Navigating Competitive Waters: Marketing Mix, Strategic Branding and Growth in Private Higher Education

Dhameeth GD[1]* and Diasz L[2]

[1]Visiting Associate Professor of Marketing Breech School of Business Administration (AACSB), Drury University, Springfield, Missouri, USA

[2]Chairman/Managing Director- Cambridge College of Business & Management, Sri Lanka

ABSTRACT

The entry of many private higher education institutions (HEIs) into the tertiary education industry in Sri Lanka has been conducive to a high degree of rivalry among competitors. Amid this rivalry, the private sector HEIs have realized the importance of designing and implementing strategically planned sustainable growth for institutions to provide value for their stakeholders. This study tested a theoretical model that includes two influencing factors– marketing mix strategy and strategic branding, and one moderating factor–competition, hypothesized to influence the performance and growth of HEI. Respondents (n = 322) from existing HEIs were surveyed to measure the key constructs. A multilinear regression supported a fit of data to the model. The study empirically revealed that marketing mix strategies designed and implemented by the HEIs do not positively influence the performance and growth of the institution. At the same time, strategic branding is a significant factor in influencing performance and growth. Moreover, the relationship between the marketing mix strategy and sustainability and the relationship between strategic branding and sustainability were moderated by the degree of rivalry that impacts the growth of the HEI. These results provide evidence to validate prior theories grounded in literature.

***Corresponding author**
Dhameeth GD, Visiting Associate Professor of Marketing Breech School of Business Administration (AACSB), Drury University, Springfield, Missouri, USA.

Introduction

The tertiary education market in Sri Lanka is experiencing significant growth, driven by the entry of private sector institutions aiming to offer more affordable and accessible educational options. This expansion responds to a demand that exceeds national supply, creating opportunities for private entities to provide both local and foreign degrees [1]. The government's recognition of the private sector's role in accommodating students who cannot gain admission to state universities—due to capacity constraints—has fostered a supportive environment for new entrants. Consequently, existing higher education institutions (HEIs) face intense competition, necessitating a focus on strategic planning [2]. This includes implementing effective marketing mix strategies and strategic branding, which are essential components of their overall strategic framework to enhance stakeholder value.

According to Sri Lanka's gross enrollment ratio (GER) in tertiary education reached nearly 20 percent in 2015, positioning it among the lowest in middle-income countries. This statistic has led to concerns about the country's insufficient number of individuals with tertiary education [3]. The primary factors contributing to these low enrollment rates include capacity constraints within the state university system and the underdeveloped state of private sector education and technical and vocational education and training (TVET) programs. notes that higher education in Sri Lanka represents an optional final stage of formal education, taking place in recognized universities or colleges, which may be public or private institutions that grant their degrees or degrees from foreign universities [1]. Sri Lankan students face a significant dilemma due to the limited capacity of public universities to meet demand and the associated employment opportunities following graduation [2,4]. While top-performing students from both urban and rural areas should theoretically have access to tertiary education, some choose not to attend government universities. Additionally, many students, particularly those from rural districts, struggle to achieve the necessary scores on university entrance examinations, resulting in many being denied admission and seeking alternative pathways for higher education [1].

The Economics Report of Sri Lanka highlighted that there were 43,000 unemployed graduates in the country in 2017, contributing to rising unemployment levels and posing a significant economic burden. This context underscores the importance of addressing the study's objectives [5]. In the public university system, out of 54,124 applications, only 22,016 students were admitted, yielding a selection rate of 41 percent [6]. This implies that over 30,000 applicants were not accepted, believing they qualified for tertiary education. These findings illustrate a significant imbalance between the supply and demand for tertiary education in Sri Lanka. The surplus demand and the shortage of available spots in public universities have created opportunities for the private sector to enter the education market [6]. This dynamic has facilitated the emergence of numerous private colleges, catering to various market segments with diverse value propositions, thereby enhancing the educational landscape in the country.

