# An Empirical Study Investigating the Perception of Students in Higher Education: Evidence from North Eastern States of India

**Dr. Parbin Sultana**
Professor,
Department of Business Administration
University of Science & Technology
Meghalaya, India
drparbinsultana@gmail.com

**Aashish Mohanty**
Research Scholar, Department
of Business Administration
University of Science &
Technology Meghalaya, India
aashis.mohanty24@gmail.com

## Abstract

The definition of perception stands at the level of understanding an individual derives out of any aspect either through observation, consciousness or awareness. The student's perception measurement plays an important role when trying to study about the prospects of growth and development in the education sector. The study here attempts to lay its focus on the northeastern region of a developing economy India. The northeastern India is quite different from the mainland and the composition of students differ as well. In such a situation, focusing solely on the geographic location and with increasing private players in the region this study would be able to provide a number of interesting insights into the topic. A total of 397 students from the private universities in India have responded to a set of standard questions. These have been analysed using a number of statistical analyses to arrive at the results. The students in the North East of India have reported on three main aspects that serve as a motivation for them to pursue higher education. The first factor is Personal in nature where their motive to approach either public or private universities in the region for higher education is related to their desire to study more, to fulfil the wishes of their parents, for their own development, to serve the country and to attain a certain social status in the society. The second motivation drawing factor includes that of financial requirements. Here the students reportedly want to pursue higher education as they seek a financial stability and security in their lives. The third one includes the Job Prospects related to the attainment of higher education.

**Keywords** – Higher Education; Perception; Private University, Public University, North East India

## Introduction

Perception stands for understanding an individual's perception of an aspect through observation, consciousness, or awareness. It plays a crucial role in studying the growth and development prospects in the education sector. (Chong et al., 2018) Studies have shown that continuous engagement is essential for academic success and adaptation to the education system. (Eccles & Roeser, 2011; Watt et al., 2017).

Students who manage their studies independently and adhere to rules often perform better. Factors contributing to perception building include self-efficacy, cognitive and affective engagements, and perceived support from stakeholders. (Cai & Liem, 2017; Chong et al., 2018)

This study focuses on the northeastern region of a developing economy India, which differs from the mainland and has a different student composition. By focusing solely on the geographic location and increasing private players in the region, this study can provide interesting insights into the topic and provide valuable insights into the perception of the education system. By examining the factors that contribute to students' perception, the education system can be better equipped to support students' academic success and adapt to the changing landscape.

## Review of Literature

Wendin& Nyberg (2021), conducted a study to measure the perception of consumers towards the acceptance of insect-based food. The study examines consumer perception of insect-based food, focusing on sustainability. Factors influencing acceptance include familiarity, disgust, and neophobia. Positive experiences and increased exposure to insect-based food items can increase acceptance rates. The study suggests that sustainability and positive perceptions contribute to the adoption of insect-based food.

Gil-Pérez et al., (2020) based their consumer perception study on the role played by imagery when considering to buy a particular product. The importance of packaging has been well realised by the researchers and this study attempts to understand the same using consumer perception. The imagery being used to influence the perception of consumers in the past years have increased with the amount of response received against each of them being highly on rise. The factors which are basically found to have an impact on the perception building of consumers towards the method of using imagery for the packaging of products include the perception and evaluation of the inside product, the judgement of the individual consumers and the physical, bodily experience one has with it. There is also evidence suggesting the significant role played by imagery in packaging towards the adoption of a healthy lifestyle.

Jacob et al. (2020) conducted a study on consumer brand perception levels in luxury brands, using empirical evidence and statistical analysis. Factors included brand perception, expectation, brand image, love, and respect. The study established a model explaining consumer relationships with luxury brand attributes.

Garcia-Iruela&Hijon-Neira (2020) conducted a study on students' perceptions of gamification in their learning process. They surveyed students about gamified elements during their course and found that levels, feedback, points, and missions were of the most value. However, the concept of badges had the worst rating for a short period of time.

