CHAPTER – III
QUALITY OF SERVICES

3.1. Introduction

Internal marketing and quality of service has direct relation. According to **Hassan et al[217] (2013),** in their research found that internal marketing has direct relation with quality of services. Because, organization is conscious enough to monitor employees performance, the performers are highly rewarded, therefore internal marketing ensure quality because the employees who delivers quality service are retained by the organizations. Thus quality and internal marketing has direct relation.

3.2. Quality of Internal Customers

Quality of service is the main concern for most of the management education service proving organizations. According to **Philip et al[218] (1997) "Quality is conformance to requirements".** In the same direction **Parasuraman and Berry[219] (1991)** defines **"Quality is exceeding what customers expect from the service".** In addition to these, **Garvin[220] (1984)** defines, **"Quality can be defined from different prospective- user based, product based, manufacturing based, value based and transcendent view".** Service organizations therefore evaluate certain components of a service to determine its quality. According to **Gronroos[221] (2001**) any service has two important components- functional and technical. The functional component involves interaction between the customers and the service personnel.

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[217] Hassan Ghorbani and Maedeh Mostafavi, (2013),"The Impact of Direct and Indirect of internal marketing on service quality and mediating role of OCB CASE: Iran Insurance Company", International Journal of Academic Research in Business and Social Sciences, Vol. 3, Issue No. 11, Pp 116 - 127.

[218] Philip, G. and Hazlett, S.A. (1997), "The measurement of service quality: a new P-C-P attributes model", International Journal of Quality & Reliability Management, Vol. 14, Issue No. 3, Pp. 60-86.

[219] Parasuraman and Berry, L.L,(1991), " Marketing Services: Competing through Quality (New York: The Free Press.)

[220] Garvin, David A, (1984), "What Does "Product Quality" Real Mean", Sloan Management Review, Harvard University, Pp 25-43.

[221] Grönroos, C. (2001), "The Perceived Service Quality Concept – A Mistake?", Managing Service Quality, Vol. 11, Issue No 3, Pp.150–152.

The technical component refers to the output of the service operation. According to **Parasuraman and Berry** [222] (**1991**) service quality is determined by customers using various criteria like credibility, security access, communication, tangibility, responsiveness, competence, reliability, etc. Thus the quality indeed will have to be measured for business success. **Hassan et al** [223] (**2013**) emphases on internal marketing for quality service in their research. Even **Cronin et al** [224] (**1992**) measure the service quality in terms of service output in their research. Thus, Quality of Service must be one of the components of internal marketing.

3.3. Quality of Service

Quality of service is defined as a form of attitude, related but not equivalent to satisfaction, which results from the comparison of expectation with performance **Bolton & Drew** [225], (**1991**). **Parasuraman et al** [226] (**1993**) add that service quality is an important element in internal marketing because high quality will make it easier for employees to identify themselves with the service they are selling to the customers. An organization can compete on eight different quality functions: 1. Performance, 2. Features, 3. Reliability, 4. Conformance, 5. Durability, 6. Serviceability, 7. Aesthetics and 8. Perceive quality.

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[222] Parasuraman and Berry, L.L,(1991), " Marketing Services: Competing through Quality (New York: The Free Press.)

[223] Hassan Ghorbani and Maedeh Mostafavi, (2013),"The Impact of Direct and Indirect of internal marketing on service quality and mediating role of OCB CASE: Iran Insurance Company", International Journal of Academic Research in Business and Social Sciences, Vol. 3, Issue No. 11, Pp 116 - 127.

[224] Cronin, J.J. and Taylor, S.A. (1994), "SERVPERF versus SERVQUAL: reconcilingperformance-based and perception-minus-expectations measurement of service quality",Journal of Marketing, Vol. 58, Issue No. 1, Pp. 125-31.

[225] Bolton, Ruth N. and James H. Drew (1991), "A Multistage Model of Customers'Assessments of Service Quality and Value," Joumal of Consumer Research, Vol 17, Issue No 1, Pp. 375-84.

[226] Parasuraman, A., Leonard L. Berry, and Valarie A. Zeithaml (1993), "More on Improving Service Quality Measurement," Journal of Retailing, Vol.69, Issue No 9, Pp.140-47.