The competitive rivalry among industry players is driving down margins and eroding shareholder value, prompting some institutions to seek quicker, less sustainable methods for survival, thereby compromising the academic quality of higher education Globally, the liberalization of education systems has significantly elevated the role of private higher education providers [1]. posits that a favorable external environment allows numerous companies to enter the industry, often resulting in intense competition [7,8]. This phenomenon is evident in Sri Lanka, as numerous private colleges offer higher education degrees to qualified candidates who cannot gain admission to government universities Major players in the Sri Lankan education sector predominantly offer British or Australian degrees and maintain extensive branch networks across the island [1]. Notable institutions include American National College (ANC), International College of Business and Technology (ICBT), Australian College of Business and Technology (ACBT), Imperial College of Business Studies (ICBS), Imperial Institute, and ESOFT Metro Campus (ESOFT), which have collectively recruited a substantial number of students over recent decades [9]. Despite the proliferation of private institutions, the demand for higher education places continues to exceed the supply offered by public universities and larger private colleges. This persistent demand creates opportunities for smaller and medium-sized players to enter the market, offering niche solutions and often operating from one to a few locations.

Research Questions and Objectives

In undertaking this comprehensive approach, higher education institutions (HEIs) in Sri Lanka must address several critical questions: What will the industry's future look like amidst growing competition? What marketing strategies most effectively influence prospective students' decision-making when selecting an institution for tertiary education? Furthermore, how do marketing and branding strategies impact the sustainability of HEIs? This study is structured around three key objectives. The first is to understand the dynamics of the higher education industry, particularly in competition and competitor responses. The second objective is to assess the effectiveness of current strategic plans in maintaining and enhancing the sustainability of HEIs. The final objective is to provide recommendations for strengthening the competitive advantage of HEIs in the evolving market.

Hypothesis

An extensive literature review informed the development of hypotheses for this study. Based on the findings, four critical context-specific hypotheses were formulated for testing. These hypotheses are as follows:

- The marketing mix strategy positively influences the sustainability of HEIs.
- Strategic branding positively influences the sustainability of HEIs.
- The degree of market competition moderates the relationship between the marketing mix strategy and the sustainability of HEIs.
- The degree of market competition moderates the relationship between strategic branding and the sustainability of HEIs.

The results of the hypothesis testing are presented and discussed in the subsequent sections of this manuscript.

Methodology
Description of Study Design

This study employed a cross-sectional exploratory approach to quantify the outcomes of the phenomenon under investigation [10]. A representative sample of the total population was used to examine how higher education institutions (HEIs) in Sri Lanka manage their marketing mix strategies and branding in the context of strategic planning. The methodology was articulated by a comprehensive literature review and supported by data gathered through structured interviews.

Sampling Techniques and Sample

A sample of 322 respondents was randomly selected using a quota sampling technique from higher education institutions in Sri Lanka. This approach was adopted to minimize sampling bias. The sample size was determined using the formula established by [11]. The study was confined to the urban area of Colombo, as it was assumed that students attending colleges in Colombo were representative of those in other major cities across Sri Lanka. The following table outlines the sampling procedure employed in this study and is presented in a quantitative format.

Table 1: Sampling Procedure

Colleges	Total Student Numbers (n)	Selected Samples (f)
A	2,000	111
B	1,800	100
C	900	50
D	800	44
E	200	11
F	100	6
	5,800	322

Source: Hypothetically Developed, Where the Total Number of Students is the First Assumption from the Colleges of A Through F.

Description of the Measures

This study measured three independent variables: marketing mix strategy, strategic branding, and competition, and examined their influence on the sustainability of higher education institutions (HEIs) operating in Sri Lanka. The constructs were assessed using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), to quantify the dimensions related to the studied phenomena [12].

Data Collection

Secondary data were sourced from the Ministry of Higher Education archives in Sri Lanka, while primary data were gathered through a validated and reliable structured questionnaire. This survey instrument was administered to a randomly selected sample of 322 respondents. The questionnaire was designed in alignment with the study's objectives and the hypotheses formulated for testing.