Timizar-Le Pen et al. (2020) conducted a study on nursing students' perceptions of reflective writing in professional courses. They surveyed 1527 students and 131 faculty members using two questionnaires. The results showed that both teachers and students had different experiences. Students had a higher authenticity rate, but their main concern was the relationship they formed with students and their own practices.

Albaradie (2018), based their study about the understanding the perception of both teachers and students towards the process of didactic learning. The study follows a cross sectional approach and investigates 110 students and 41 teachers. All of the respondents both students and teachers show that there is requirement of smart boards and mental rehearsal for the implementation of the didactic learning process. The inclusion of student's feedback by the teachers is very important for this purpose.

Balagova and Halakova(2018), study aimed to measure teacher-student interaction and compare self-perceptions of teachers and students. A 48-item questionnaire was created to understand this relationship. Results showed that teachers' self-perception evaluation method is similar to students', but gender differences were observed.

Chatterjee & Bhattacharjee (2020), conducted the study focusing on the use and adoption of artificial intelligence in the higher education sector. The study focused into the higher education institutes in India specifically. The study is based in a quantitative approach where the UTAUT model has been used as the conceptual framework. A study including 329 respondents showed that the attitude is

influenced by perceived risk and effort expectancy factor followed by an impact of the two along with facilitating conditions on that of the behavioural intention to adopt artificial intelligence in higher education of India.

Jena (2020), conducted a study to find out the impacts that have been caused on the higher education sector in India due to the Covid-19 pandemic. The pandemic had caused a considerable impact on the education sector across the whole world. Despite the challenges in the regular methods of studying, the higher education institutions (HEI) have managed to conduct the process quite well. The techniques implemented as a part of coping up with the new areas of learning, these can be quite effectively used for other purposes in the future as well. These trends being implemented can result in formulating innovative practices in the teaching learning process in the future.

Tilak (2020), study explores the challenges faced by Indian higher education students in financing their education, analysing data from 7,000 students from 40 engineering colleges. Factors influencing loan decisions include household economic conditions, gender, course costs, parental background, and asset ownership.

The study here constructs an agenda for understanding the perception of students in the higher education sector with respect to a specific geographic location and specifically among the private players in the market. The objective laid down for the study is as follows-

1. To study the perception of the students of the Indian Private Universities of North Eastern states about the role in imparting higher education.

2. To study the relationship between the dimension of service and quality of higher education in Indian Private Universities of North Eastern states

3. To evaluate the impact of service quality dimensions on the overall students' opinion in the higher education scenario of the Indian Private Universities of North Eastern states.

## Research Methodology

The study is descriptive and based on empirical data.

## Sampling Population

The area of Northeast India has been selected for the purpose of the study due to the growing private universities coming up in the region to offer high quality education to the students. As these universities operating across the region have similar characteristics, to select specific ones for the purpose of this study, simple random sampling method has been used. Using random sampling technique number , the list of private and public universities found are the ones being used for the study to collect primary data.

To conduct research and for gathering of data six private universities are selected, which are as follows:

1. Don Bosco University,

2. Kaziranga University,

3. Royal Global University,

4. Arunachal University of Studies

5. The ICFAI University, Nagaland

6. Mahatma Gandhi University

Apart from these universities 5 public universities also considered to compare the data. These are:

1. Dibrugarh University

2. Guwahati University

3. Rajiv Gandhi Central University

4. Nagaland University

5. Tripura University

Five states- Assam, Arunachal Pradesh, Nagaland, Tripura, and Meghalaya were considered as these states have paved the way for Private Universities and are convenient to pursue the study. The sampling unit will be Students studying in private universities and few public universities located in north eastern states of India as mentioned above.

