: This study provides empirical evidence on the key factors influencing university choice in economically disadvantaged districts of Sri Lanka, offering valuable insights for policymakers, universities, and education stakeholders. A key contribution of this study is its emphasis on socioeconomic mobility through education. With nearly 50% of surveyed students from lower-middle-income households, higher education plays a vital role in breaking cycles of poverty and fostering long-term economic development. Furthermore, the study underscores the underutilization of open and distance learning systems, despite their potential to increase accessibility for students in remote areas.

Recommendations: By implementing data-driven policies based on these findings, Sri Lanka can improve its Gross Enrollment Ratio, strengthen its skilled workforce, and drive national progress in the global knowledge economy.

Research Limitation: This study was limited to four rural districts, which may affect its findings' generalizability. Survey distribution challenges, language barriers, and non-response bias could have influenced the results.

Future Research: Future studies should expand their samples to include urban and rural areas for broader applicability. Longitudinal research tracking students' university and career outcomes would provide deeper insights. Investigating technology adoption in open and distance learning and assessing financial aid and career counseling programs could offer practical policy recommendations.

Keywords: *University choice, higher education, rural students, Sri Lanka*

Introduction

The global economy is undergoing a major shift toward Asia, now the largest trading region in the world. This transition is fueled by advancements in labor, capital, and technology, which have spurred significant economic growth in the region. The International Monetary Fund emphasizes the critical role of a robust knowledge economy in sustaining this growth. As economies expand and populations grow wealthier, the demand for higher education has surged, particularly in Asia. By 2021, one-third of all higher education students globally were enrolled in Eastern and Southeastern Asia. Projections suggest that by 2040, global enrollment will reach 600 million, with over 60% of students located in Asia. Countries like India are making substantial efforts to meet this demand, aiming to double their Gross Enrollment Ratios (GER) in higher education to 50% by 2035 (Misra & Pachauri, 2025). These trends underscore the importance of higher education in fostering economic development and competitiveness.

Despite this regional growth, Sri Lanka significantly lags behind its neighbors in both enrollment rates and institutional capacity. In 2020, Sri Lanka's GER in tertiary education was just 20%, one of the lowest in Asia (UNESCO, 2023). Several factors have contributed to this disparity, including financial barriers, cultural perceptions of higher education as inaccessible, and a preference among school leavers for non-university career paths. Additionally, Sri Lanka's higher education system relies heavily on conventional learning frameworks, with only one institution offering Open and Distance Learning (ODL). By contrast, many countries in the region have successfully leveraged ODL to improve access

to higher education. For example, China achieved a GER of 60.2% in 2023, and 25% of its graduates were expected to come from ODL systems (Zhang, 2023).

While extensive research has examined factors influencing university selection globally and within Sri Lanka, there remains a knowledge gap in understanding how economically disadvantaged rural students navigate these choices, particularly in a system with limited ODL opportunities. Existing studies have primarily focused on urban students or generalized national trends, leaving a lack of nuanced insights into regional disparities.

In this study, factors were examined that influence the university chosen among Sri Lankan school leavers, with a focus on public universities in economically disadvantaged rural districts. It employed Chapman's (1981) model of student college choice as its primary theoretical framework. This model identifies key determinants of university choice, including student characteristics (academic achievement, socio-economic background) and external influences (institutional reputation, cost, and marketing efforts). Structural Equation Modeling (SEM) was employed to investigate how variables such as academic standards, economic considerations, and career expectations interact to shape university preferences.

Geographical Disparities in Higher Education Access

Sri Lanka faces significant geographical disparities in access to higher education. Urban centers like Colombo are home to five national universities and several other higher education institutions, offering a wide range of programs and facilities. By contrast, rural districts such as Monaragala lack national universities entirely, creating significant barriers for students in these areas. Economically disadvantaged districts, such as Badulla and Ratnapura, face similar challenges. In these regions, only three out of ten advanced-level students have an opportunity to attend university, as compared to much higher enrollment ratios in more developed areas. These geographical imbalances exacerbate existing inequalities and limit opportunities for students from rural and underprivileged backgrounds.

Addressing these disparities requires targeted policies to improve accessibility and equity in higher education. Understanding the factors that influence university choice is critical not only for increasing enrollment rates, but also for aligning educational offerings with labor market needs. Beyond student challenges, universities, employers, and policymakers play a crucial role in shaping higher education access and outcomes. Universities must adapt their programs to meet evolving job market demands, while policymakers need to address systemic barriers that hinder equitable access to education.

Literature Review

To understand the complex dynamics influencing university choice, this study drew on various theoretical frameworks from behavioral, economic, and marketing perspectives. These frameworks offered valuable insights into the interplay of academic, financial, and cultural factors that shape student preferences. Behavioral models, such as the Theory of Planned Behavior (Ajzen, 1991) and the Expectancy-Value Theory (Eccles et al., 1983), emphasize the role of attitudes, social norms, and perceived challenges in decision-making. The Theory of Planned Behavior highlights how students' intentions are shaped by their attitudes toward higher education, societal expectations (e.g., family influence), and confidence in overcoming barriers such as financial constraints or geographical limitations. In Sri Lanka, these factors are particularly relevant due to the strong influence of familial and cultural values on students' aspirations.

