Research on Humanities and Social Sciences
ISSN 2224-5766 (Paper) ISSN 2225-0484 (Online)
Vol.12, No.23, 2022

Perceptual Map (PM) and Management Students Satisfaction Index (MSSI): A Road Map for Academic Excellence

Ram Komal Prasad[1] Sanjeev Verma[2]
1.Institute of Co-operative and Corporate Management Research & Training (ICCMRT), Lucknow
2. National Institute of Industrial Engineering (NITIE), Mumbai

Abstract
This paper aims to develop perceptual mapping (PM) and Management student's satisfaction index (MSSI) in Indian context. On the basis of available pertinent literature and theoretical contemplations on students' satisfaction for management education (MEQUAL), generic ACSI method was followed through average weighted index to estimate the proposed satisfaction index in different formats on management institutions viz. public university, private university, affiliated institutions and autonomous institutions. Partial least square method and multi-dimensional scaling have been used for perceptual mapping to understand the attributional contrast among different formats of management institutions. Perceptual map showed academic aspect and physical support are perceived more favourably in public and autonomous institutions while behavioral response and professional assurance is high in private and affiliated institutions. Institute Industry Interaction is found to equally appealing in all formats of management institutions. It is an empirical investigation on management students satisfaction through service quality framework (MEQUAL scale). The paper expands management education service satisfaction and develops an index that can be used to rate or comprehend satisfaction altitude of students as academic service instilled to students (service recipient). Researcher/ faculty members who plans to do a student satisfaction study could benefit from the proposed model as it will provide valuable insights about the academic interactions with students and other stakeholders (promoter/ administrator) of management education in Indian states. This paper provides a significant theoretical scaffold for estimating satisfaction index, perceptual positions, comparative ratings and causal structured model for management students. It will also guide other stakeholders for academic excellence in management education.
Keywords: Satisfaction Index, Students satisfaction, Service Quality, Management Education
DOI: 10.7176/RHSS/12-23-02
Publication date: December 31st 2022

Introduction

Customer satisfaction is a significant area in behavioural dynamics of consumers under marketing management that measures how products or services produced and offered/ supplied by an organisation/institution and subsequently consumed by consumers, meet or surpasses their expectation. Satisfaction reflects the degree to which customers' experience evokes positive feelings (Rust and Oliver, 1994).It could also be defined as a customers' post-purchase valuation of a product or service against the expectation and subsequent performance or satisfaction standard.

Studies on customer satisfaction have been significant as it provides marketers/ managers and business owners with a metric that can used to manage and improve their business performance. A key motivation for the growing emphasis on customer satisfaction is that, the higher customer satisfaction can lead to a stronger competitive position resulting in higher market share, higher financial and non-financial gains (Fornell, 1992) and attracting new customers. Customer satisfaction is supposed to be a significant determinant of positive brand image; positive word-of-mouth and customer loyalty in the form of repeated purchase, referral consumers and creating favourable database of possible future customers (Fornell et al., 1996).

In the fast growing and comprehensive business environment, success and endurance necessitates more than high-quality products and services. To succeed in such industrial environment, organization must provide outstanding experience to the customers (Adrian Palmer, 2010). Though business identify the need to produce cost-effective assessment for their customers in the form of experiences, there is dearth of research studies intended to classify and measure the significant constructs for the customers' (students) experience in management education industry in India for its' universities and institutes offering post graduate diploma or masters in business administration. Service quality and satisfaction also depends upon the customers' predisposition foe cognitive and affective behaviours (Dabholkar, 1995). On the basis of fundamental theories on service quality→ satisfaction, a causal order has received significantly strongest support in the literature as well as in most of the empirical researches; we have proposed accessing the service satisfaction index and perceptual mapping, comparative rating and causal relationship amongst the constructs of service quality that leads to students satisfaction in management education in north Indian states.

Perceived service quality and its resultant satisfaction have been demonstrated directly which have positive effect on consumers' sense of service satisfaction. Service quality is an antecedent of consumer satisfaction,

which has a significant on purchase intentions (Cronin and Taylor, 1992). Sufficient numbers of service quality measurement scales are now available across the literature right from generic gap model to specific and subjective models. The present study we refer to our earlier research paper The MEQUAL Scale: measure of service quality in management education (Verma and Prasad, 2017) and have conceptualised further research investigation on students' satisfaction index and their perceptual mapping, comparative rating and causal modelling.

The American Customer Satisfaction Index (ACSI) was developed and documented on the framework of Swedish Customer Satisfaction Barometer (SCSB) which is cross-industry measure of customer satisfaction in the United States (Fornell et al., 1996).The present Customer satisfaction index is a unique measurement framework enables organisations and institutions in India to benchmark major aspects of students experience with industry peers and eventually with best in showing the results. Students (service recipients) also benefit by getting an objective & independent end satisfaction based measure to benchmark organisations & institutions.

The ACSI model is broadly used to gauge satisfaction and loyalty at the commercial level (Anderson and Fornell, 2000; Hsu, 2008; Terblanche, 2006). Anderson and Fornell (2000) have spotted a strong positive relationship between ASCI and profitable gains in American environment. Terblanche (2006) applied ASCI to the South African countries in transport industry to elucidate and estimate customer retention. Additionally, a number of researchers have used in relevant researches and indicated that this customer satisfaction index (CSI) can predict firms' productivity and promote value to the customers (Anderson et al., 1994, 1997; Eklof et al., 1999). The ACSI presents a straight and consequential measure of customer consumption and usefulness, subsequent consumer behaviour, and business performance. The ACSI model is composed of six factors: perceived quality, customer expectations, perceived value, overall customer satisfaction, customer complaints, and customer loyalty. Each factor is linked to the others through a causal relationship (Fornell et al.1996).