**Table 1: Distribution of University Strength and Flagship courses offered by the selected university**

| University | Approx. University strength in 2019 | Flagship courses offered by university |
|---|---|---|
| Don Bosco University | 2300 | Undergraduate Engineering Program |
| Kaziranga University | 3696 | MBA, BTech |
| Royal Global University | 2500 | MBA, BTech |
| Arunachal University of Studies | 4300 | BCom |
| The ICFAI University, Nagaland | 1000 | MBA |
| Mahatma Gandhi University | 845 | Humanities |
| Dibrugarh University | 2223 | B.Tech. Social Sciences, Humanities |
| Gauhati University | 2195 | Engineering, Management , Law,Languages |
| Rajiv Gandhi Central University | 995 | Management, Humanities, Education |
| Nagaland University | 2234 | Commerce, Management, Sciences |
| Tripura University | 2751 | Commerce, Humanities, Management |
| TOTAL | 23226 | |

*Source: Author's compilation*

**Sampling Element**

The study is carried out in five major states those who have taken every step to improve the standard of education by incorporating participation of private players. For this research total 6 private universities and 5 public universities of five major North-Eastern states were taken into consideration randomly. The private universities are Don Bosco University, Assam; Kaziranga University, Assam; Royal Global University, Assam; Apex Professional University, Arunachal Pradesh; The ICFAI University, Nagaland; Mahatma Gandhi University, Meghalaya and five public universities are Dibrugarh University, Assam; Guwahati University, Assam; Rajiv Gandhi Central University, Arunachal Pradesh; Nagaland University, Nagaland; Tripura University, Tripura. These universities have been selected based on geographical spread and courses offered. In the process of collection of data combined total 14 branches of above said eleven universities were participated, they are BA, BBA, B. Com, B.Sc., B-Tech, BCA, M-Tech, MBA, M.Com, MSW, MCA, MA Mass Communication, MA Human Rights, MA Psychology. The students studying in above mentioned 14 branches of these 11 universities both private and public are said to be the target respondents.

**Sampling Technique**

The researcher has applied multistage sampling technique which is carried out in various stages. Here in first stage 6 private universities and 5 public universities have been selected by using simple random sampling and in second stage proportionate random sampling method is used for selection of students. The population elements have been chosen based on certain parameters as follows:

1. The respondents should have at least stayed in the university for 12 months

2. The respondents should be at ease and should have sufficient time for filling the questionnaire of the surveyor.

**Sample Size**

The sample size will be selected that would be adequate to represent the whole population, and also give the true picture. The present population is expected to be more than 60,000 in the chosen six private universities and five Public Universities. With 95% confidence level and 5% confidence interval, the total sample size would be restricted to 387 student respondents studying in the private universities located in Assam, Arunachal Pradesh, Nagaland, Tripura, and Meghalaya under the study. The behaviour of these students is observed and data were collected through questionnaire method. The individual viewpoints were considered as a sampling unit for the research work.

**Table-2: Number of students considered from different selected universities**

| University | Approx. University strength in 2019 | Number of Responses | % of the sample size |
|---|---|---|---|
| Don Bosco University | 2300 | 40 | 10.0 |
| Kaziranga University | 3696 | 50 | 12.5 |
| Royal Global University | 2500 | 40 | 10.0 |
| Arunachal University of Studies | 4300 | 50 | 12.5 |
| The ICFAI University, Nagaland | 1000 | 30 | 7.5 |
| Mahatma Gandhi University | 845 | 20 | 5.0 |
| Dibrugarh University | 2223 | 40 | 10.0 |
| Gauhati University | 2195 | **37** | 9.31 |
| Rajiv Gandhi Central University | 995 | 30 | 7.5 |
| Nagaland University | 421 | 20 | 5.0 |
| Tripura University | 2751 | 40 | 10.0 |
| TOTAL | 23226 | 397 | 100 |

Source: Author's compilation

The study undertakes the five states located in the Northeastern region of India mainly due to the existence of prominent private players in these states. The states include Assam, Arunachal Pradesh, Nagaland, Tripura, and Meghalaya. The sample size is selected that would be adequate enough to represent the whole population, and also give the true picture. With 95% confidence level and 5% confidence interval, the total sample size would be restricted to 397 student respondents studying in the private universities.