In the context of this study, these theoretical constructs were empirically examined through factor analysis, where attitudes toward higher education, perceived financial constraints, and social influences were manifested as latent constructs derived from observed survey responses. For example, students' perceptions of affordability, parental encouragement, and perceived career benefits can cluster into distinct factors that shape university selection. Additionally, while behavioral models focus on individual decision-making, they often have overlooked systemic constraints, such as the limited number of university seats in Sri Lanka's merit-based system. This study integrated these

perspectives to uncover the key underlying dimensions influencing university choice, thus bridging psychological theories with an empirical factor-analytic approach.

Marketing frameworks, including Consumer Behavior Models (Kotler & Keller, 2012) and Brand Equity Models (Aaker, 1991), have examined how universities attract students through branding and outreach efforts. In Sri Lanka, public universities have dominated the higher education landscape, and their branding efforts have been minimal. However, marketing still occurs indirectly through university rankings, alumni networks, and informational campaigns. These models provide valuable insights into how institutions communicate their value propositions to prospective students, though they may have limited applicability in centralized admission systems where students have less agency in the selection process.

Theories of social capital (Coleman, 1988) have explored the role of social networks, peer influence, and family expectations in shaping educational decisions. In Sri Lanka, rural students often rely heavily on close-knit community networks for guidance, while urban students may have access to more diverse information sources. This disparity highlights how social capital can both empower and constrain student choices. However, these theories often overlook the impact of regional inequalities and systemic barriers on the effectiveness of social networks in facilitating access to higher education.

Economic perspectives, such as Human Capital Theory (Becker, 1964), focus on the cost-benefit analyses that underlie university choice. While Sri Lanka's tuition-free system reduces direct costs, indirect expenses such as living costs and opportunity costs remain significant barriers, particularly for students from rural and economically disadvantaged backgrounds. Financial aid models, although relevant in many global contexts, have limited applicability in Sri Lanka, where scholarships are often merit-based rather than need-based, which further marginalizes economically disadvantaged students.

Chapman's (1981) model is well-suited for studying university choice in Sri Lanka. It identifies key determinants such as academic reputation, institutional characteristics, and external influences. In the Sri Lankan context, socio-economic background, academic performance, and institutional reputation are critical factors. However, the model could benefit from adaptation to include systemic barriers, such as regional disparities in educational infrastructure and the limited adoption of ODL systems.

While extensive literature exists on the determinants of university choice globally, significant gaps remain in understanding how these factors interact in specific socioeconomic and cultural contexts. Studies have largely focused on Western higher education systems (e.g., Perna, 2006; Hemsley-Brown & Oplatka, 2006) and market-driven models of student decision-making (Maringe, 2006), often neglecting centralized and merit-based systems like Sri Lanka's.

Similarly, while research on Sri Lankan university choice exists, much of it remains fragmented or outdated. The majority of studies emphasize broad socio-economic challenges (e.g., De Silva, 2023; Premarathne et al., 2016) rather than empirically examining how specific psychological, economic, and marketing-based factors interact in students' decision-making processes. This study fills a gap by integrating behavioral, economic, and marketing perspectives within an empirical factor-analytic framework to systematically identify the key constructs that shape university selection in Sri Lanka.

Based on the literature review and the unique context of Sri Lanka, the following hypotheses were formulated to explore the research question: *What are the underlying latent constructs that influence students' university selection decisions in Sri Lanka?* Based on the literature survey and the specific context of Sri Lanka, the following hypotheses were developed:

1. H_1: Academic reputation and perceived quality of education significantly influence students' university choice.
2. H_2: Financial considerations, despite the absence of tuition fees, play a role due to living expenses and potential financial aid.
3. H_3: Geographical proximity and institutional facilities are crucial determinants in the selection of a university.
4. H_4: Social and cultural influences, including family expectations and peer advice, significantly affect students' decisions.

5. H_5: Effective communication and information delivery by universities are key factors in attracting students.

These hypotheses aimed to investigate the specific factors that drive university choice among Sri Lankan students, providing policymakers and educational institutions with insights to enhance their strategies and improve enrollment rates.

Methodology

A quantitative research design was employed to explore underlying factors influencing university selection among students. Specifically, factor analysis was utilized to identify latent constructs by examining patterns among observed decision-making variables, enabling data reduction and construct identification. The research followed a cross-sectional survey approach, conducted across four economically underdeveloped districts in Sri Lanka: Badulla, Matale, Monaragala, and Rathnapura. These districts were selected based on their low economic rankings (Abeynayake et al., 2023).