The present study proposed a new customer satisfaction index named as Students Service Satisfaction Index (SSSI) in management education sector in north Indian context. The objective of this study is to propose an index for management students' satisfaction index (M-SSI) along with perceptual mapping, rating their perceptual values and causal relationship for criterion and predictors variables.

The M-SSI model is a structural model based on the assumptions that customer (Students) satisfaction is caused by some factors such as perceived quality (PQ), this paper is structured in customer satisfaction, theoretical design for the MEQUAL Scale (Verma & Prasad, 2017), the creation of the M-SSI model, perceptual mapping, relative satisfaction ratings of the respondents on pre designed MEQUAL Scale with relevant discussions and conclusions.

Review of Literature

Service quality can be identified as conformance or fitness of services that is crucial in differentiating competitor service offerings, and creating competitive advantage. ServQual is a service quality assessment instrument developed by Parasuraman et al. (1988) and includes five dimensions: tangibles, reliability, responsiveness, assurance, and empathy and have been successfully applied across service organizations popularised as Gap model (Expectation-Perception). ServPerf model have been created by Cronin and Taylor (1994) on the basic concept of performance only in service setting. HedPerf developed by Abdullah (1995) for higher education. The MeQual Scale (Verma & Prasad, 2107) has been taken as basic satisfaction measurement scale for management students in north Indian states. Thus, service quality clearly influences customer satisfaction and consumption values regardless of general or customized service.

Banking Service Quality (BSQ) Index, a national indicator reflecting the level of service quality within the banking sector providing high quality services was developed by Firdaus Abdullah, Rosita Suhaimi Gluma and Saban Jamil Hamali (2011), contributed further to the fast growing literature on service quality by advancing a new 29-item measuring instrument, specifically tailored for the banking sector.

S.-H. Hsu (2008), developed and tested a new index for measuring electronic-customer satisfaction (e-CSI) and found it to significantly predict customer loyalty and overall customer satisfaction. The designed index provided a model to online retailers to understand the explicit issues that significantly influence overall customer satisfaction by accessing the causal relationship in the e-CSI model and the strategic management initiatives in the execution of marketing strategies and consumer behaviour dynamics. The author has used the partial least squares (PLS) method to test the theoretical model and to derive the e-CSI score on primary data collected from relevant customers.

SeungHyun Kim JaeMin Cha Bonnie J. Knutson Jeffrey A. Beck, (2011), conceptualised experience management (CEM) and developed a customer experience Index (CEI) can help management measure the effectiveness of its customer efforts by identifying seven experience dimensions which were validated and managers can to measure as how important each attribute is to their target markets and customer towards positive experience.

Ali Tu¨rkyılmaz and Cos¸kun O¨zkan (2007) thrashed out their customer satisfaction index model for

mobile phone sector in Turkey. The resultant model is valuable guide for the managers in formulating competitive marketing strategies for mobile phone marketing. For the companies, independent and uniform measurement characteristics of the CSI in Turkey, the mobile phone satisfaction model provide a useful tool for accessing performance and systematic standard for customer satisfaction over time. Considering the results of the model, the limited resources of the firms allocated for critical factors which have important impacts on customer satisfaction.

Deng, Yeh, & Sung (2013) proposed a Hotel customer satisfaction index (H-CSI) model and used it to estimate customer satisfaction level through collection of primary data from the tourists who visit and stay in tourist hotels in the home country of abroad. The H-CSI scale items were designed on the basis of review of appropriate literature and the feedback as well as suggestions recorded from focus group discussions. In the process partial least squares (PLS) method was used to authenticate the measurement instruments and estimated item weights for the customer satisfaction scales were also applied. The H-CSI model is a comprehensive model for the measurement of customer satisfaction that includes most possible antecedents and outcomes in hotel industry. The H-CSI model displayed strong illustrative options in the assessment of customer satisfaction as the model was found reliable for upcoming research studies.

Riadh Ladhari, (2012) examined the lodging quality index (LQI) and validated significantly. LQI assess the relative importance of the five dimensions of hotel industry in Canada. The LQI has been shown to be a reliable instrument for measuring overall service quality and for predicting the service satisfaction as well as behavioural intentions guests.

SeungHyun Kim JaeMin Cha Bonnie J. Knutson Jeffrey A. Beck, (2011), proposed a discreet Consumer Experience Index (CEI) by identifying and validating the dimensionality of the customer experience concept. Measurement scale have been development by adopting a seven-factor model comprised of dimensions like-convenience, environment, benefits, accessibility, incentive, utility, and trust. A twenty six item for CEI was found reliable and valid to measure the fundamental components of a consumer's experience. CEI provide businesses with an effective and novel measurement instrument to understand customer experience which is frequently in use in marketing and management of services and service industry.

O'Loughlin and Coenders,(2004), developed the European Customer Satisfaction Index (ECSI) model using six marketing constructs namely, customer expectations, image, perceived quality of hardware and software, customer satisfaction, perceived value, and customer loyalty. The identified and authenticated six marketing constructs are also linked through a causal relationship. The image construct has a determining influence on customer expectations, that in turn, affect the perceived quality of tangibles and intangibles.

Bruhn and Grund, (2000) developed a Swiss Index of Customer Satisfaction (SWICS) on three factors: customer dialogue, customer loyalty and customer satisfaction. These factors exhibit in a causal relationship in which customer satisfaction affects customer dialogue and customer loyalty, and customer dialogue affects customer loyalty and satisfaction.