**Data Analysis & Interpretation**

The first objective aims at understanding the perception of students towards the private universities especially operating in the north eastern region of India. The main aim is to understand the role played by them in providing higher education and how it has managed to create a perception in the minds of the students. Out of the 397 responses collected from these universities, 250 respondents are from private universities and another 147 respondents are from the public universities. As the study specially focuses on the private universities of the North East, the total number of respondents are higher in case of private universities and only a minimum number is collected for comparing them with those of the public universities. Here, however, only the responses from the private universities would be analysed.

The questionnaire includes a set of questions in the 5-point Likert type scale where they are enquired about some major aspects of the private universities to learn about their perceptions towards it. Firstly, a set of 17 questions are asked to the respondents to know about their motivation for pursuing higher education. Secondly, a total of 17 questions have been asked to the respondents to understand their satisfaction level with the private universities located in the North East of India.

In order to identify the underlying factors for each of these questionnaire items, factor analysis have been conducted. Factor analysis allows the researcher to identify the number of factors corresponding to a particular series of questionnaire items and help extract the underlying factors from it. The results of the factor analysis are provided below.

## Table 3 - Component Loadings

| | Component | | | |
|---|---|---|---|---|
| | **1** | **2** | **3** | **Uniqueness** |
| M1 | | 0.684 | | 0.508 |
| M2 | | 0.551 | | 0.685 |
| M3 | | 0.518 | | 0.627 |
| M4 | 0.639 | | | 0.591 |
| M5 | 0.618 | | | 0.493 |
| M6 | | 0.438 | | 0.426 |
| M7 | | | 0.593 | 0.471 |
| M8 | | 0.508 | | 0.682 |
| M9 | | 0.435 | | 0.714 |
| M10 | 0.463 | | | 0.769 |
| M11 | | | 0.615 | 0.609 |
| M12 | | 0.440 | | 0.621 |
| M13 | | | 0.509 | 0.693 |
| M14 | 0.409 | | | 0.830 |
| M15 | 0.555 | | | 0.673 |
| M16 | | 0.453 | | 0.781 |
| M17 | | 0.553 | | 0.768 |

Note. 'varimax' rotation was used
Source: Author's compilation

Using the Principal Component Analysis (PCA) through Varimax rotation, it is found that with the 17 items listed under motivations to pursue higher education, they can be extracted under three factors based on their nature. Here the three factors created are Personal (M1, M2, M3, M6, M8, M9, M12, M16 & M17) Financial (M7, M11 & M13) and Job Prospect (M4, M5, M10, M14 & M15). As these factor loadings are more than 0.4 all of these can be considered as significant predictors of its underlying factors for a sample size of more than 200 (Hair et al., 2006). The Personal factor includes a set of motivating attributes that would be achievable by the respondents through their higher education. The second factor is that of Financial which implies the motivation of the students to pursue higher education is purely based on the attainment of financial stability. Lastly, the third motivation is Job Prospect which indicates the motivation of students to study further in desire of securing a good job. The description of these factors are shown below.

## Table 4 – Questionnaire Item Details

| Extracted Factor | Questionnaire Items | Frequency |
|---|---|---|
| Personal | I want to fulfil my parents' wishes | 9 |
| | I want to get professional qualification | |
| | I like studying | |
| | I want to pursue higher education | |
| | I want Personal development | |
| | I want to do creative work | |
| | I want to be in leadership position | |
| | I want to help in the development of my country | |
| | I want to get social prestige and Status | |

| Extracted Factor | Questionnaire Items | Frequency |
|---|---|---|
| Financial | I want to earn high salary | 3 |
| | I want better future and prosperity | |
| | I want to have financial security | |
| Job Prospect | I want to get a job | 5 |
| | I want to set up my own business | |
| | I want to be more relevant on the job | |
| | I want to have more job opportunities | |
| | I want a Government Job | |

Source: Author's compilation

As a part of the PCA, the Bartlett's test of Sphericity and the Kaiser-Meyer-Olkin test for checking the sampling adequacy have been initiated.

With the Bartlett's test of Sphericity being significant at 0.05 significance level and the overall KMO value being more than 0.7, it can be stated that the sample selected is adequate for the analysis of the above considered variables.