The target population included school leavers who had completed the General Certificate of Education Advanced Level examination within the Sri Lankan education system. Data collection occurred in May 2024, approximately one month after examinations, allowing participants to reflect on their higher education choices. A printed questionnaire, translated into Sinhala, Tamil, and English, was distributed to accommodate language preferences.

A stratified random sampling method was employed to ensure representative coverage of subgroups within the population. The strata were based on the urban-rural classification of school locations, a critical factor in understanding disparities in university selection. This method enabled the capture of diverse perspectives and experiences. A total of 300 questionnaires were distributed, and 239 fully completed responses were received. After data screening, 201 valid responses were retained. Responses exhibiting inconsistencies, such as extreme uniformity across unrelated questions, were excluded to maintain data integrity and accuracy. Items showing significant deviations from normality or poor reliability were also removed.

The survey questionnaire was systematically developed based on Chapman's (1981) Model of Student College Choice and relevant literature on university selection factors (e.g., Ajzen, 1991; Becker, 1964; Eccles et al., 1983). The development process followed a structured approach to ensure content validity, which included item generation, domain definition, and expert validation. A table of specification (included in Appendix 1) provides a detailed mapping of: Each construct and its corresponding items, operational definitions, and supporting references for content validity.

The questionnaire comprised two sections:

1. Demographic Information: This section included ten questions addressing participants' profiles, such as educational qualifications, family income, and geographic location. The scales used were adapted from the Central Bank of Sri Lanka and the Department of Education. These variables were essential for analyzing the influence of socioeconomic factors on university choice.

2. Likert Scale Questions: The items in this section were designed to evaluate factors influencing university selection, including student characteristics, aspirations, external influences, and institutional features. Responses were rated on a 10-point Likert scale ranging from "*least important*" to "*exceptionally important*." The questionnaire was validated through a pilot test and expert feedback to ensure reliability (DeVellis, 2016).

Data Analysis

Data analysis involved multiple steps:

1. Descriptive Analysis: Initial descriptive statistics summarized participant demographics and response patterns using a statistical software package.

2. Reliability Analysis: Cronbach's alpha was calculated to evaluate the internal consistency of survey items.

1. Exploratory Factor Analysis (EFA): This identified key factors with loadings above .50.

2. Structural Equation Modeling (SEM): Using AMOS Version 23, SEM tested relationships between observed and latent variables, offering a detailed understanding of factors influencing university choice. Confirmatory Factor Analysis (CFA) was used to validate model fitness and construct validity (Byrne, 2001; Kline, 2015).

These methodological steps ensured a rigorous analysis, producing reliable and actionable insights into university selection in Sri Lanka.

Results and Discussion

Table 1 summarizes the respondents' demographic and educational characteristics. Most participants were from Matale (34.3%), followed by Badulla (26.4%), Monaragala (21.8%), and Rathnapura (17.6%). The majority (66.9%) fell within the 19–20 age range, typical for students completing Advanced Level (A/L) examinations in Sri Lanka.

Table 1 *Demographic Profile of Candidates* (n=239)

Features		Count	Percentage(%)
District (where you live)	Badulla	63	26.4
	Monaragala	52	21.8
	Rathnapura	42	17.6
	Matale	82	34.3
Age	19–20	160	66.9
	21–22	72	30.1
	23–24	7	2.9
Gender	Male	53	22.2
	Female	181	78.8
Highest Academic	Other	19	7.9
Qualification	Sat for Advanced Level Exam	157	65.7
	Passed Advanced Level Exam	63	26.4
Approximate Distance to	< 1 km	16	6.7
Main Town	1–2 km	16	6.7
	3–5 km	44	18.4
	6–10 km	70	29.3
	10–20 km	48	20.1
	20 km<	45	18.8
Approximate Distance to	< 1 km	22	9.2
Nearest Public University	1–2 km	27	11.3
from Your Home	3–5 km	54	22.6
	6–10 km	117	49.0
	10–20 km	7	2.9
	20 km<	12	5.0
AL Subject Stream	Bio science	29	12.1
	Mathematics	22	9.2
	Commerce	41	17.2
	Arts	110	46.0
	Technology	37	15.5
University Preference	Government Universities	199	83.3
	Semi Government Universities	11	4.6
	Private Universities	11	4.6
	Foreign Universities	18	7.5
Main University Disciplines	Humanities	10	4.2
	Social Science	15	6.3
	Natural Science	1	0.4
	Engineering and Technology	52	21.8
	Business and Management	43	18.0
	Medicine and Health Science	26	10.9
	Education or Primary Education	14	5.9

	Arts and Design	30	12.6
	Law and Legal Studies	36	15.1
	Agriculture and Environmental Studies	12	5.0
Monthly Family Income	<Rs. 17,000	21	8.8
	Rs. 17,000–27,000	37	15.5
	Rs. 27,000–56,000	113	47.3
	Rs. 56,000–200,000	63	26.4
	Rs. 200,000 <	5	2.1

Academically, 65.7% of respondents had sat for their A/L exams and 26.4% had completed them, placing them at or near university entry level. Over 70% resided in rural areas distant from district capitals, with 60% living near public universities, indicating reasonable access to higher education. For subject streams, Arts and Humanities dominated (46.0%), followed by Commerce (17.2%), with Biosciences, Mathematics, and Technology making up the rest. These figures aligned with national trends, with over half of school leavers choosing Arts. Government universities were preferred (83.3%), reflecting the appeal of Sri Lanka's free higher education system, particularly in rural areas.