3.3.1. Performance

Performance indicates the ability of a producer's primary service characteristics. Consumers can judge the quality of the service based on its performance, after comparing it with the competitors' service or the prevailing market standard.

3.3.2. Features

The number of features a product or service has in addition to the basic features also influences customer's perception of quality. Besides, feature allows companies to satisfy different requirement based on individual's performance and choices. As a result, customer's perception of quality is also dependent on the number of service model and or variations available additional features also help in enhancing the appeal of the service.

3.3.3. Reliability

As a technical term, reliability refers to the probability of a product's or service failure within a specified time period. Reliability is usually measured as the mean time between the failures of usage. Reliability is very important in case of high value service.

3.3.4. Conformance

Service conformance reflects how well the service and its individual components meet the established standard. Service conformance to specifications can be identified by analyzing their defect rates during production and delivery and the number of customer's complaints after sale of service.

3.3.5. Durability

Durability of service indicates the use of service in life, how it is helping customer for the survival. Since services cannot be replaced. It should convert the consumer better personals.

3.3.6. Serviceability

It is concerned with the speed of service delivery and converting the product or services in working mode.

3.3.7. Aesthetics

The value of service influence individual performance. Organization uses these quality dimensions to cater to a niche market.

3.3.8. Perceived quality:

Perceived quality is directly related to the reputation of the organization in delivering the service. Customer relay on the reputation of the organization and the past performance of its serve when attaching a value to its new products.

The fact is, quality of service might be more crucial to employees than external customers because unlike external customers, they do not have a choice in selecting their product (the service to be performed by them). The study utilizes a scale developed by **Cronin & Taylor[227] (1992).**

3.4. Improvement in the Quality of Internal Customer and Improvement in the Performance of External Customer

Study on the relationship between the improvement in the quality of internal customer and the performance of external customers is necessary since the internal customers put efforts not only to develop themselves but also to develop external customers.. When the internal customers learn new knowledge through training it will be shared with the external customers. The new knowledge enable the external customer perform well in their studies.

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[227] Cronin, J. Joseph, Jr. and Steven A. Taylor (1992), "Measuring Service Quality: A Reexamination and Extension," Journal of Marketing,   Vol. 56, Issue No.6, Pp.55-68.

According to **Mattson**[228] **(1994),** in their studies found that improvement in service quality of internal customer reflected in the performances of the customers in service industries. **McLeay et al**[229] **(2012),** states that employee engagement in training and development has an effect on the performance of the customers in service industries. In the same line, **Hartline and Ferrell**[230] **(1996),** states that the management of customer-contact service employees enhances their efficiency for the betterment of the customers. In the same way, **Gilaninia et al**[231] **(2013)**, the Effect of Internal Marketing on Employees' Customer Orientation and provided what the customers wants.

3.5. Objective

[2] To ascertain relationship between **'The improvement of quality of Internal Customers'** in one hand and '**improvement on the quality external customers, "Relationship with external customers'** and **'Improvement in the performance of the external customers'** on the other hand.

3.6. Hypothesis

 [2] There is no significant association between **'The improvement of quality of Internal Customers**' in one hand and '**improvement on the quality of external customers**, **relationship with external customers** and **improvement in the performance of the external customers**' on the other hand

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[228] Mattson, J. (1994), "Improving service quality in person-to-person encounters", The Service Industries Journal, Vol. 14, Issue No.1, Pp. 1-10.

[229] McLeay, Fraser and Yoganathan, Vignesh (2012), "Internal Marketing and Employee Engagement: A Typology", Newcastle Business School, UK

[230] Hartline, M. D., O. C. Ferrell (1996), "The management of customer-contact service employees: An empirical investigation.", Journal of Marketing , Vol 60, Issue No 4, Pp 52-70.

[231] Gilaninia ,Shahram, Shafiei, Bijan and Shadab, Rashid (2013) "The Effect of Internal Marketing on Employees' Customer Orientation in Social Security Organization of Gilan". International Journal of Innovative Research in Science, Engineering and Technology, Vol: 2, Issue No: 10, Pp 5848 - 5854.