Statistical Methods Used

Following the Cronbach's Alpha test the retained items were used to develop a questionnaire for administering the survey to 322 respondents per the study plan [13,14]. Both descriptive and inferential statistics were employed for data analysis. RStudio 3.5 and Tableau 2020.2 were utilized for the analyses, with RStudio handling descriptive statistics, such as mean scores, standard deviations, correlations, multicollinearity tests (VIF and PCA), normality tests, t-tests, and predictive statistics, including model building [15]. Tableau was used for visualizing demographic data. Four models were constructed to test the hypotheses. The first two models (Model 01 and Model 02) were based on simple linear

regression to assess the influence of marketing mix strategies and strategic branding on the sustainability of HEIs in Sri Lanka [16]. The other two models (Model 03 and Model 04) employed multiple linear regression to examine the moderating effects of competition on the relationships between marketing mix strategies and sustainability and strategic branding and sustainability. The results of these analyses are presented in the subsequent sections of this manuscript.

Analysis and Results
The dataset comprised four variables and 322 observations, resulting in 1,288 data points. Four observations had missing data, accounting for only 0.01% of the total dataset. To address these missing values, the average value of the respective variables was imputed as a data-cleaning strategy. Section A of the questionnaire gathered geodemographic information from respondents. This included details such as the college they attend, class standing (year), location and district of the institution, hometown, program enrolled, whether the program is sponsored, highest qualification obtained, year of entry, gender, age, and ethnicity. The analysis revealed that 49 respondents attended Oxford College of Business (OCB), followed by 46 from ICBT. IIHE and ACHE were tied as the third most attended institutions in the sample population. The highest median class standing was reported by third-year students, followed by second-year students. Most institutions were located in and around the Colombo area. Diploma programs had the highest enrolment, followed by MBA programs, while IT degree programs reported the lowest enrolment. In the BBA, IT degree, and MBA programs, male students had the highest relative enrolment, whereas female students had higher enrolment

in MSc programs. Notably, male and female students had equal enrolment in Diploma programs. Compared to females, males had attained the highest qualifications (B.Sc.) at the time of the survey. However, females had higher Advanced Level (A/L) scores. The gender composition of the sample was nearly equal between males and females, with a slight marginal increase in the median score observed for males. The most common age range among respondents was between 25 and 30 years, followed by 35 and 20 to 22 years. In terms of ethnicity, 97 respondents were Sinhalese (30.12%), followed by Tamils (78, 24.22%), Burghers (74, 22.98%), and Muslims (73, 22.67%). The most critical factor influencing the choice of an institution, based on the data, was the range of programs offered. This was followed by the institution's location, with other factors such as recognition, brand name, technology, and faculty also playing significant roles. This quantitative analysis was conducted to evaluate the data collected from the various sections of the questionnaire, specifically Sections B, C, D, and E. Section B was designed to gather data related to the first construct, the Marketing Mix. In contrast, Section C focused on the second construct, Strategic Branding. Sections D and E were developed to capture data on the third and fourth constructs: Competition and Sustainability. All constructs were measured using a five-point scale. Section B (Marketing Mix) included 24 data points, Section C (Strategic Branding) contained 18 data points, Section D (Competition) comprised 13 data points, and Section E (Sustainability) had 9 data points. The study model included 64 data points across the four key constructs, supported by 322 observations. The data were analyzed using RStudio 3.5, and the findings are presented in the subsequent sections.

Table 2: Summary Statistic

	Marketing Mix (V1)	Strategic Branding (V2)	Competition (V3)	Sustainability (V4)
Min	52.00	38.00	25.00	15.00
1st Quartile	68.00	50.00	36.00	24.00
Median	72.00	54.00	39.00	27.00
Mean	72.26	54.26	39.10	26.90
3rd Quartile	77.00	58.00	42.00	30.00
Maximum	96.00	73.00	52.00	37.00
Standard Deviation	6.96	6.14	4.81	4.26