Turel and Serenko, (2006)illustrated the Canadian Customer Satisfaction Index model for mobile services modifies the ACSI by adding the category "price tolerance" and replacing "customer loyalty" with "repurchase likelihood". These CSI models reveal that most of them could be improved through the use of more detailed perceived quality factors and it has also been pointed out by many contemporary research studies.

Student Satisfaction Index in Management Education

Customer satisfaction measures whether products and services offered by an organization meet or surpass customer expectations. It is seen as a key performance indicator within an organization. In a competitive marketplace where organizations compete for customers, customer satisfaction is seen as a key differentiator and has increasingly become a key element of the strategy for the growth and survival of an organization. Customer satisfaction represents a measure of organizational performance according to customer needs therefore; the measure of customer satisfaction provides a service quality measure. Customers express their opinion about the services by providing judgments on some service aspects by a well-designed questionnaire that is presented to them.

In spite of many developed satisfaction index, there is lack of student satisfaction index in management education as student are the customers (the service recipients), there is absolute possibility of design and development relevant index. We have also conceptualized on perceptual mapping on quadrants of multi dimensional scale, rating of service quality led satisfaction constructs and causality amongst the constructs through structural equation modeling. We have endeavored to develop a new index model Student Service Satisfaction Index model in which Overall Satisfaction (OS) is criterion variable and other six variables are predictors on the Index.

Methodology

This research used previous studies by Verma and Prasad (2017) as a basis of gaining an understanding of the

factors influencing student perception management education. Students came from four formats of universities/ institutions in the north Indian states and the whole philosophy of satisfaction index for students in management education were followed.

Theoretical Design

This paper follows our theoretical designed scale "The MEQUAL Scale" (Verma and Prasad, 2017) in which we have validated six constructs namely Academic Aspects (AA)with five items that include induction program, teaching pedagogy, course curriculum as per industry requirement, balance between theory and practice, study materials. Professional Assurance (PA) with four items which includes established standards, fair evaluation, academic administration, and placement. Behavioural Response and Supports (BRS) with four items which include supports, problem solving, grievance handling and cordial behaviour. Industry Institute Integration (III) with three items which includes expert session delivery from practicing managers, exposure through projects and industrial assignment. Non-Academic Aspects (NAA) with five items which deals with sports, cultural social events, counselling and emotional supports and Physical Evidence (PE) with four items including building, infrastructure, tangibles, laboratory, workshops, medical, hostel facilities.

Sampling Methodology

We have conducted this study across seven north Indian states to capture the perception of management student on service quality and satisfaction scale especially designed and validated, across the four different formats of management institutions/ universities offering management education to its students viz. the department of management in public universities, faculty of management in private universities, public university affiliated private management institutions and autonomous institutions approved by counsel of technical education of India. The five states we covered are Uttar Pradesh, Uttrakhand, Delhi, Punjab, Haryana, Himachal Pradesh and Jammu & Kashmir.

Proportionate random sampling method have been followed and we have surveyed 15 public university comprising 150 samples of respondent from the final semester of their academic program, 15 private university comprising 150 respondents, 51 university affiliated institutions comprising 510 respondents and 23 autonomous institutions comprising 230 respondents. In total we have surveyed 104 institutions and 1040 respondent on our designed and accepted scale for measuring the label of satisfaction. Out of total 1426 institutions 7.3% institutions (104) were sampled comprising registered students 20030, 5.19% respondent students (1040) properly responded on our instrument (Israel, 2009).

The purpose of this study was to provide information about the students' satisfaction indices (SSIs) and show the results of an SSI study in the management education sector in north Indian states. The SSI model is a structural model based on the assumptions that students' satisfaction is caused by perceived quality (PQ), which is the antecedent of overall customer satisfaction. Here, it has been attempted to develop management students' satisfaction index in management education in north Indian states.

Management students' service satisfaction index (SSSI) has been introduced in Indian educational setting. In this study, the first SSSI model has been developed and applied for Management Education in Indian states as an academic research study to understand the respondents' perception and answers from the survey questionnaire.

The SSSI as a whole can be a valuable guide for the academic managers, academicians, and promoters of management institutions, government and other stakeholders in formulating competitive strategies. For the universities and institutions offering management, education can have independent and uniform measurement characteristics of the SSSI, which can provide a useful tool for tracking performance and systematic benchmarking over time. Considering the SSSI model, the limited resources of the university/institutions can be allocated for critical success factors that have been demonstrated to have important impacts on the Overall Satisfaction of the students.