3.7. Latent Variable considered for Chapter 3 and Their Purpose

[a] 'Improvement of quality of Internal Customers' - this variable has been considered **to** measure the degree of Degree or intensity of **improvement of quality of Internal Customers** as perceived by internal customers in the 'Management Education Service Providing Organizations'.

[b] 'Improvement on the quality external customers' - - this variable has been considered **to** measure the degree of Degree or intensity of **improvement of quality of External Customers** as perceived by external customers themselves in the 'Management Education Service Providing Organizations'.

[c] 'Relationship with external customers' - this variable has been considered **to** measure the degree of Degree or intensity of **Relationship between external customers** and the internal customers as perceived by the External customers of the 'Management Education Service Providing Organizations'.

[d] Improvement in the performance of the external customers' - - this variable has been considered **to** measure the degree of Degree or intensity of **improvement in the performance of the external customers** as perceived by external customers themselves in the 'Management Education Service Providing Organizations'.

3.8. Scale Development in Chapter 3

[i] Latent variable 1= improvement of quality of Internal Customers'

[a] Item selection for scales

In order to test the above mentioned hypothesis the below mentioned variables were indentified with the help of literature review and interviews conducted with internal customers and external customers of Management Education Services Providing Organization.

Table: 3.1
Items to Measure the Degree of improvement on the Quality of Internal Customers
After joining my present work place

Sl.No	Statement
4.1	I have presented more research papers in the national seminars/conference.
4.2	I have presented more research papers in the International seminars/conference
4.3	I have published research papers in the ISBN national journals
4.4	I have published research papers in the ISSN international journals
4.5	I have published research papers in the ISBN international journals with impact factor
4.6	I have published research papers in the ISSN international journals with impact factor
4.7	I have guided more master scholars.
4.8	I have guided more M.Phil scholars.
4.9	I have guided more Ph.D scholars.
4.10	I have received award of apperception from the institute.
4.11	I have obtained Ph.D.
4.12	I have received sufficient training to teach.
4.13	I have attended FDP/Refresher courses/Workshop.

Source: Questionnaire

[b] Reliability of Scales

[i] Overall including all institutions

Table: 3.2
Overall Reliability Statistics of Degree of improvement on the Quality of Internal Customers

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.891	.892	13

Source: based on Survey data

Table: 3.3
Summary Item Statistics of Degree of improvement on the Quality of Internal Customers

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	No of Items
Item Means	.393	.160	.600	.440	3.750	.017	13

Item Variances	.225	.136	.251	.115	1.848	.001	13

Source: based on Survey data

[ii] Institute wise reliability of scale

Table: 3.4			
Institute wise Reliability Statistics of Degree of improvement on the Quality of Internal Customers			
Name of the Institutions	**Cronbach's Alpha[a]**	**Cronbach's Alpha Based on Standardized Items**	**No of Items**
AIM	.812	.809	13
AU	.477	.480	13
DBIM	.800	.807	13
DU	.659	.618	13
GIMT	.812	.794	13
GU	.753	.761	13
KU	.955	.958	13
NERIM	.845	.844	13
RSM	.785	.786	13
TU	.812	.809	13
a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codlings.			

Source: based on Survey data

From the above Table 3.2and 3.4, it is observed that scale considered for the study is reliable since calculated Cronbach's Alpha values are more than 0.50.

[c] Interpretation of the Scale Developed

The more is the scale value; more is the degree of improvement of the quality of Internal Customers' in Management Education Service Providing Organizations and vice versa.

[d] Descriptive Statistics of the scale

[i] Overall mean score of degree of improvement of the quality of Internal Customers' after joining in Management Education Service Providing Organizations.

Table: 3.5 Overall Scale Statistics of Degree of Improvement of the Quality of Internal Customers' after joining in Management Education Service Providing Organizations			
Mean score	Variance	Std. Deviation	No of Items
5.11	16.503	4.062	13

Source: based on Survey data

From the above it is observed that the mean score of Degree of Improvement of the Quality of Internal Customers' after joining in Management Education Service Providing Organizations is 5.11.

 [ii] Institute wise mean score of degree of improvement of the quality of Internal Customers' after joining in Management Education Service Providing Organizations.