According to the summary table presented above, the mean scores for the four key variables are as follows: the marketing mix variable has a mean of 72.26, strategic branding has a mean of 54.26, competition has a mean of 39.10, and sustainability has a mean of 26.90. The marketing mix variable exhibited the highest standard deviation, recorded at 6.96, while strategic branding, competition, and sustainability had standard deviations of 6.14, 4.81, and 4.26, respectively. These standard deviation values indicate that the marketing mix variable has a more significant data spread than the other three. Additionally, pair plots were generated to examine the correlation coefficients among the four key variables pertinent to the study.
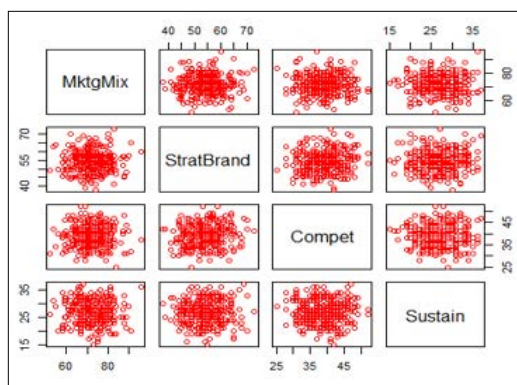

Figure 1: Correlation Pair Plots

Based on the pair plots generated, the correlation coefficients obtained were as follows: marketing mix and strategic branding (r = .032), marketing mix and competition (r = .001), marketing mix and sustainability (r = -.020), strategic branding and competition (r = .107), strategic branding and sustainability (r = .046), and competition and sustainability (r = .009). These correlation coefficients indicate a lack of strong linear relationships among the variables. A Shapiro-Wilk normality test was conducted to assess the normality of the data associated with the four key variables. The following p-values were yielded as a result of this test.

Table 3: Normality Test Score (p-values)

Variable	p-value yielded	Data Normally Distributed
Marketing Mix (V1)	0.47 > 0.05	Yes
Strategic Branding (V2)	0.22 > 0.05	Yes
Competition (V3)	0.08 > 0.05	Yes
Sustainability (V4)	0.01 < 0.05	No

Based on the p-values obtained from the Shapiro-Wilk normality tests, the sample data for three key variables—marketing mix, strategic branding, and competition—are normally distributed. The fourth variable, sustainability, did not meet the criteria for normality, as indicated in the table above. T-tests were performed to assess the significance of the sample means, with the null hypothesis set at ($\mu = 0$) and a confidence level of 95% ($\alpha = 0.05$). The p-values from the test results were less than the predetermined alpha value ($p < 0.05$), indicating insufficient evidence to accept the null hypothesis. Therefore, the t-tests were statistically significant at the 95% confidence level. The following table presents the test results for each variable analyzed separately.

Table 4: t-Test Results

	p-value	Conf. level	Conf. Interval	Sample Estimates	Test Significance
Marketing Mix	2.2e-16	95%	71.50068 - 73.02727	72.26398	Significant
Strategic Branding	2.2e-16	95%	53.59072 - 54.93724	54.26398	Significant
Competition	2.2e-16	95%	38.57474 - 39.63023	39.10248	Significant
Sustainability	2.2e-16	95%	26.43319 - 27.36806	26.90062	Significant

The primary focus of this study is to examine the influence of marketing mix and strategic brand management on the institution's sustainability. Additionally, it seeks to determine whether competition moderates the relationship between marketing mix, strategic branding, and sustainability. To explore these phenomena, a multiple linear regression model was developed to analyze the impact of predictor variables—namely, marketing mix strategy, strategic branding, and competition—on the response variable, which is the institution's sustainability. $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$, substituting to the context-specific variables: Sustain $= \beta_0 + \beta_1*$Marketing Mix$+\beta_2*$Strategic Branding$+\beta_3*$Competition$+\epsilon$. The primary linear multiple regression model was developed based on the theoretical frame, and the multiple regression model was presented above to estimate the coefficients. As a result, the following coefficient estimates were yielded, as presented in the table below.