For measuring the perception of students towards the private universities and the higher education enhanced by these universities, another scale in the 5 Point Likert type is used. This includes a set of questions which estimates the satisfaction levels of the students along with the perception they hold about these universities. There are a total of 14 items that measure the overall perception of the students towards the private universities and 3 items measure the satisfaction levels of the respondents about being associated with the private universities.

The second important aspect enquired about in the study is that of service quality. As the private institutes are designed to especially meet the valued needs of the students and their guardians, the service quality offered by these institutes are of utmost importance when understanding the perception of students. The nature and level of service quality provided by the private universities has the potential to further enhance or decline the perception formulated amongst the students towards it. Therefore, in order to understand about the service quality dimensions in the private universities, the SERVQUAL model has been used and a questionnaire including 20 items is presented to the respondents. The model comprises of five important attributes that measure the overall service quality of an organisation. These include – reliability, responsiveness, assurance, empathy and tangibles. The table below represents all the five aspects of the model along with their descriptive.

## Table 5 - SERVQUAL Items

| Variable | Questionnaire Item | Names in the Analysis |
|---|---|---|
| Reliability | I think the higher education institutes in North East India provides services as promised | HEP1 |
| | I think they give sincere interests in solving personnel problems | HEP2 |
| | I think they carry out the services rightly in the very first time | HEP3 |
| | I think these higher education institutes informs when certain events would take place | HEP4 |
| Responsiveness | The institutes provide the required services on time to the students | HEP5 |
| | All the employees working in the higher education institutes in Northeast give prompt service to their students | HEP6 |
| | The employees are always willing to help the students | HEP7 |
| | The queries raised are promptly addresses by the staff members in these institutes | HEP8 |

| Variable | Questionnaire Item | Names in the Analysis |
|---|---|---|
| Assurance | I think the students in these higher education institutes trust the employees | HEP9 |
| | I think the students feel safe when receiving various services in the campus | HEP10 |
| | All the employees in these institutes are courteous towards the students | HEP11 |
| | The professors in the institutes have proper knowledge to address the questions of the students | HEP12 |
| Empathy | Each student is given individual attention | HEP13 |
| | The students are dealt with care in the higher education institutes of Northeast | HEP14 |
| | The staff members do keep the student's interest at priority | HEP15 |
| | The institute understands the specific needs of the students | HEP16 |
| Tangibles | The institutes have modern equipment's available | HEP17 |
| | The visual appearance of the physical facilities is quite appealing | HEP18 |
| | The staff members in the institute are properly dressed and behaved | HEP19 |
| | The institutes provide flexible working hours | HEP20 |

Source: Author's compilation

In order to understand the service quality aspect in the private universities in the Northeastern states in India, there is a Multiple Linear Regression conducted among the five aspects of service quality and the three motivating factors identified in the first objective i.e., Personal, Financial and Job Prospect set of motivating factors of the students towards the idea of higher education sector. This analysis would help in understanding if the inbuilt set of motivation in the students has any impact on enhancing each of the qualities of service quality for the private universities. The regression analysis is conducted five times where for each round, the individual service quality factors are taken as the dependent variables and the three motivating factors are considered as the independent factors.

## Table 6 - Model Fit Measures- Reliability

| | | | | Overall Model Test | | | |
|---|---|---|---|---|---|---|---|
| Model | R | R² | Adjusted R² | F | df1 | df2 | p |
| 1 | 0.174 | 0.0301 | 0.0183 | 2.55 | 3 | 246 | 0.057 |

Source: Author's compilation

## Table 7 - Model Coefficients - Reliability

| Predictor | Estimate | SE | T | p |
|---|---|---|---|---|
| Intercept | 4.7244 | 0.357 | 13.235 | < .001 |
| Personal | -0.1205 | 0.0613 | -1.965 | 0.051 |
| Financial | -0.0214 | 0.0462 | -0.463 | 0.644 |
| Job Prospect | -0.1024 | 0.0572 | -1.789 | 0.075 |