Table: 3.6 Institute wise Scale Statistics of Degree of Improvement of the Quality of Internal Customers' after joining in Management Education Service Providing Organizations				
Name of the Institutions	**Mean**	**Variance**	**Std. Deviation**	**No of Items**
AIM	6.30	9.344	3.057	13
AU	1.56	2.028	1.424	13
DBIM	3.36	8.855	2.976	13
DU	3.44	6.028	2.455	13
GIMT	6.40	13.300	3.647	13
GU	4.25	8.932	2.989	13
KU	3.83	22.618	4.756	13
NERIM	5.91	12.891	3.590	13
RSM	6.90	10.767	3.281	13
TU	6.30	9.344	3.057	13

Source: based on Survey data

Here, highest mean score 6.90 in respect of Royal School of Management and least score is 1..56 in respect of Assam University; thus, there exists variation in respect of the degree of Improvement of the Quality of Internal Customers' after joining in Management Education Service Providing Organizations

[e] Normality of the scale

[i] Over all data

Table: 3.7 Over all One-Sample Kolmogorov-Smirnov Test for the Degree of Improvement of the Quality of Internal Customers as perceived by the Internal customers		
N		**100**
Normal Parameters[a,b]	**Mean**	**4.5900**
	Std. Deviation	**3.60722**
Most Extreme Differences	**Absolute**	**.145**
	Positive	**.145**
	Negative	**-.102**
Kolmogorov-Smirnov Z		**1.450**
Asymp. Sig. (2-tailed)		**.030**
a. Test distribution is Normal.		
b. Calculated from data.		

Source: based on Survey data

[ii] Institute wise

Table: 3.8 One-Sample Kolmogorov-Smirnov Test for the Degree of Improvement of the Quality of Internal Customers as perceived by the Internal customers			
Name of the institution			
AIM	N		**10**
	Normal Parameters[a,b]	Mean	**6.8000**
		Std. Deviation	**2.78089**
	Most Extreme Differences	Absolute	**.267**
		Positive	**.125**
		Negative	**-.267**
	Kolmogorov-Smirnov Z		**.844**
	Asymp. Sig. (2-tailed)		**.474**

AU	N		**5**
	Normal Parameters[a,b]	Mean	**11.0000**
		Std. Deviation	**.00000[c]**
DBIM	N		**9**
	Normal Parameters[a,b]	Mean	**1.3333**
		Std. Deviation	**1.50000**
	Most Extreme Differences	Absolute	**.257**
		Positive	**.257**
		Negative	**-.187**
	Kolmogorov-Smirnov Z		**.772**
	Asymp. Sig. (2-tailed)		**.590**
DU	N		**11**
	Normal Parameters[a,b]	Mean	**3.0000**
		Std. Deviation	**2.93258**
	Most Extreme Differences	Absolute	**.207**
		Positive	**.207**
		Negative	**-.153**
	Kolmogorov-Smirnov Z		**.686**
	Asymp. Sig. (2-tailed)		**.734**
GIMT	N		**9**
	Normal Parameters[a,b]	Mean	**3.2222**
		Std. Deviation	**2.33333**
	Most Extreme Differences	Absolute	**.205**
		Positive	**.205**
		Negative	**-.110**
	Kolmogorov-Smirnov Z		**.614**
	Asymp. Sig. (2-tailed)		**.845**
GU	N		**5**
	Normal Parameters[a,b]	Mean	**6.8000**
		Std. Deviation	**3.56371**
	Most Extreme Differences	Absolute	**.331**
		Positive	**.185**
		Negative	**-.331**
	Kolmogorov-Smirnov Z		**.741**
	Asymp. Sig. (2-tailed)		**.642**
KU	N		**12**
	Normal Parameters[a,b]	Mean	**3.8333**
		Std. Deviation	**3.01008**
	Most Extreme Differences	Absolute	**.182**
		Positive	**.182**
		Negative	**-.101**
	Kolmogorov-Smirnov Z		**.632**
	Asymp. Sig. (2-tailed)		**.819**
NERIM	N		**18**
	Normal Parameters[a,b]	Mean	**3.4444**
		Std. Deviation	**4.09048**