Table 5: Multiple Linear Regression Coefficient Estimates

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	25.979138	3.647846	7.122	7.15e-12 ***
Mktg Mix	-0.013680	0.034313	-0.399	0.690
Strat Brand	0.032335	0.039129	0.826	0.409
Competition	0.003975	0.049892	0.080	0.937

Residual standard error: 4.278 on 318 degrees of freedom
Multiple R-squared: 0.002666, Adjusted R-squared: -0.006743
F-statistic: 0.2834 on 3 and 318 DF, p-value: 0.8374

According to the coefficient estimates presented in the table, it can be inferred that a one-unit investment in marketing mix strategies is associated with a decrease in institutional sustainability by 1%. Conversely, a one-unit increase in strategic branding and competition is linked to increases in institutional sustainability of 3% and 0.3%, respectively. However, the associated p-values indicate that none of the predictor variables are statistically significant. Furthermore, the proportional change in institutional sustainability explained by the predictor variables—marketing mix, strategic branding, and competition—accounts for only 0.2%, leaving 99.8% of the variance attributable to other unexamined factors. Conducting a multicollinearity test is essential in developing and evaluating multiple linear regression models, as it assesses the potential for high variance in coefficient estimates due to unstable relationships among predictors. Various methods exist to measure multicollinearity, with the two most commonly employed techniques being principal component analysis (PCA) and variance inflation factor (VIF) analysis. Both techniques were utilized in this study, and the results will be discussed in the following subsections.

Principal Component Analysis (PCA)
Principal component analysis was conducted to assess the level of parsimony retained in the proposed model. The table below outlines the number of variables essential for preserving the study's parsimony.

Table 6: Principal Component Analysis

	Comp.1 (V1)	Comp.2 (V2)	Comp.3 (V3)	Comp.4 (V4)
Standard deviation	6.9645347	6.1773772	4.7365435	4.2461156
Prop. of Variance	0.3815393	0.3001673	0.1764730	0.1418204
Cumulative prop.	0.3815393	0.6817066	0.8581796	1.0000000

Based on the Eigenvalues presented in the preceding table, all components with values greater than 1 were retained to develop the multilinear regression model for further analysis.

Variance Inflation Factor (VIF)
The variance inflation factor (VIF) is a statistical measure used to assess the extent of inflation in the variance of a coefficient due to its association with other coefficients, which may distort the performance of the regression model. A high VIF indicates the presence of collinearity among the variables, with a standard threshold for identifying collinearity set at 5 or higher. In this study, the VIF was calculated and is presented in the following table.

Table 7: Variance Inflation Factor Results

Factor	Score
Marketing Mix	1.001029
Strategic Branding	1.012736
Competition	1.011701

According to the table above, all factors yielded a variance inflation factor score below the calibrated threshold of 5. This indicates that the predictor variables capture distinct aspects within the model. Consequently, the subsequent section retained all three predictor variables marketing mix, strategic branding, and competition for hypothesis testing.

Hypotheses Testing

Four hypotheses were formulated for empirical testing, drawing upon insights and findings from the reviewed literature. These hypotheses aim to explore specific relationships and effects relevant to the research questions posed in this study. The hypothesis test results, including statistical analyses and relevant metrics, are presented in the following table. This table provides a comprehensive overview of the testing outcomes, facilitating a clearer understanding of the implications and significance of the findings to the established hypotheses.

Table 8: Hypotheses Test Outcomes

Model	Intercept/ variable	Estimate	Std. Err	t-value	p-value	R-Sqd
Model 01 (H1)	(Intercept)	27.82283	2.48474	11.197		
	Mktg Mix	-0.01276	0.03423	-0.373	0.7095	0.0004
Model 02 (H2)	(Intercept)	25.15475	2.11721	11.88		
	Strat Branding	0.03217	0.03877	0.83	0.4072	0.0021
Model 03 (H3)	(Intercept)	8.690173	18.8294	0.462		
	Mktg Mix	0.246608	0.25834	0.955		
	Competition	0.494680	0.48260	1.025		
	MktgMix: Competition	-0.006707	0.00662	-1.013	0.7547	0.0037
Model 04 (H4)	(Intercept)	42.012188	17.3937	2.415		
	Strat Branding	-0.280194	0.31779	-0.882		
	Competition	-0.429777	0.44126	-0.974		
	StratBrand: Competition	0.007952	0.00804	0.989	0.6436	0.0052

The outcomes of the hypothesis tests presented in the above table indicate the following: In Model 01, the coefficients reveal that a one-unit increase in marketing mix activities hurts the institution's sustainability, with a coefficient of -0.01276. Consequently, hypothesis one (H1) is rejected.