Students' intended fields of study showed a balanced distribution across disciplines, except for lower representation in natural sciences. Family income data revealed that 47% of respondents fell within the Rupees 27,000–56,000 range, indicative of lower-middle-income status, highlighting the socioeconomic challenges influencing their education choices.

To identify key variables influencing student university choices, a Structural Equation Model was utilized. The process began with Exploratory Factor Analysis using 26 variables. Principal Axis Factoring (PAF) with varimax rotation was applied, as it is more robust against normality violations compared to Principal Component Analysis and better suited for identifying underlying factors. Unlike PCA, which focuses on variance retention for dimensionality reduction, Principal Axis Factoring aims to uncover latent structures among variables.

Eight variables were excluded due to factor loadings below the 0.50 threshold, leaving 18 variables for SEM analysis. A PAF approach with varimax (orthogonal) rotation was used to derive the factor structure. Varimax rotation was chosen to maximize the interpretability of factors by maintaining orthogonality, aligning with theoretical expectations that the extracted constructs remain distinct. While oblique rotation assumes factor correlation, preliminary analyses indicated minimal inter-factor correlations, justifying the use of varimax for a clearer and more meaningful factor solution. This approach, based on established guidelines for factor analysis (Hair et al., 2019), ensured construct validity, internal consistency, and model reliability. By removing weakly loading items, the final model demonstrated a stronger factor structure, improved explanatory power, and better overall fit for hypothesis testing.

Table 2 highlights the suitability of the data for factor analysis through Bartlett's Test of Sphericity ($\chi^2 = 2175.94$, $df = 171$, $p < .05$) and the Kaiser-Meyer-Olkin (KMO) measure (0.809). The significant Bartlett's Test result confirmed correlations among variables, while the KMO value demonstrated strong data adequacy for factor analysis.

Table 2 *KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**.809**
Bartlett's Test of Sphericity	Approx. Chi-Square	2175.068
	df	171
	Sig.	.000

Table 3 outlines EFA results, extracting five factors based on Kaiser criterion (eigenvalues > 1.0).

Table 3 *Exploratory Factor Analysis Results*

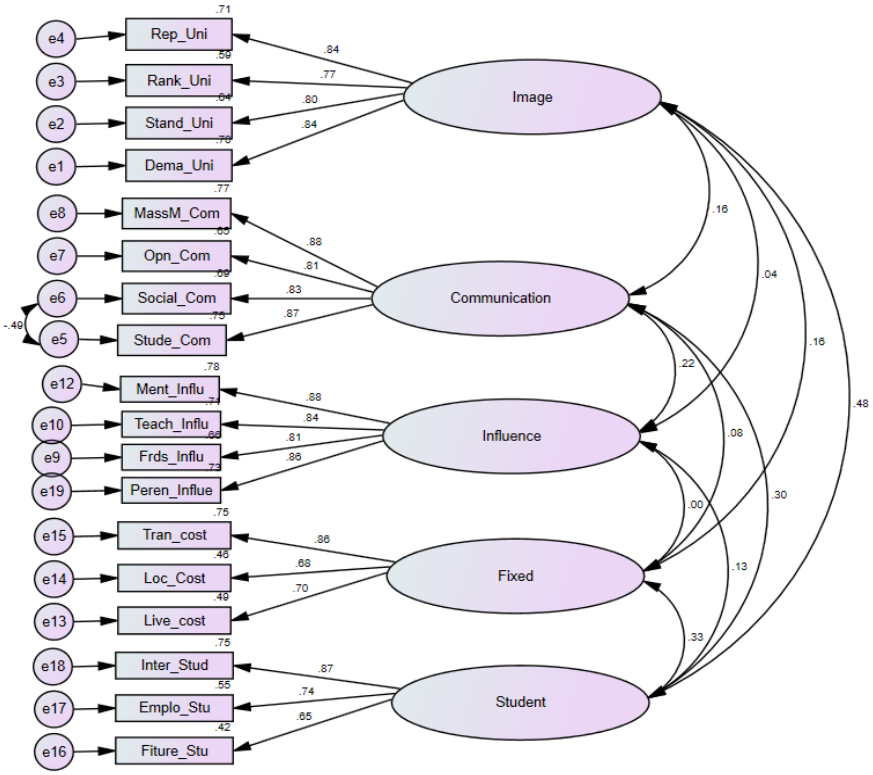
Total Variance Explained									
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.999	26.313	26.313	4.661	24.534	24.534	3.224	16.971	16.971
2	3.355	17.660	43.972	3.042	16.010	40.544	2.986	15.715	32.686
3	2.457	12.931	56.904	2.164	11.392	51.936	2.781	14.636	47.322
4	2.030	10.687	67.590	1.649	8.677	60.613	1.763	9.278	56.600
5	1.274	6.707	74.297	.907	4.774	65.387	1.670	8.787	65.387