		Absolute	.265
	Most Extreme Differences	Positive	.265
		Negative	-.200
	Kolmogorov-Smirnov Z		1.126
	Asymp. Sig. (2-tailed)		.158
RSM	N		**11**
	Normal Parameters[a,b]	Mean	5.2727
		Std. Deviation	3.00303
	Most Extreme Differences	Absolute	.141
		Positive	.119
		Negative	-.141
	Kolmogorov-Smirnov Z		.468
	Asymp. Sig. (2-tailed)		.981
TU	N		**10**
	Normal Parameters[a,b]	Mean	6.2000
		Std. Deviation	2.69979
	Most Extreme Differences	Absolute	.217
		Positive	.152
		Negative	-.217
	Kolmogorov-Smirnov Z		.685
	Asymp. Sig. (2-tailed)		.737
a. Test distribution is Normal.			
b. Calculated from data.			
c. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.			

Source: based on Survey data

Since the Asymp. Sig. (2-tailed) values computed above are more than 0.05, it is concluded that data in the population follow normal distribution. This is true for over all data as well as institute wise data.

[i] Latent variable 2= 'improvement on the quality external customers'

[a] Item selection for scales

In order to test the above mentioned hypothesis the below mentioned variables were indentified with the help of literature review and interviews conducted with internal customers and external customers of Management Education Services Providing Organization.

Table: 3.9

Items to Measure the improvement on the Quality of External Customers as perceived by the External customers after enrolling in the institution

S.No	Statement
5.1	I have developed the skill of acquiring more knowledge in my area of studies from my Internal customers.
5.2	I have become more hard working.
5.3	My academic performance has improved.
5.4	My subject presentation skill has improved.
5.5	I have achieved many set goals.
5.6	I have acquired better skills to express my views and opinions.
5.7	I have updated information from my Internal customers.
5.8	I find participation in group discussion comfortable.
5.9	My participation in class activities has improved.
5.10	I participate in seminars.
5.11	I participate in workshops.
5.12	I have acquired employment skills by participating management training programs.

Source: Questionnaire

[b] Reliability of Scales

[i] Overall reliability of scale

Table: 3.10

Overall Reliability Statistics of Quality of External Customers as perceived by the External customers after enrolling in the institution

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.694	.712	12

Source: based on Survey data

Table: 3.11

Summary Item Statistics of Quality of External Customers as perceived by the External customers after enrolling in the institution

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	No of Items
Item Means	.821	.679	.954	.274	1.404	.007	12
Item Variances	.173	.044	.380	.336	8.573	.008	12

Source: based on Survey data

[ii] Institute wise reliability of scale

Table: 3.12 Institute wise Reliability Statistics of Quality of External Customers as perceived by the External customers after enrolling in the institution			
Name of the Institution	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
AIM	.820	.832	12
AU	.766	.785	12
DBIM	.651	.774	12
DU	.784	.793	12
GIMT	.580	.618	12
GU	.679	.665	12
KU	.840	.832	12
NERIM	.599	.594	12
RGI	.762	.741	12
TU	.481	.699	12

Source: based on Survey data

From the above Table No 3.10 and 3.12 it is observed that scale considered for the study is reliable since calculated Cronbach's Alpha value are more than 0.50.

[c] Interpretation of the Scale Developed

The more is the scale value; more is the degree of Quality of External Customers as perceived by the External customers of Management Education Services Providing Organizations.

[d] Descriptive Statistics of the scale

[i] Overall mean score of degree of Quality of External Customers as perceived by the External customers of Management Education Services Providing Organizations.

Table: 3.13			
Overall Scale Statistics of Degree of Quality of External Customers as perceived by the External customers after enrolling in the institution			
Mean score	**Variance**	**Std. Deviation**	**No of Items**
9.85	5.716	2.391	12

Source: based on Survey data

[ii] Institute wise mean score of degree of Quality of External Customers as perceived by the External customers of management education services providing organizations

Table: 3.14			
Institute wise Scale Statistics of Degree of Quality of External Customers as perceived by the External customers after enrolling in the institution			
Name of the Institutions	**Mean**	**Variance**	**Std. Deviation**	**No of Items**
AIM	10.30	5.830	2.415	12
AU	10.92	3.231	1.797	12
DBIM	9.72	8.787	2.964	12
DU	10.26	4.849	2.202	12
GIMT	8.88	2.985	1.728	11
GU	9.68	4.994	2.235	12
KU	9.41	5.447	2.334	11
NERIM	8.65	4.671	2.161	12
RSM	9.39	5.966	2.443	12
TU	10.08	7.558	2.749	12