In Model 02, the coefficients indicate that a one-unit increase in strategic branding activities positively affects the institution's sustainability, with a coefficient of 0.03217. Therefore, hypothesis two (H2) is accepted.

Model 03 demonstrates that a one-unit increase in competition negatively moderates the relationship between marketing mix strategies and institutional sustainability, reflected by a coefficient of -0.006707. As a result, hypothesis three (H3) is accepted.

Finally, in Model 04, the coefficients suggest that a one-unit increase in competition positively moderates the relationship between strategic branding and sustainability, with a coefficient of 0.007952. Thus, hypothesis four (H4) is accepted.

However, it is essential to note that the p-values obtained indicate that none of the coefficients are statistically significant at the $\alpha = 0.05$ level. Additionally, the R-squared values demonstrate that the variance in sustainability explained by each model is minimal: 0.04% for Model 01, 0.2% for Model 02, 0.4% for Model 03, and 0.5% for Model 04. These findings suggest that other unexplored and unmeasured variables could significantly influence the institution's sustainability.

Discussion

As outlined in previous sections, when a higher education institution (HEI) operates within a highly competitive environment characterized by social, political, technological, and legal pressures, the formulation of a strategically crafted marketing strategy and a robust brand strategy is essential for optimizing returns on investment and delivering value to stakeholders. A well-designed marketing strategy, which incorporates a balanced mix of critical elements such as pricing, promotions, distribution, and offerings (programs), should enhance the sustainability of the HEI amidst competition. The critical dimensions of institutional sustainability include student loyalty, enrollment rates, word of mouth, profitability, and growth. Student loyalty can be assessed by how many programs a student enrolls in at the same institution. Enrollment rates can be evaluated by tracking growth across cohorts, semesters, and academic years. Additionally, word of mouth can be quantified by the number of prospective students referred to the institution by current students based on their recommendations regarding the programs offered. One of the hypotheses tested in this study aimed to examine whether the marketing mix strategies developed and implemented by higher education institutions (HEIs) positively influence institutional sustainability. The data analysis reveals an inverse relationship; specifically, the marketing mix strategies employed by HEIs do not positively affect sustainability. The findings

suggest that a one-unit investment in marketing mix strategies is associated with a decrease of one unit in the institution's sustainability. This outcome contradicts the arguments posited by and who contend that the strategies typically adopted by business organizations are rooted in fundamental marketing principles [17,18]. They assert that extensive advertising as a component of marketing communications is crucial for enhancing organizational sustainability. Other scholars, including have echoed similar sentiments, emphasizing that effectively designed and implemented marketing mix strategies positively influence organizational sustainability [19-22].

The second hypothesis of this study sought to determine whether the strategic branding implemented by higher education institutions (HEIs) positively influences institutional sustainability. Key dimensions of strategic branding include communication mediums, identification and profiling of the target audience, advertising size, frequency, timing, social media sentiment management, and the design and placement of signage and billboards. The strategic branding framework is designed and executed based on the key elements introduced in Kevin Lane brand equity model, which encompasses salience, performance, imagery, judgments, feelings, and resonance [19].

The salience element assists institutions in establishing brand identity (i.e., "Who are you?"), while performance and imagery contribute to conveying the brand's meaning (i.e., "What are you?"). Judgments and feelings facilitate brand response (i.e., "What do I feel and think about you?"), Moreover, the resonance element fosters brand relationship (i.e., "What about you and me?"). The empirical investigation conducted in this study revealed that the strategic branding efforts of HEIs positively influence institutional sustainability. Data indicate that a one-unit investment in strategic branding is associated with an increase in sustainability by three units. This finding underscores the importance of enhancing investment in strategic branding initiatives to leverage institutional sustainability.