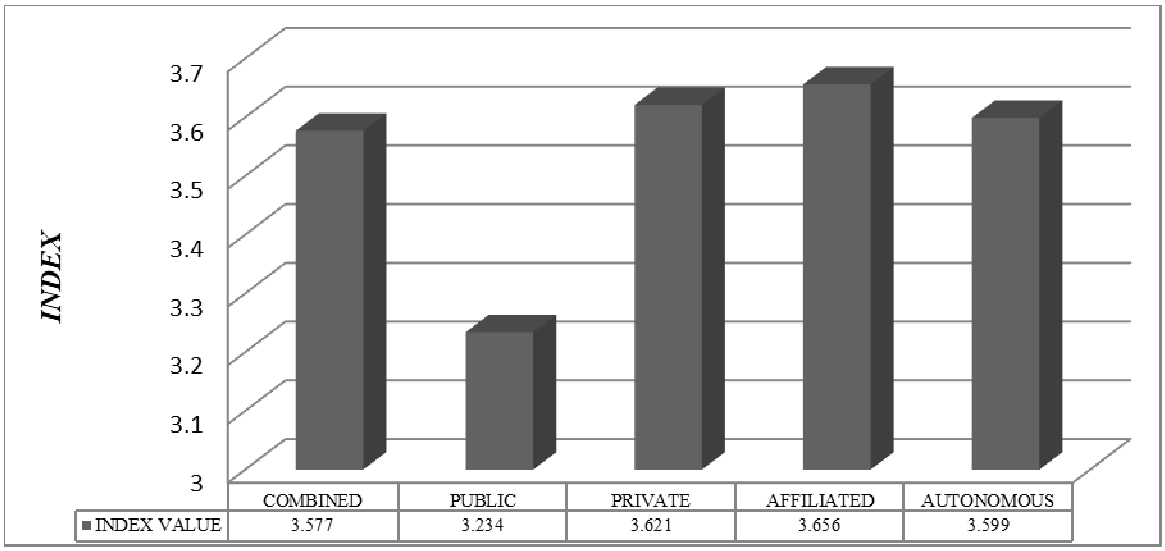
In conclusion, the SSSI model provides important information for the admission decisions of the students and leads to improvements in the quality of educational services they consume. A composite index approach has been followed, which is also a simple and straightforward format that is widely used in planning and evaluation studies such as the human development index and the rating index. Specifically, this satisfaction scale was developed on the basis of factor analysis to measure user satisfaction.

On this basis, it is possible to rank all the sampled institutions on the basis of service quality satisfaction index, which will serve as a roadmap for these institutions to improve their service quality and hence, their service quality satisfaction index. Similarly, an integrated SQ-Satisfaction index could be developed for ranking all the sampled institutions.

$$AWI = \frac{f_{sd}(1) + f_d(2) + f_n(3) + f_a(4) + f_{sa}(5)}{ni \times N}$$

AWI = Average Weighted Index

fsd = Frequency of Strongly Disagree
fd = Frequency of Disagree
fn = Frequency of Neutral
fa = Frequency of Agree
fsa = Frequency of Strongly Agree
N = Total Number of Cases
ni = Number of Items

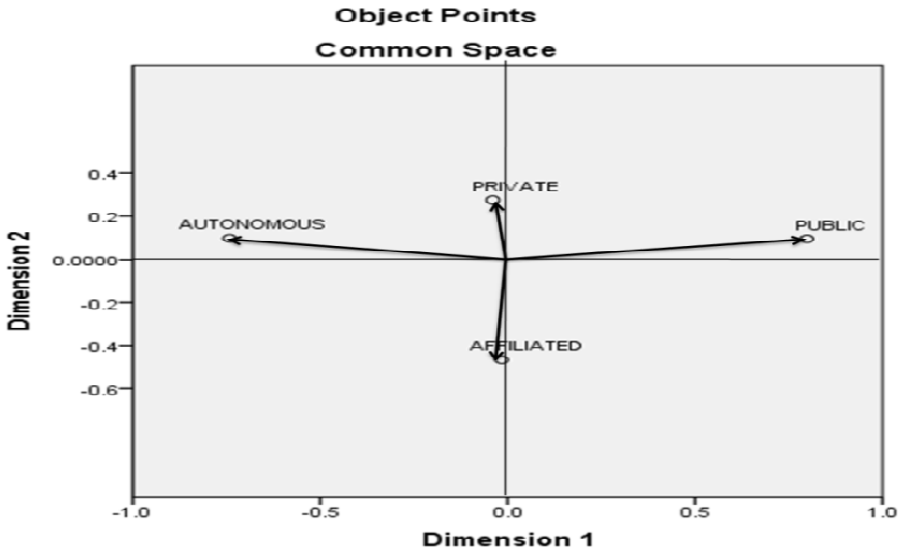


Students' Satisfaction Index for Management Education in North Indian States

The above students' satisfaction index model was formulated on a 5-point Likert scale (i.e., strongly disagree to strongly agree), based on which all the sampled management institutions were indexed. It reveals that public universities had a 3.23 index score, private universities scored 3.62, and affiliated institutes scored 3.65 while autonomous bodies had a 3.59 index score. It implies that the affiliated institutions evoked the highest satisfaction levels among students, whereas public universities had the lowest index score of 3.23. The integrated (combined) index of sampled management institutions worked out to 3.57, which is lower than private, affiliated and autonomous institutes. This model will help the management institutions to access and improve their students' satisfaction levels and such an effort will bring about qualitative and innovative changes in management education in north India.

Perceptual Mapping

Perceptual mapping is a method to analyze the perception of respondents, and it produces a picture or map of the industry that shows how service attributes are perceived in the respondents' mind and suggests how it can be positioned to maximize the preference. Perceptual mapping provides valuable insights for service quality decisions. Perceptual mapping is an excellent way to determine if differences exist between the perceptions of distinct groups. It also tracks the shift in consumer perception of services/products over time.



Perceptual mapping of various formats of management institutions

Remarkably, perceptual mapping indicates that each format is lying on a different quadrant. To begin with, there were six independent constructs/dimensions in the study: Physical Supports, Industry Institute Integration, Behavioral Responses and Support, Academic Aspects, Non-academic Aspects and Professional Assurance. On the basis of these constructs, the formats of management institutions were compared and contrasted.

In the above figure of perceptual mapping, there are two coordinates or dimensions. It can be easily interpreted from the graph that private and affiliated institutions are very close to dimension 1 while public and autonomous institutions are closer to dimension 2. This indicates that while public and autonomous institutions posses a set of common attributes, so do private and affiliated institutions.