### Table 8 - Model Fit Measures- Responsiveness

| Model | R | R² | Adjusted R² | Overall Model Test | | | |
|-------|---|-----|-------------|-----|-----|-----|-----|
| | | | | F | df1 | df2 | P |
| 1 | 0.285 | 0.0811 | 0.0699 | 7.23 | 3 | 246 | < .001 |

Source: Author's compilation

### Table 8 - Model Coefficients - Responsiveness

| Predictor | Estimate | SE | T | p |
|-----------|----------|-----|---|---|
| Intercept | 5.5914 | 0.5553 | 10.07 | < .001 |
| Personal | 0.0217 | 0.0954 | 0.227 | 0.821 |
| Financial | 0.0975 | 0.0718 | 1.358 | 0.176 |
| Job Prospect | 0.3761 | 0.089 | 4.226 | < .001 |

Source: Author's compilation

### Table 9 - Model Fit Measures- Assurance

| Model | R | R² | Adjusted R² | Overall Model Test | | | |
|-------|---|-----|-------------|-----|-----|-----|-----|
| | | | | F | df1 | df2 | P |
| 1 | 0.487 | 0.237 | 0.228 | 25.5 | 3 | 246 | < .001 |

Source: Author's compilation

### Table 10 - Model Coefficients - Assurance

| Predictor | Estimate | SE | T | p |
|-----------|----------|-----|---|---|
| Intercept | 7.891 | 0.5399 | 14.61 | < .001 |
| Personal | 0.495 | 0.0928 | 5.34 | < .001 |
| Financial | 0.214 | 0.0698 | 3.07 | 0.002 |
| Job Prospect | 0.475 | 0.0865 | 5.49 | < .001 |

Source: Author's compilation

### Table 11 - Model Fit Measures- Empathy

| Model | R | R² | Adjusted R² | Overall Model Test | | | |
|-------|---|-----|-------------|-----|-----|-----|-----|
| | | | | F | df1 | df2 | P |
| 1 | 0.132 | 0.0174 | 0.00544 | 1.45 | 3 | 246 | 0.228 |

Source: Author's compilation

### Table 12 - Model Coefficients - Empathy

| Predictor | Estimate | SE | T | p |
|-----------|----------|-----|---|---|
| Intercept | 4.2382 | 0.3161 | 13.408 | < .001 |
| Personal | 0.0364 | 0.0543 | 0.671 | 0.503 |
| Financial | 0.0714 | 0.0409 | 1.748 | 0.082 |
| Job Prospect | 0.0239 | 0.0507 | 0.471 | 0.638 |

**Table 13 - Model Fit Measures- Tangibles**

| Model | R | R² | Adjusted R² | Overall Model Test | | | |
|---|---|---|---|---|---|---|---|
| | | | | F | df1 | df2 | P |
| 1 | 0.328 | 0.107 | 0.0965 | 9.86 | 3 | 246 | < .001 |

Source: Author's compilation

**Table 14 - Model Coefficients – Tangibles**

| Predictor | Estimate | SE | T | p |
|---|---|---|---|---|
| Intercept | 5.699 | 0.3458 | 16.48 | < .001 |
| Personal | 0.185 | 0.0594 | 3.12 | 0.002 |
| Financial | 0.102 | 0.0447 | 2.28 | 0.024 |
| Job Prospect | 0.183 | 0.0554 | 3.3 | 0.001 |

Source: Author's compilation

Interpretation – Analysing all the five regression models, it can be found that the ones with Reliability and Empathy is not statistically significant with respect to the three motivating factors. On the other hand, looking at the three significant models it can be found that the adjusted R2 for Responsiveness, Assurance and Tangibles stand at 0.0699, 0.0054 and 0.0965. Although these are quite small variances caused in the service quality parameters, the highest can be found to be executed on the level of agreement towards the Tangibles of the universities.