These results align with previous literature emphasizing that an organization's success depends on the value sustainably created for its stakeholders [23-25]. Organizations typically design and implement their marketing mix strategies in various combinations to compete effectively in the marketplace. However, this process does not occur in isolation; as noted by marketing expert Michael Porter, a critical factor in implementing a marketing mix strategy is the degree of rivalry within the industry.

Porter identifies four key factors that influence industry rivalry: the bargaining power of customers, the bargaining power of suppliers, the threat of new entrants, and the threat of substitutes. These competitive forces significantly affect the industry's degree of rivalry and the relationship between the deployed marketing mix strategies and institutional sustainability.

The empirical findings of this study revealed that competition negatively moderates the relationship between marketing mix strategies and sustainability, with an effect size of -0.6 units. Conversely, strategic branding demonstrates more favorable outcomes in the context of competition. Specifically, the investigation showed that competition positively moderates the relationship between strategic branding and sustainability, resulting in a positive effect size of 0.7 units.

Thus, HEIs in Sri Lanka should analyze, understand, and deploy appropriate marketing mix strategies and strategic branding techniques to mitigate competitive pressures and achieve optimal sustainability outcomes [26].

Limitations

The research implications highlight the significance of the findings for higher education institutions (HEIs) in formulating strategic planning policies. It is essential for HEIs to conduct a comprehensive analysis of the competitive environment within the industry, followed by the development and implementation of appropriate marketing mix and strategic branding strategies. Such an approach is crucial for achieving optimal and sustainable outcomes for stakeholders. This strategic planning practice not only enhances the quality of institutional planning but also contributes to an increase in enrollment rates over time, owing to the institution's differentiated position relative to its competitors. Furthermore, the findings of this study may serve as valuable insights for potential investors looking to enter the higher education sector, as well as for students interested in pursuing further research in this area. Understanding the critical factors that influence institutional sustainability in the higher education landscape in Sri Lanka is essential for both groups. However, this study has limitations that warrant further investigation. Additional phenomenon-related variables should be considered, informed by a more exhaustive literature review. While the initial review was thorough, other factors could provide a more comprehensive understanding of the influences on institutional sustainability and enhance the regression model. Finally, the sampling design identified as a limitation suggests that employing a stratified sampling approach would improve the quality of the survey by ensuring appropriate representation from various strata, including students, industry experts, faculty, competitor institutions, and staff. This would facilitate a more comprehensive representation of the entire population associated with the higher education industry.

References

1. Jayasundara N (2014) Higher Education Policy in Sri Lanka: Implementation in State Universities, Scientific Research Journal 41.
2. Wickaramasinghe N (2005) University Space and Values Three Essays, International Center for Ethnic Studies Colombo, Sri Lanka https://catalogue.nla.gov.au/catalog/3701066.
3. Nedelkoska L, O Brien T, Stock D (2016) Does the Sri Lankan Economy Need More University Graduates? Development Research Report, Center for International Development Harvard University https://srilanka.growthlab.cid.harvard.edu/blog/does-sri-lankan-economy-need-more-university-graduates.
4. GOSL (2017) Report on Universities, University Grants Commission, Government of Republic Democratic of Sri Lanka.
5. GOSL (2018) Universities, Campuses and University Colleges, University Grants Commission, Government of Republic Democratic of Sri Lanka.
6. Vaikunthavasan S, Jebarajakirthy C, Shankar A (2019) How to Make Higher Education Institutions Innovative: An Application of Market Orientation Practices. Journal of Nonprofit & Public Sector Marketing 31: 274-302.
7. Ghicajanu M (2021) Competitive Analysis of the Business with the Michael Porter Model. Annals of the University of Petrosani Economics 21: 169-178.
8. Yong Z, Ramanathan H (2010) Handbook of Asian Education:

A Cultural Perspective, New York: Routledge https://www.routledge.com/Handbook-of-Asian-Education-A-Cultural-Perspective/Zhao-Lei-Li-He-O.