It was concluded that dimension 1 comprises of Academic Aspects and Physical Supports and public and autonomous institutions are closer to dimension 1 indicating that these two attributes are present in these institutions. Dimension 2 comprises of Behavioral Response and Supports and Professional Assurance, which are closer to private and affiliated institutions; this indicates that these two attributes are present in the above-mentioned formats of management institutions.

The validity of the above statement can be verified with regression equations in the study, which corroborate the findings. In private and affiliated institutions, BRS and PA had a strong impact, which implies that the institutions pay more attention to facilitating the admitted students carefully and the private ownership is highly committed.

In public and autonomous institutions, AA and PS had a strong impact where academic-related aspects, particularly expert faculty members are available due to government ownership, fund availability, and sufficient infrastructure.

Structural Model Development for Service Quality (SQ) Perception of Management Education in Northern India

The researcher analyzed that though the regression model explained five Service Satisfaction (SS), the nature and extent of relationship among these attributes was not evident. There may be some other mediating effects or other relevant indivisible factors that create significant effect on these SS attribute. Regression analysis can explain the mediating effect but there would be multiple regression equations and each equation would not contain the accurate idea that the other equation represents. Structural Equation Modeling (SEM) facilitates the explanation that interrelationship between the attributes of SS in which all the relevant information from all the regression equations can be complied together and create the most accurate and relevant model for students' perception of SS of management education.

The data collected from all four formats of institutions were processed and to authenticate the output once again structural equation modeling techniques were used. AMOS-20 was run and an alternative index of model fit was developed.

Fit Statistics in the Structural Equation Model

S.No	Goodness- of -fit model index	Recommended value*	Constructs of Scale
1.	Goodness-of-index (GFI)	≥0.90	0.925
2.	Adjusted goodness-of-index (AGFI)	≥0.90	0.908
3.	Tucker –Lewis index (TLI)	≥0.90	0.933
4.	Comparative fit index (CFI)	≥0.90	0.941
5.	Normalized fit index (NFI)	≥0.90	0.919
6.	Root mean square of approximation(RMSEA)	≤0.08	0.051

Hair et al. (1998)

Root Mean Squared Error of Approximation (RMSEA) and Comparative Fit Index (CFI) are the most relevant informative measures of how closely the model corresponds with the data. Overall fit indices such as RMSEA and CFI, thus, provided some evidence that the scale was comparable across management education sectors. RMSEA and CFI are the measures of overall model fit. It summarized the goodness-of-fit of a complete model in a single number, which is easy to understand.

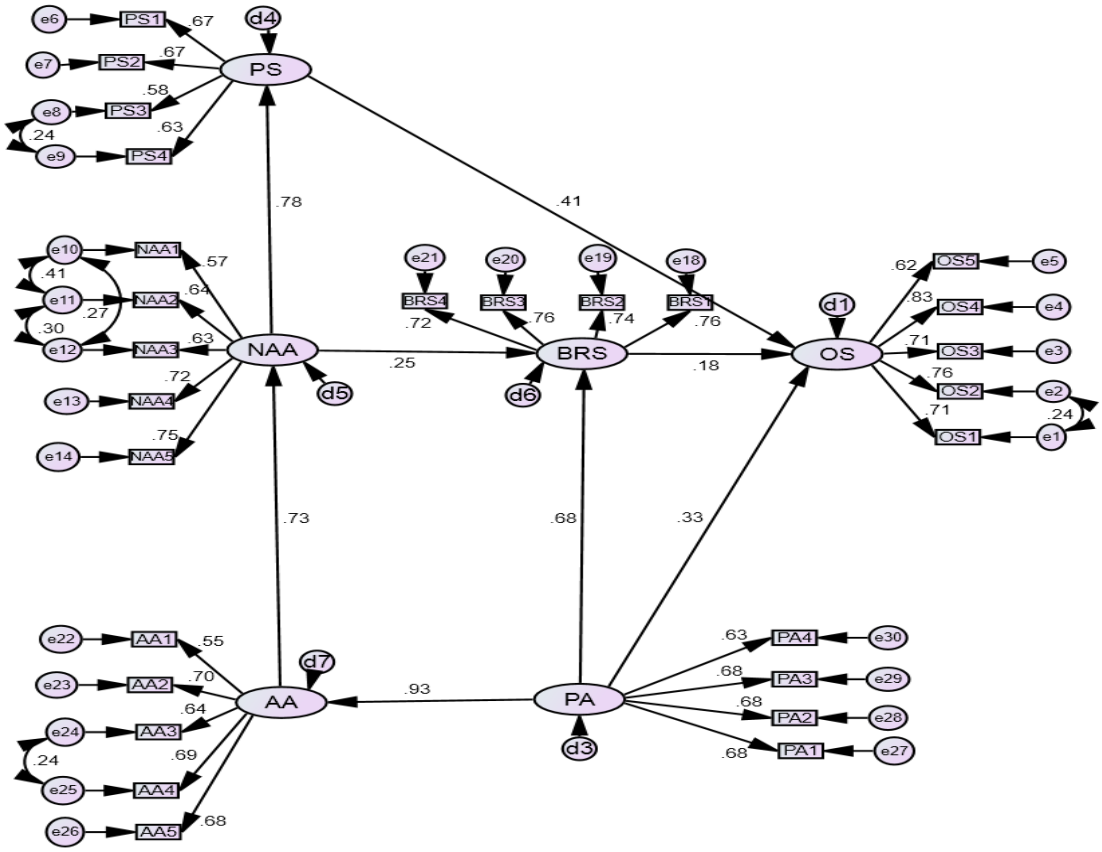
To summarize, a conclusive test of measurement equivalence was performed with modification indices and expected parameter changes for the factor loadings and measurement intercepts.