Source: based on Survey data

Here, highest mean score 10.92 in respect of Assam University and least score is 8.88 in respect of GIMT; thus, there exists variation in respect of the degree of Quality of External Customers as perceived by the External customers of Management Education Services Providing Organizations

[iii] **Latent variable 3** = **'Relationship with external customers'**

[a] Item selection for scales

In order to test the above mentioned hypothesis the below mentioned variables are indentified with the help of literature review and interview conducted with internal customers and external customers of management education service providing organizations.

Table: 3.15
Items to measure Degree of Relationship of the Internal Customers with the External customers as perceived by External customers

S.No.	Statement
6.1	Internal customers assist me in my studies.
6.2	Internal customers provide me all the necessary materials.
6.3	Internal customers help me to take part in the seminars
6.4	Internal customers help me to take part in the workshop.
6.5	Internal customers help me to do my management thesis systematically
6.6	Internal customers help me to do my summer project systematically
6.7	Internal customers help me to complete my assignment.
6.8	Internal customers help me to get reference books.
6.9	Internal customers help me to take part in competition.
6.10	Internal customers help me to take part in the co-curricular activities.
6.11	Internal customers help me to develop my resume.
6.12	Internal customers train me for campus recruitment.
6.13	Internal customers speak on behalf of External customers to the management.
6.14	Internal customers care the External customers.
6.15	Internal customers have coordinal relationship with every External customer.

Source: Questionnaire

[b] Reliability of Scales

[i] Overall reliability of statistics including all institutions

Table: 3.16
Overall Reliability Statistics of Degree of Relationship of the Internal Customers with the External customers as perceived by External customers

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.861	.882	15

Source: based on Survey data

Table: 3.17
Summary Item Statistics of Degree of Relationship of the Internal Customers with the External customers as perceived by External customers

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	No of Items
Item Means	3.710	3.046	3.966	.920	1.302	.072	15

Source: based on Survey data

[ii] Institute wise reliability of Scale

Table: 3.18
Institute wise Reliability Statistics of Degree of Relationship of the Internal Customers with the External customers as perceived by External customers

Name of the Institution	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
AIM	.912	.913	15
AU	.961	.962	15
DBIM	.877	.877	15
DU	.892	.897	15
GIMT	.843	.851	15
GU	.839	.856	15
KU	.887	.890	15
NERIM	.809	.813	15
RGI	.915	.916	15
TU	.945	.944	15

Source: based on Survey data

From the above Table No 3.18 it is observed that scale considered for the study is reliable since calculated Cronbach's Alpha are more than 0.70.

[c] Interpretation of the Scale Developed

The more is the scale value; more is the degree of relationship of the Internal Customers with the External Customers as perceived by External Customers of management education service providing organizations and vice versa.

[d] Descriptive Statistics of the scale

[i] Overall mean score of degree of relationship of the Internal Customers with the External Customers as perceived by External customers of management education service providing organizations

Table: 3.19 Overall Scale Statistics of Degree of Relationship of Internal Customers with the External customers as perceived by External customers of Management Education Service Providing Organizations			
Mean score	Variance	Std. Deviation	No of Items
55.64	78.760	8.875	15

Source: based on Survey data

[ii] Institute wise mean score of degree of relationship of the Internal Customers with the External customers as perceived by External customers of management education service providing organizations

Table: 3.20 Institute wise Scale Statistics of Degree of Relationship of Internal Customers with the External customers as perceived by External customers of Management Education Service Providing Organizations				
Name of the Institutions	**Mean**	**Variance**	**Std. Deviation**	**No of Items**
AIM	59.46	62.399	7.899	15
AU	49.10	179.733	13.406	15
DBIM	49.60	39.528	6.287	15
DU	49.44	48.904	6.993	15
GIMT	57.84	62.299	7.893	15
GU	52.87	72.532	8.517	15
KU	58.33	54.849	7.406	15

NERIM	56.75	50.340	7.095	15
RSM	57.80	66.889	8.179	15
TU	58.18	96.309	9.814	15

Source: based on Survey data

Here, highest mean score 59.46 in respect of Assam Institute of Management and least score is 49.10 in respect of Assam University; thus, there exists variation in respect of the degree of Relationship of Internal Customers with the External customers as perceived by External customers of Management Education Service Providing Organizations

[iii] **Latent variable 4** = '**Improvement in the performance of the external customers'**

[a] Item selection for scales

In order to test the above mentioned hypothesis the below mentioned variables are indentified with the help of literature review and interview conducted with internal customers and external customers.