Extraction Method: Principal Axis Factoring

These factors explain 74.297% of the initial variance, which decreases slightly to 65.387% post-rotation. The rotation redistributes the explained variance more evenly: the first factor accounts for 16.971%, the second 15.715%, and so on. The balanced distribution aids interpretability, showing that the dataset's structure was well captured by these five factors. The final factors and their cumulative variance representation affirm its robustness, providing a foundation for subsequent SEM analysis.

After conducting Exploratory Factor Analysis, the Structural Equation Model was implemented by exporting the EFA outcomes directly to AMOS with the appropriate plug-in. The measurement model of the SEM in AMOS is depicted in Figure 1.

Figure 1 *Measurement Models for CFA*



The model's fitness was evaluated using Maximum Likelihood estimation. A total of 2,000 bootstrapping samples were utilized to enhance the accuracy and robustness of parameter estimation in SEM. The AMOS output revealed the following characteristics of the model: No. of variables: 47, No. of observed variables: 18, No. of unobserved variables: 29, No. of exogenous variables: 24, and No. of endogenous variables: 23.

Following the guidelines outlined by Awang (2015), the first step involved identifying observations that were farthest from the centroid using Mahalanobis distance. To address issues related to normality, 38 outliers were identified and subsequently removed from the dataset. As a result, the dataset was refined to include 201 valid responses, ensuring conformity to the assumptions of normality in subsequent analyses. The measurement model tested for item redundancy by inspecting the Modification Indexes of the output. A correlated error above 10.0 between the e6 and e5 items was noted, which are constructs of University Communication with students. Therefore, these two correlated measurement errors of redundant items were considered as free parameters, and the final measurement model was developed.

Following the finalization of the measurement model, its fitness was rigorously assessed using various fit indices, encompassing absolute fit, incremental fit, and parsimonious fit criteria. Table 4 presents a comprehensive overview of these fitness measures and their respective levels of acceptance.

Table 4 *Model Fit and the Level of Acceptance*

Category	Index	Reported Value	Acceptable Threshold
1. Absolute Fit	Chi-Square (CMIN/χ^2)	198.708	p > .05 (ideal, but sensitive to sample size)
	DF (Degrees of Freedom)	129	-
	CMIN/DF (Chi-Square/df)	1.540	< 3.0 (Good Fit)
	RMSEA (Root Mean Square Error of Approximation)	.052	< .08 (Good Fit)
	GFI (Goodness-of-Fit Index)	.906	> .90 (Acceptable Fit)
	RMR (Root Mean Square Residual)	.066	< .05 Preferred
2. Incremental Fit	AGFI (Adjusted Goodness-of-Fit Index)	.90	> .90 (Acceptable Fit)
	CFI (Comparative Fit Index)	.965	> .90 (Good Fit)
	TLI (Tucker-Lewis Index)	.958	> .90 (Good Fit)
	NFI (Normed Fit Index)	.907	> .90 (Good Fit)
3. Parsimonious Fit	Chi sq/*df* (CMIN/DF)	1.540	< 3.0 (Good Fit)

1. Absolute Fit: This category evaluates how well the model fits the observed data without considering model complexity. The Chi-square statistic yielded a value of 198.708, which, while ideally expected to have a non-significant *p*-value (> .05), is known to be highly sensitive to sample size. For larger samples, Chi-square often becomes significant regardless of model fit, making it less reliable as a standalone metric. The CMIN/DF (Chi-Square/*df*) ratio of 1.540 falls well within the acceptable range (< 3.0), indicating a good model fit. Additionally, the Root Mean Square Error of Approximation (RMSEA) was .052, which meets the criterion for a good fit (RMSEA < .08). The Goodness-of-Fit Index (GFI) was .906, exceeding the acceptable threshold (> .90). However, the Root Mean Square Residual (RMR) was .066, which was slightly above the preferred value (< .05), suggesting some room for improvement in residual discrepancies.

2. Incremental Fit: This category assesses the improvement in fit resulting from adding more parameters to the model. The Adjusted Goodness of Fit Index (AGFI) was .90, meeting the acceptable threshold (> .90). Additionally, the Comparative Fit Index (CFI) was .965, the Tucker-Lewis Index (TLI) was .958, and the Normed Fit Index (NFI) was .907—all of which indicate a good model fit as they

exceed the recommended threshold (> .90). These results demonstrate that the model performed well in capturing incremental improvements.