Tucker-Lewis Index (TLI) and the Comparative Fit Index (CFI) were computed to compare the absolute fit of model to the absolute fit of the independence model. The greater the discrepancy between the overall fit of the two models, the larger the values of these descriptive statistics. The AMOS output contained both latent (unobserved) and manifested (observed) variables along with both causal relationships among latent variables, represented by single-headed arrows and co-relational or bi-directional relationships among several of the residuals. These are represented by the dual-headed arrows connecting e3 with e4 (PS), e1 with e3 (NAA), e3 with e4 (AA) and e1 with e2 in Overall Satisfaction (OS), respectively. The powerlessness measures are identical and measured on the same research participants across time as shared variance due to causes not accounted for by the alienation latent factors. The correlations between the residuals accounts for that additional shared variance.

The AMOS model has shown fit parameters (values) in Figure 4.6 and meets the adequate criteria standards. This verified the results of regression analysis and used statistical measures.

The path in the developed model represented the relationships (i.e., impact of SQ attributes on OS and impact of one SQ attribute on other. It is evident in the model that the estimated coefficients for impact of PS, BRS and PA were 0.41, 0.18 and 0.33 respectively. Without making a statistical judgment it can be ascertained that PS had the most substantial impact, while PA is somewhat less; BRS had the least impact on OS. Moreover, it can be seen that SQ attributes had inter-relationships in which NAA had a higher impact on PS with estimate coefficient (β) 0.78, whereas it had a low impact on BRS with estimate coefficient (β) 0.25.

This implies that in the process of SQ perception by the students, NAA significantly contributed but worked as a mediating attribute on SQ. It may be concluded that if NAA are continuously organized in institutions then PS would definitely improve. Sports, socio-cultural and inter-institutional events along with personality development programs generate the need of adequate and modern infrastructure; this adequately justified the interrelationship between NAA and PS. NAA had the least impact on BRS as NAA would create better relationship between faculty members and the students resulting in improved BRS. Importantly, NAA contributed to PS and BRS but it (NAA) received its value and importance because of AA with estimate coefficient (β) 0.73. AA is the foundation of educational activities. AA would be much better if PA contributes relevantly. In this model, the estimate coefficient (β) of PA is 0.93 for AA, which is the highest coefficient among all SQ attributes in the SQ model. A small positive increase in PA would bring subsequent changes in AA. Further, PA contributes to BRS with the estimate coefficient (β) 0.68 that shows the relative importance of PA on BRS.



Structural Model of Service Quality of Management Education

Academic Aspect (AA), Professional Assurance (PA), Behavioral Response and Support (BRS), Industry Institute Integration (III), Non-Academic Aspect (NAA), Physical Support (PS) and Overall Satisfaction (OS).

Relative Ranking of the Students' Satisfaction on Different Constructs

For adequate comparison among the various formats of institutions, the students' perception on service quality attributes were ranked on the basis of mean values. The respondents (students) perceived Professional Assurance (PA) as the first rank in all formats and the entire management education except the Private Universities was ranked third. BRS was on the second rank in all formats as well as entire management education except in the case of Private Universities where it had the first rank. For all the formats, students perceived the third rank for Academic Aspects except in the case of autonomous universities.

Relative Ranking of the Students' Satisfaction on SQ Attributes

		Rank				
S. No	Constructs	Entire sample (N 1040)	Public University	Private University	Affiliated Institutions	Autonomous Institutions
1	PA	I	I	III	I	I
2	BRS	II	II	I	II	II
3	AA	III	III	II	III	V
4	PS	IV	IV	IV	IV	III
5	NAA	V	V	V	VI	IV
6	III	VI	VI	VI	V	VI

Non-academic Aspects was ranked fifth, as perceived by students across all formats except affiliated and autonomous institutions where it secured the sixth rank on students' perception. The Industry Institute Integration secured the sixth rank as per students' perception in all formats but for affiliated institutes where it was ranked fifth. It is amply clear that ranking of SQ attributes as per students' perception would be guidelines for the managers of the management education in north Indian states.