Linear Regression is conducted to understand student perception and satisfaction, considering reliability, responsiveness, assurance, empathy, and tangibles as independent variables. The results of the study are as follows-

**Table 15 - Model Fit Measures- Perception**

| Model | R | R² | Adjusted R² | Overall Model Test | | | |
|---|---|---|---|---|---|---|---|
| | | | | F | df1 | df2 | p |
| 1 | 0.964 | 0.928 | 0.927 | 633 | 5 | 244 | < .001 |

Source: Author's compilation

**Table 16 - Model Coefficients – Perception**

| Predictor | Estimate | SE | t | p |
|---|---|---|---|---|
| Intercept | 0.21989 | 0.0893 | 2.462 | 0.014 |
| Reliability | 0.27245 | 0.01478 | 18.429 | < .001 |
| Responsiveness | 0.26841 | 0.00904 | 29.697 | < .001 |
| Assurance | 0.29101 | 0.00975 | 29.843 | < .001 |
| Empathy | 0.09893 | 0.01758 | 5.628 | < .001 |
| Tangibles | 0.00739 | 0.01557 | 0.474 | 0.636 |

Source: Author's compilation

**Table 16 - Model Fit Measures- Satisfaction**

| Model | R | R² | Adjusted R² | Overall Model Test | | | |
|---|---|---|---|---|---|---|---|
| | | | | F | df1 | df2 | p |
| 1 | 0.683 | 0.467 | 0.456 | 42.7 | 5 | 244 | < .001 |

Source: Author's compilation

### Table 17 - Model Coefficients - Satisfaction

| Predictor | Estimate | SE | t | p |
|---|---|---|---|---|
| Intercept | 0.2056 | 0.3896 | 0.528 | 0.598 |
| Reliability | 0.0223 | 0.0645 | 0.346 | 0.729 |
| Responsiveness | 0.1294 | 0.0394 | 3.283 | 0.001 |
| Assurance | 0.0522 | 0.0425 | 1.227 | 0.221 |
| Empathy | 0.6843 | 0.0767 | 8.923 | < .001 |
| Tangibles | 0.4791 | 0.0679 | 7.056 | < .001 |

Source: Author's compilation

Interpretation – For the perception model it can be found that p-value stands at 0.001 and the adjusted R2 is 0.927. This means that for every unit change in the independent variables there is 92.7% variance caused in the perception of students towards private universities in the Northeast. This reflects the immense capabilities of the service quality dimensions to cause a very high impact on building the perception of the students. On the other hand, considering the satisfaction of the students based on the service quality provided by the private universities in the region, it is found that the adjusted R2 value stands at 0.456 or 45.6%. While for perception the factor of Tangibles does not have a significant impact, in case of satisfaction reliability and assurance are not contributing towards the satisfaction levels of the students. This analysis clearly points out the drawbacks existing in the private universities of the Northeast in being able to generate ultimate satisfied customers.

## Discussion & Conclusion

The study investigates students' perceptions of public and private universities in the North East of India, covering eight states including Assam, Arunachal Pradesh, Tripura, Nagaland, Manipur, Mizoram, Meghalaya, and Sikkim. The region is facilitated by central, state-level, and private universities. The study aims to understand students' perceptions of emerging private universities in the region. It compares public and private universities to provide a holistic view. The quantitative results, based on statistical measures, can be useful for researchers, educational authorities, and stakeholders in the system. Some of the major findings located through this study are as follows-

### 1. Motivating Factors for Higher Education

Students in North East India are motivated to pursue higher education due to three main factors: personal desire, financial requirements, and job prospects. Personal motivation stems from the desire to study, fulfil parental wishes, and achieve social status. Financial requirements drive students to pursue higher education for stability and security. Job prospects involve achieving career goals, such as better jobs or starting a business. A study using PCA has identified these three motivating factors impacting students' decisions to pursue higher education in the region.

### 2. Relationship between Perception of Students towards Private Universities and the three Motivating Factors

It is found that when the three motivating factors are analysed with respect to the perception of students held towards the private universities, it found that all the three factors contribute towards forming their perceptions. It suggests that the perception building towards private universities is largely dependent on the motivation of the students for pursuing higher education.

### 3.Importance of Service Quality in Perception Building towards Private Universities

The role played by service quality in terms of student's perception building process is quite effective. The five components of service quality namely reliability, responsiveness, assurance, empathy and tangibles have significant roles to play when analysing the perception and satisfaction of students in the North East India towards the private universities. Hence, the service quality part forms an important agenda for the perception building process for the private universities.