3. Parsimonious Fit: This category evaluates the balance between model fit and simplicity. The Chi-Square divided by Degrees of Freedom (CMIN/DF) ratio was 1.540, well below the threshold of 3.0, indicating an appropriate balance between model complexity and fit quality. This suggests that the model was neither overly simplistic nor unnecessarily complex, making it a well-optimized fit.

Overall, the measurement model demonstrated satisfactory fit across all three categories, meeting or exceeding the predefined acceptance criteria. This comprehensive evaluation provides confidence in the measurement model's reliability and validity for further analysis and interpretation. Its validity and reliability were further scrutinized through an examination of convergent validity and the reliability of all constructs. Table 5 illustrates the convergence of these constructs, with both the average variance extracted (AVE) and composite reliability (CR) values meeting established thresholds. Notably, all AVE values exceeded .50, indicating sufficient reliability in measuring each construct.

Additionally, composite reliability was confirmed, as all CR values surpassed the minimum requirement of .60, further bolstering the model's reliability. Construct validity was rigorously assessed through an evaluation of fitness indexes, as detailed above in Table 4. These indexes represent various aspects of model fit, including absolute fit, incremental fit, and parsimonious fit criteria. The results demonstrated that all fitness indexes met or exceeded accepted levels of fit, providing strong evidence in support of construct validity. Furthermore, Table 5 presents the confirmatory factor analysis report, providing additional insights into the model's validity. Following a thorough examination, redundant tests were conducted to ensure the model's robustness.

Table 5 *Confirmatory Factor Analysis Report*

Construct	Item Code	Factor Loading	Cronbach's Alpha	CR (Min. .60)	AVE (Min. .50)	MSV
Student Characteristics	Sinterest	.867	.792	.800	.575	.229
	SPromotejob	.744				
	Scareer	.648				
Fixed University Characteristics	UniTransport	.865	.787	.795	.567	.109
	UniLocation	.678				
	UniCCOL	.702				
Significant persons	Imentors	.883	.911	.911	.719	.048
	ITeachers	.842				
	IFriends	.810				
	Iparent	.856				
University effort to Communication	Mmassmedia	.880	.901	.911	.719	.088
	Mopendays	.809				
	Msocialmedia	.833				
	Munistudents	.868				
University Image	UniReputation	.845	.882	.887	.662	.229
	UniRanking	.768				
	UniStanders	.800				
	UniDemand	.839				

Note. CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance.

To ascertain the discriminant validity of the constructs, Table 6 presents the Discriminate Validity Index. Notably, the diagonal values (square roots of AVE) of each construct were found to be higher than the correlations between constructs, suggesting successful discrimination among the constructs within the measurement model.

Table 6 *Discriminant Validity Index*

	Fixed University Characteristics	University Image	University Effort to Communicate	Significant Persons	Student Characteristics
Fixed University Characteristics	.753				
University Image	.162	.814			
University Effort to Communicate	.084	.164	.848		
Significant Persons	.005	.038	.219	.848	
Student Characteristics	.330	.479	.297	.127	.758

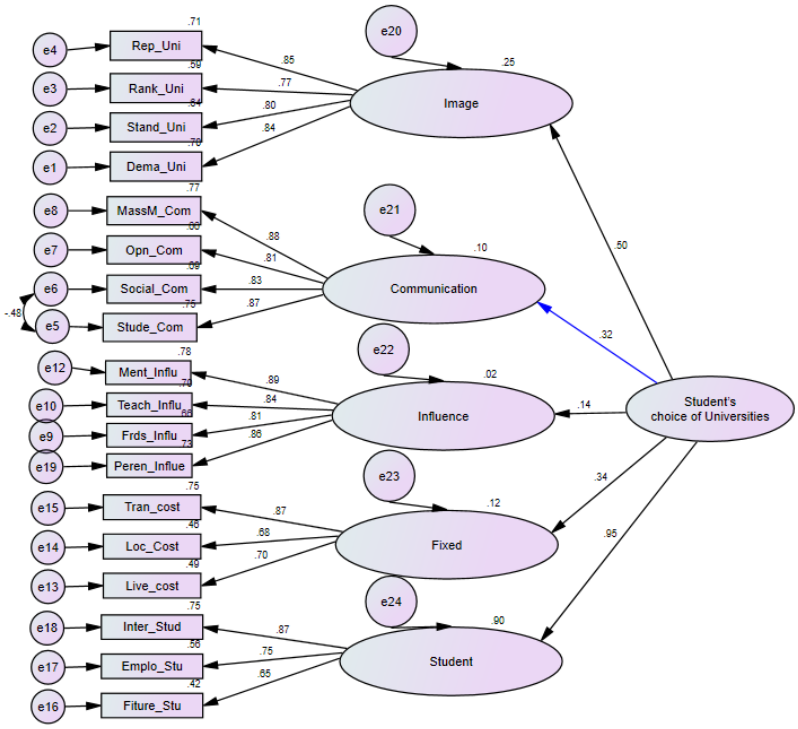
Normality of data is a crucial assumption in SEM, especially when using Maximum Likelihood Estimation (MLE). The accuracy and efficiency of MLE depend significantly on normality of the data distribution (Byrne, 2016). Non-normal data can lead to biased parameter estimates, underestimated standard errors, and inflated Chi-square values, ultimately affecting model validity (West et al., 1995). The use of skewness and kurtosis values in normality assessment ensures that any deviations are within acceptable limits, facilitating robust and reliable SEM analysis (Curran et al., 1996).