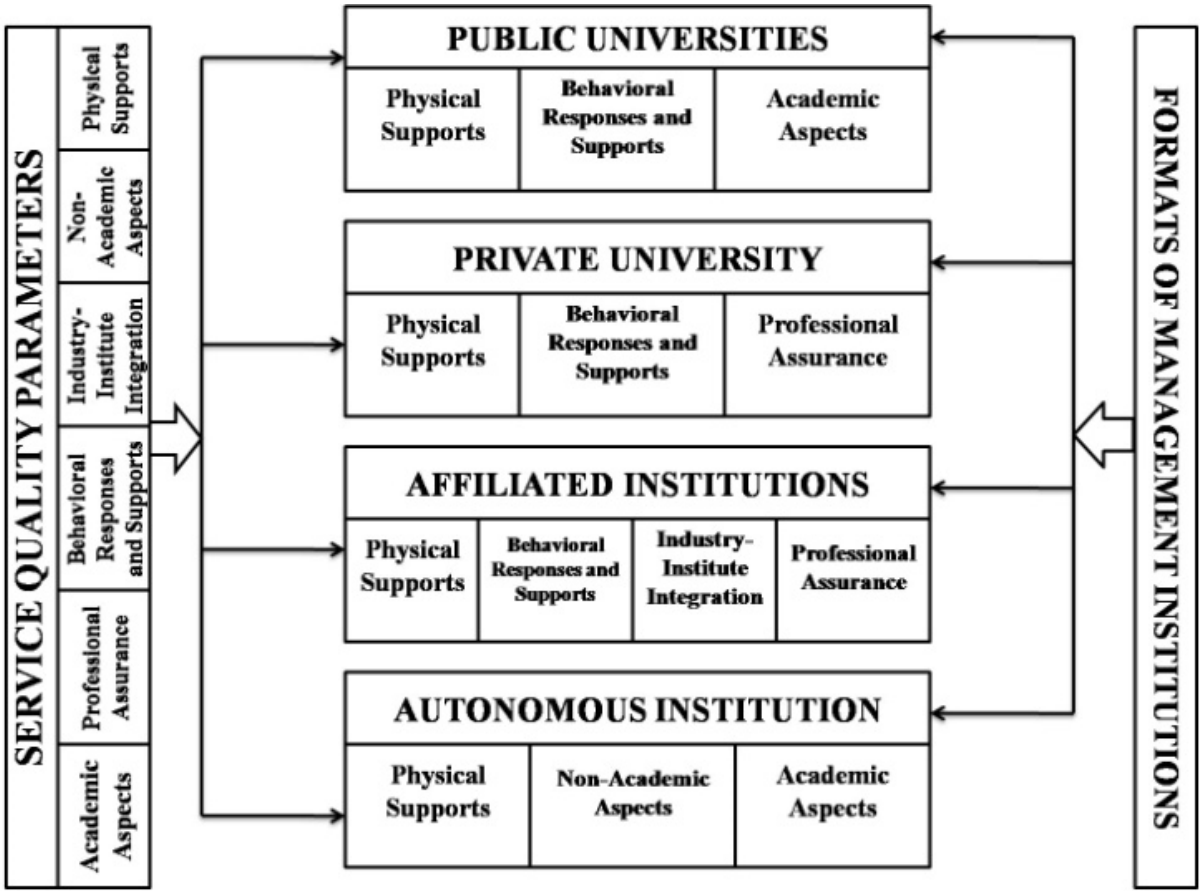
Findings

The findings of this research might have serious implications for how universities/ institutions in Indian states manage the quality and satisfaction label of the student and how their resources are used to enrich the student learning and knowledge reception experience. We contend that identifying profound quality of education and resultant satisfaction as a goal for student overall development, rather than seeking only to satisfying their credential seeking needs. Consideration of profound quality and satisfaction ought to help to focus the edifying mission of the university/ institutions rather than its instrumental economic gains from the promoters and so keep it as a societal institution by and large.

We do not underestimate competition amongst the organisations that might be the goal of the new promoters of universities in private sectors as encouraged by government policy (promotion of managerial and technical education) but delegate to distinctive mission that universities/ institutions themselves can foster academic environment where the students are allowed to let learn through identified constructs in our MEQUAL concept and make the stakeholders aware the real world in which they function, crusade to take a stance themselves on what they want to offer the society that cherishes them. This is central to a notion of our satisfaction index regardless of what actions they (promoters/stakeholders) embark upon.

Conclusion

A number of CSIs have been introduced in due course of time. While some index models (i.e. SCSI, ACSI) are applied in national level, the ECSI being implemented by most of the European Union member countries is an international satisfaction index model (Eklo¨f and Westlund, 2002). We developed and applied the first Management students' satisfaction Index model for various stakeholders of education sectors. This present study is indistinguishable to the previous one as we have used service quality that draws student satisfaction to the education recipients. We have presented students satisfaction modalities inform of figure hereunder for designed four formats of universities/institutions with its identified and tested constructs for easy comprehension of students and stakeholders.



Managerial Implications and Suggestions

The present study and its findings, as well as a theoretical framework, would be helpful to make the educational policy and framework to all the academicians and promoters of management education across north India. The private investor in private sectors would specially be benefitted with the study and its findings regarding how

they should devise their strategy to attract students and how they would satisfy these students such that their contribution could be recognized to the academia and the society as well. This study would be useful to educational planners, educational consultants, and academicians, individuals in the business of education, social workers, and researchers. It will aid them to think and rethink the outcome of management education and how to design the various aspects related to quality of education. The promoters of management institutions can use these findings to design their administrative and academic policy and cater to the students with the best quality of academic services in their institutions.

As a result of our findings in view of central theme and research objectives the students of various socio-economic profiles have shown varied priorities as per their service quality perception which indicates that the administrative set up of Public University should focus on Professional Assurance (PA), Industry Institute Integration (III) and Non-Academic Aspects (NAA) in its items of students perception as given in questionnaire.

Out of our six quality parameters these three factors/parameters need to be carefully taken care off in order to ensure the service quality in management education. The Private University should focus on the service quality factors which are Academic Aspects (AA), Industry Institute Integration (III) and Non-Academic Aspects (NAA) to ensure the level of quality to be delivered to students on items of their responses. The promoters and the other stakeholders should carefully devise academic plans and adequate implementations.

The stakeholders of service delivery in Affiliated Institutions should plan on Academic Aspects (AA) and Non-Academic Aspects (NAA) so that the recipients of management education should feel the level of satisfaction and realize the service quality they received and finally the Autonomous Institutions should concentrate on devising plans on Behavioral Response and Supports (BRS), Industry Institute Integration (III) and Professional Assurance focusing the items of responses. These three factors are most important to autonomous institutions running PGDM program as approved by AICTE.