The study offers several future research opportunities, including a quantitative approach that can be analysed using qualitative or mixed methods, examining variables affecting student perception across different locations, conducting comparative studies among universities in North East and India, and incorporating the increasing role of technology in education into the model for future studies. These insights can provide valuable insights into the perception of students in various educational settings.

## References

- Albaradie, R. (2018). Perception of students and teachers about didactic teaching: A cross-sectional study. Saudi Journal for Health Sciences, 7(2), 107. https://doi.org/10.4103/sjhs.sjhs_28_18

- Balagova, L., &Halakova*, Z. (2018). Teacher-Students´ Interaction in Comparison of Teacher´s Self-perception and Students´ Point of View. European Journal of Educational Research, 7(3), 465–472. https://doi.org/10.12973/eu-jer.7.3.465

- Cai, E. Y. L., & Liem, G. A. D. (2017). 'Why do I study and what do I want to achieve by studying?' Understanding the reasons and the aims of student engagement. School Psychology International, 38(2), 131–148. https://doi.org/10.1177/0143034316686399

- Chatterjee, S., & Bhattacharjee, K. K. (2020). Adoption of artificial intelligence in higher education: a quantitative analysis using structural equation modelling. Education and Information Technologies, 25(5), 3443–3463. https://doi.org/10.1007/s10639-020-10159-7

- Chong, W. H., Liem, G. A. D., Huan, V. S., Kit, P. L., & Ang, R. P. (2018). Student perceptions of self-efficacy and teacher support for learning in fostering youth competencies: Roles of affective and cognitive engagement. Journal of Adolescence, 68(1), 1–11. https://doi.org/10.1016/j.adolescence.2018.07.002

- Eccles, J. S., & Roeser, R. W. (2011). Schools as Developmental Contexts During Adolescence. Journal of Research on Adolescence, 21(1), 225–241. https://doi.org/10.1111/j.1532-7795.2010.00725.x

- Garcia-Iruela, M., &Hijon-Neira, R. (2020). What Perception Do Students Have About the Gamification Elements? IEEE Access, 8, 134386–134392. https://doi.org/10.1109/ACCESS.2020.3011222

- Gil-Pérez, I., Rebollar, R., &Lidón, I. (2020). Without words: the effects of packaging imagery on consumer perception and response. Current Opinion in Food Science, 33, 69–77. https://doi.org/10.1016/j.cofs.2019.12.006

- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). Multivariate Data Analysis (6th ed.). Pearson Prentice Hall.

- Jacob, I., Khanna, M., & Rai, K. A. (2020). Attribution analysis of luxury brands: An investigation into consumer-brand congruence through conspicuous consumption. Journal of Business Research, 116, 597–607. https://doi.org/10.1016/j.jbusres.2019.07.007

- Jena, P. K. (2020). Impact of COVID-19 on Higher Education in India. International Journal of Advanced Education and Research, 5(3), 77–81.

- Tilak, J. B. G. (2020). How Do Students Fund their Higher Education in India? A Study of Loan Financing in Engineering Education. Johepal, 1(1), 4–24.

- Timizar-Le Pen, T., Marchand, C., Léocadie, M., &Rothan-Tondeur, M. (2020). Reflective writing: Implementation and learning perception from students and teachers of French nursing schools. Nurse Education in Practice, 49, 102921. https://doi.org/10.1016/j.nepr.2020.102921

- Watt, H. M. G., Carmichael, C., &Callingham, R. (2017). Students' engagement profiles in mathematics according to learning environment dimensions: Developing an evidence base for best practice in mathematics education. School Psychology International, 38(2), 166–183. https://doi.org/10.1177/0143034316688373

- Wendin, K. M., & Nyberg, M. E. (2021). Factors influencing consumer perception and acceptability of insect-based foods. Current Opinion in Food Science, 40, 67–71. https://doi.org/10.1016/j.cofs.2021.01.007