After achieving model fitness and validation, the normality assessment proceeded to the structural modeling phase. The test for normality and outliers was conducted for each variable in the dataset. As per SEM guidelines, MLE was utilized. The thresholds for skewness and kurtosis values are well-documented in SEM literature. Kline (2015) suggests that for a sample size larger than 200, a skewness value below 1.5 and a kurtosis value below 7.0 are indicative of an acceptable level of normality. These thresholds help ensure that the data approximates a normal distribution closely enough for the assumptions of MLE to hold (Tabachnick & Fidell, 2013). Given that the sample size exceeded 200, the maximum acceptable value for skewness was 1.5, and the critical range for kurtosis should not exceed 7.0. In Table 6, both the skewness and Critical Ratio (CR) values did not exceed the accepted range. Therefore, normality was assured in the model.

The fit indices (Chi-square/*df*, RMSEA, NFI, NNFI, CFI, GFI, AGFI) obtained for the model in Figure 2 were reviewed, and it was observed that the model was significant at the .05 level. The Standardized Root Mean Square Residual (SRMR) value of .065 indicated that the model explained the correlations within an average error of .065. Although this SRMR value was slightly higher than the ideal value of .05 for well-fitting models, values as high as .08 are deemed acceptable (Jöreskog & Sörbom, 1993).

The Chi-square/*df* ratio of 198.708 was below the threshold, with a CMIN/*df* value of 1.54, suggesting that the model fits the data well relative to its complexity and that the sample size was adequate for assessment. The Normed-Fit Index (NFI) was .907, indicating a good fit as recommended values greater than .90 are indicative of a good fit. The Tucker-Lewis Index (TLI) was .958, suggesting a very good fit as values should be ≥ .95 (Jöreskog & Sörbom, 1993).

Figure 2 *Second-Order Model of Factorial Structure for University Choice Fit Indices of Model*



Note. p-value = .000, CMIN/*df* 1.540, CFI = .965, TLI = .958, IFI = .965, RMSEA = .05, NFI = .907, GFI = .906, RMR = .0654

Discussion

This study integrated Chapman's model (1981) and the Theory of Planned Behavior to examine factors influencing university choices among Sri Lankan students. By employing printed surveys and random sampling, this study aimed to identify the underlying constructs that shape students' university selection decisions. Factor analysis was utilized to uncover patterns among observed variables, allowing for the identification of latent factors that influence student choices.

The initial hypotheses were developed based on theoretical considerations and prior research, identifying key determinants of university choice such as academic reputation, financial considerations, and social influences. However, the exploratory factor analysis (EFA) grouped these individual variables into five broader latent constructs: Student Characteristics, University Image, Fixed University Characteristics, University Communication Efforts, and Influence of Significant Persons. To ensure alignment between the theoretical framework and empirical findings, the original hypothesis variables were mapped onto these broader constructs. Specifically, academic reputation and perceived quality of education were captured under University Image, while financial considerations were categorized under Student Characteristics. Similarly, geographical proximity and institutional facilities aligned with Fixed University Characteristics, whereas social and cultural influences (such as family expectations and peer advice) were reflected in Influence of Significant Persons. Lastly, effective communication and information delivery by universities corresponded with University Communication Efforts.

This methodological approach is supported by classical literature in factor analysis and structural equation modeling. Hair et al. (2019) emphasized that EFA serves to identify latent constructs that best represent observed variables, ensuring a more reliable and valid measurement model. Similarly, Kline (2015) noted that theoretical constructs often manifest differently when subjected to empirical testing, necessitating an adaptation of originally hypothesized variables into data-driven factors. MacCallum et al. (1999) further argued that Exploratory Factor Analysis is a critical step in refining

theoretical models, helping researchers distill complex relationships into meaningful constructs that improve model fit and explanatory power. Structural Equation Modeling identified five key constructs affecting university choice: Student Characteristics, University Image, Fixed University Characteristics, University Communication Efforts, and Influence of Significant Persons.

Among these, Student Characteristics had the most substantial influence, with a correlation coefficient of γ = .95. This construct included factors such as a student's interest in studying, expected job opportunities after graduation, and future career prospects. These findings aligned with studies by Connie et al. (2022) and Cabrera and La Nasa (2000), which emphasized employment opportunities as critical in university decision-making. Nearly 50% of surveyed students reported a monthly family income of Rupees 27,000–56,000 (US$88–$183), highlighting the aspirational role of higher education in improving socioeconomic status.