Reference

- Abdullah, F., Suhaimi, R., Saban, G., & Hamali, J. (2011). Bank service quality (BSQ) index: an indicator of service performance. *International Journal of Quality & Reliability Management*, *28*(5), 542-555.
- Anderson, E. W., & Fornell, C. (2000). Foundations of the American customer satisfaction index. *Total quality management*, *11*(7), 869-882.
- Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). Customer satisfaction, market share, and profitability: Findings from Sweden. *The Journal of marketing*, 53-66.
- Anderson, E. W., Fornell, C., & Rust, R. T. (1997). Customer satisfaction, productivity, and profitability: Differences between goods and services. *Marketing science*, *16*(2), 129-145.
- Askariazad, M. H., & Babakhani, N. (2015). An application of European Customer Satisfaction Index (ECSI) in business to business (B2B) context. *Journal of business & industrial marketing*, *30*(1), 17-31.
- Bruhn, M., & Grund, M. A. (2000). Theory, development and implementation of national customer satisfaction indices: the Swiss Index of Customer Satisfaction (SWICS). *Total Quality Management*, *11*(7), 1017-1028.
- Cronin Jr, J. J., & Taylor, S. A. (1992). Measuring service quality: a re-examination and extension. *The journal of marketing*, 55-68.
- Dabholkar, P. A. (1995). A contingency framework for predicting causality between customer satisfaction and service quality. *ACR North American Advances*.
- Deng, W. J., Yeh, M. L., & Sung, M. L. (2013). A customer satisfaction index model for international tourist hotels: Integrating consumption emotions into the American Customer Satisfaction Index. *International Journal of Hospitality Management*, *35*, 133-140.
- Eklöf, J. A., & Westlund, A. H. (2002). The pan-European customer satisfaction index programme—current work and the way ahead. *Total Quality Management*, *13*(8), 1099-1106.
- Eklof, J. A., Hackl, P., & Westlund, A. (1999). On measuring interactions between customer satisfaction and financial results. *Total Quality Management*, *10*(4-5), 514-522.
- Fornell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *the Journal of Marketing*, 6-21.
- Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryant, B. E. (1996). The American customer satisfaction index: nature, purpose, and findings. *The Journal of Marketing*, 7-18.
- Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryant, B. E. (1996). The American customer satisfaction index: nature, purpose, and findings. *the Journal of Marketing*, 7-18.
- Getty, J. M., & Getty, R. L. (2003). Lodging quality index (LQI): assessing customers' perceptions of quality delivery. *International Journal of Contemporary Hospitality Management*, *15*(2), 94-104.
- Hsu, S. H. (2008). Developing an index for online customer satisfaction: Adaptation of American Customer Satisfaction Index. *Expert systems with Applications*, *34*(4), 3033-3042.

- Kim, S., Cha, J., Knutson, B. J., & Beck, J. A. (2011). Development and testing of the Consumer Experience Index (CEI). *Managing Service Quality: An International Journal*, *21*(2), 112-132.
- Ladhari, R. (2012). The lodging quality index: an independent assessment of validity and dimensions. *International Journal of Contemporary Hospitality Management*, *24*(4), 628-652.
- Lee, J., Lee, J., & Feick, L. (2001). The impact of switching costs on the customer satisfaction-loyalty link: mobile phone service in France. *Journal of services marketing*, *15*(1), 35-48.
- O'Loughlin, C., & Coenders, G. (2004). Estimation of the European customer satisfaction index: maximum likelihood versus partial least squares. Application to postal services. *Total Quality Management & Business Excellence*, *15*(9-10), 1231-1255.
- Palmer, A. (2010). Customer experience management: a critical review of an emerging idea. *Journal of Services marketing*, *24*(3), 196-208.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual: A multiple-item scale for measuring consumer perc. *Journal of retailing*, *64*(1), 12.
- Prasad RK (2016). Service Quality of Management Education in Various Formats of Institutions: A comparative Study. Doctoral Thesis submitted to National Institute of Industrial Engineering (NITIE). Mumbai.
- Prasad RK., Jha MK., & Verma S. (2016). Service Quality in Management Education: A quest for excellence. Royal book publishers.
- Rust, R. T., & Oliver, R. L. (Eds.). (1993). *Service quality: New directions in theory and practice*. Sage Publications.
- Suleiman Awwad, M. (2012). An application of the American Customer Satisfaction Index (ACSI) in the Jordanian mobile phone sector. *The TQM Journal*, *24*(6), 529-541.
- Taylor, S. A., & Cronin Jr, J. J. (1994). An empirical assessment of the SERVPERF scale. *Journal of Marketing Theory and Practice*, *2*(4), 52-69.
- Terblanche, N. S. (2006). An application of the American customer satisfaction index (ACSI) in the South African motor vehicle industry. *South African Journal of Business Management*, *37*(4), 29-38.
- Tsang, N., & Qu, H. (2000). Service quality in China's hotel industry: a perspective from tourists and hotel managers. *International journal of contemporary hospitality management*, *12*(5), 316-326.
- Turel, O., & Serenko, A. (2006). Satisfaction with mobile services in Canada: An empirical investigation. *Telecommunications policy*, *30*(5), 314-331.
- Türkyılmaz, A., & Özkan, C. (2007). Development of a customer satisfaction index model: An application to the Turkish mobile phone sector. *Industrial Management & Data Systems*, *107*(5), 672-687.
- Verma S. and Prasad RK (2017). The MEQUAL Scale: Development and Validation in Management Education. International Journals of comparative education, 19 (4), 193-206.