9. Perera CH, Nayak R, Nguyen LTV (2022) Social brand engagement and positioning for higher educational institutions: an empirical study in Sri Lanka. Journal of Marketing for Higher Education 32: 179-196.

10. Campens J, Vercruyssen A, Schirmer W, Verté E, De Witte N (2024) The association between internet non-use and multidimensional frailty in older adults: a three-wave cross-sectional study from 2004 to 2021. Behaviour & Information Technology 43: 1957-1971.

11. Lv Z, Liu Q (2024) ISODF-ENN:Imbalanced data mixed sampling method based on improved diffusion model and ENN. Journal of Intelligent & Fuzzy Systems 46: 221-235.

12. Heo CY, Kim B, Park K, Back RM (2022) A comparison of Best-Worst Scaling and Likert Scale methods on peer-to-peer accommodation attributes. Journal of Business Research 148: 368-377.

13. Foster RC (2021) KR20 and KR21 for Some Nondichotomous Data (It's Not Just Cronbach's Alpha). Educational & Psychological Measurement 81: 1172-1202.

14. Rogers TA, Gorday JY, Bardeen JR, Benfer N (2023) Examining the Factor Structure and Incremental Utility of the Contrast Avoidance Questionnaires via Bifactor Analysis. Journal of Personality Assessment 105: 238-248.

15. RStudio Team (2019) RStudio: Integrated Development for R. RStudio, Inc., Boston, MA https://www.r-project.org/conferences/useR-2011/abstracts/180111-allairejj.pdf.

16. Manis KT, Cockrell S, Friske W (2024) The Curvilinear Role of Trust in Marketing Systems: Analysis of a Moderated-Mediation Model with Hierarchical Linear Modeling. Journal of Macromarketing 44: 116-134.

17. Skinner SJ, Ivancevich JW (1992) Business, Irwin: Boston https://www.google.co.in/books/edition/Business_for_the_21st_Century/RSF8QgAACAAJ?hl=en.

18. Hair JF, Bush RP, Ortinau DJ (2009) Marketing Research. 4th Edition. McGraw-Hill, Irwin. https://www.scirp.org/reference/referencespapers?referenceid=2895191.

19. Keller KL (2012) Strategic Brand Management, Pearson Education Limited: Harlow, UK https://search.worldcat.org/title/Strategic-brand-management-:-a-European-perspective/oclc/732967856.

20. Baker M (2008) The Strategic Marketing Plan Audit, Cambridge Strategy Publications: Cambridge https://www.google.co.in/books/edition/The_Strategic_Marketing_Plan_Audit/-n4jOAAACAAJ?hl=en.

21. Brown L (1997) Competitive Marketing Strategy: Dynamic Manoeuvring for Competitive Position, Nelson: Melbourne https://www.google.co.in/books/edition/Competitive_Marketing_Strategy/4RnIAQAACAAJ?hl=en.

22. Christian H, Kuester S, Krohmer H (2009) Marketing Management: A Contemporary Perspective, McGraw-Hill Publications: London https://www.google.co.in/books/edition/Marketing_Management/VdarGQAACAAJ?hl=en.

23. West D, Ford J, Ibrahim E (2010) Strategic Marketing: Creating Competitive Advantage Oxford University Press: Oxford https://www.google.co.in/books/edition/Strategic_Marketing/JWGcAQAAQBAJ?hl=en.

24. Szymanski DM, Bharadwaj SG, Varadarajan PR (1993) Standardization versus adaptation of international marketing strategy: an empirical investigation. The Journal of Marketing 1-17.

25. Stahl F, Heitmann M, Lehmann DR, Neslin SA (2012) The impact of brand equity on customer acquisition, retention, and profit margin. Journal of Marketing 76: 44-63.

26. Gamage SN, Wijesooriya TM (2016) Mapping the Higher Education, Landscape in Sri Lanka, Human Capital Research Program, LIRNEasia https://lirneasia.net/wp-content/uploads/2012/06/HE-HEI_Survey2012June27_PPT.pdf.