The University Image construct, with a correlation of γ = .50, was another significant determinant. This included reputation, rankings, and demand. Hemsley-Brown and Oplatka (2006) stressed that institutional reputation heavily influences student decisions. Similarly, Maringe (2006) observed that demand for universities is often linked to academic quality, campus facilities, and overall student experience. The preference for public universities, chosen by 83% of respondents, reflected their perceived superior reputations and career prospects compared to private institutions.

Fixed University Characteristics, including location, transport costs, and cost of living, also significantly impacted choices (γ = .34). These factors were particularly relevant for rural students, where logistical and financial barriers can restrict access to higher education. Similarly, University Communication Efforts (γ = .34) played a critical role, emphasizing the value of outreach activities such as open days, social networks, and seminars. These efforts were particularly effective in rural settings, where direct communication bridges information gaps about programs and career prospects.

The influence of Significant Persons, such as peers, teachers, and family members, had a modest positive impact (γ = .14). While external influences were present, they were less decisive compared to intrinsic motivations and institutional factors. This aligned with recent studies (e.g., Connie et al., 2022), indicating that students in this context exhibit greater independence in decision-making.

Conclusion

This study provides critical insights into the factors shaping university choices in Sri Lanka's rural districts. These findings have practical implications for policymakers aiming to enhance higher education enrollment, and highlighted the paramount importance of student characteristics, particularly career aspirations, in shaping decisions. Students prioritize public universities due to expectations of better employment opportunities, underscoring the need for educational offerings aligned with labor market demands.

University image, including reputation and rankings, emerged as another crucial factor. Institutions must maintain high standards and quality assurance to attract prospective students. Efforts to improve institutional visibility through effective communication strategies, including social media and outreach programs, are essential. Low-cost initiatives like open days and school-level workshops can significantly impact rural students. Contrary to expectations, students in these districts demonstrated a notable degree of independence, with relatively limited influence from family, peers, or high school personnel. This highlights the need for direct communication between universities and students, bypassing traditional mediators.

In summary, this study identified key latent constructs influencing university selection through factor analysis. Academic reputation and perceived quality of education, financial considerations, geographical proximity and institutional facilities, social and cultural influences, and university communication efforts emerged as significant dimensions shaping students' decisions. Aligning university programs with students' academic expectations, addressing financial and logistical barriers, and strengthening institutional reputation can enhance the appeal of higher education institutions. Additionally, improving communication strategies and outreach efforts can ensure students receive the necessary information to make informed choices. By addressing these core factors, policymakers

and educational institutions can improve accessibility and enrollment, ensuring that higher education remains a pathway to socioeconomic advancement for Sri Lanka's youth.

Acknowledgements

The author wishes to extend heartfelt gratitude to colleagues Mr. Chandeel Bandara, Mr. S. Adikari, and Dr. Nilusha Wanigasekara of the Open University of Sri Lanka for their immense support and invaluable assistance in coordinating data collection across various districts. Their dedication and efforts have been instrumental in the successful completion of this research.

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Appendix 1

Survey Items and their Theoretical Foundations for University Choice Determinants

Construct	Item Code	Description	Reference
Student Characteristics	Sinterest	Interest in university admission	Ajzen (1991)
	Spromotejob	Aspiration to pursue higher education for career growth	Becker (1964)
	Scareer	Future career perspectives and job market expectations	Eccles et al. (1983)
Fixed University Characteristics	UniTransport	Accessibility of transportation to the university	Chapman (1981)
	UniLocation	Geographical location and convenience	Chapman (1981), Cabrera & La Nasa (2000)
	UniCCOL	Cost of living while attending university	UNESCO (2023)
Significant Persons	Imentors	Influence of mentors on university selection	Coleman (1988), Chapman (1981)
	ITeachers	Recommendations from teachers and academic advisors	Coleman (1988), Chapman (1981)
	IFriends	Advice and experiences shared by friends	Coleman (1988), Chapman (1981)
	Iparent	Parental expectations and financial support	Coleman (1988), Chapman (1981)
University Efforts to Communicate	Mmassmedia	Impact of mass media (TV, newspapers, radio) on decision-making	Hemsley-Brown & Oplatka (2006)
	Mopendays	University open days and promotional events	Maringe (2006)
	Msocialmedia	Social media outreach and online engagement	Kotler & Keller (2012)
	Munistudents	Influence of current university students on prospective applicants	Kotler & Keller (2012)
University Image	UniReputation	Reputation of the university within academia and industry	Chapman (1981), Hemsley-Brown & Oplatka (2006)
	UniRanking	National and international ranking of the university	Chapman (1981), Hemsley-Brown & Oplatka (2006)
	UniStandards	Academic standards, curriculum quality, and faculty expertise	Cabrera & La Nasa (2000), Maringe (2006)
	UniDemand	Overall demand and competition for admission	Cabrera & La Nasa (2000), Maringe (2006)