Table 3.21
Items to Measure the Performance of the External Customers as perceived by the External customers

S.No.	Statement
7.1	My academic performance has improved because of Internal customers.
7.2	I have scored better grade in group discussion
7.3	I have scored better grade in management thesis.
7.4	I have scored better grade in Summer Project.
7.5	I could win prizes in inter college competition
7.6	I have won prizes in the co-curricular activities.
7.7	I developed the skill of inquisitiveness.
7.8	I have obtained the ability to express my views and opinions.
7.9	I update information from my Internal customers.
7.10	I can communicate the information clearly.
7.11	I have developed better writing skill.

7.12	I am fluent in computer skill'
7.13	I use library more often.
7.14	I can adjust with my stress.
7.15	I have better learning environment.
7.16	I feel assured that my objectives shall be fulfilled.

Source: Questionnaire

[b] Reliability of Scales

[i] Overall reliability of statistics including all institutions

Table 3.22		
Overall Reliability Statistics of Performance of the External Customers as perceived by the External customers		
Cronbach's Alpha	**Cronbach's Alpha Based on Standardized Items**	**No of Items**
.859	.863	16

Source: based on Survey data

Table 3.23							
Summary Item Statistics of Performance of the External Customers as perceived by the External customers							
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	No of Items
Item Means	3.650	3.298	3.928	.630	1.191	.049	16

Source: based on Survey data

[ii] Institute wise reliability of scale

Table 3.24			
Institute wise Reliability Statistics of Performance of the External Customers as perceived by the External customers			
Name of the Institution	**Cronbach's Alpha**	**Cronbach's Alpha Based on Standardized Items**	**No of Items**
AIM	.862	.864	16
AU	.947	.946	16
DBIM	.826	.821	16
DU	.800	.802	16
GIMT	.891	.891	16

GU	.844	.863	16
KU	.830	.827	16
NERIM	.835	.848	16
RGI	.803	.815	16
TU	.861	.844	16

Source: based on Survey data

From the above Table No 3.24 it is observed that scale considered for the study is reliable since calculated Cronbach's Alpha values are more than 0.70.

[c] Interpretation of the Scale Developed

The more is the scale value; more is the degree of Performance of the External Customers as perceived by the External customers of management education providing organizations.

[d] Descriptive Statistics of the scale

[i] Overall mean score of the degree of Performance of the External Customers as perceived by the External customers of management education providing organizations.

Table 3.25
Overall Scale Statistics of Degree of Performance of the External Customers as perceived by the External customers of MESPO

Mean score	Variance	Std. Deviation	No of Items
58.3924	61.372	7.83403	16

Source: based on Survey data

From the above it is observed that the mean score of degree of Performance of the External Customers as perceived by the External customers of MESPO is 58.39.

[ii] Institute wise mean score of degree of relationship of the Internal customers with the External customers as perceived by External customers of management education service providing organizations

Table 3.26				
Institute wise Scale Statistics of Degree of Performance of the External Customers as perceived by the External customers of MESPO				
Name of the Institutions	**Mean**	**Variance**	**Std. Deviation**	**No of Items**
AIM	61.4182	52.655	7.25639	16
AU	60.0750	171.302	13.08824	16
DBIM	57.6250	47.779	6.91222	16
DU	58.9592	44.290	6.65507	16
GIMT	58.1053	70.097	8.37238	16
GU	58.1111	51.100	7.14845	16
KU	57.2889	46.756	6.83780	16
NERIM	56.4000	56.678	7.52850	16
RSM	58.5439	37.038	6.08590	16
TU	57.8974	55.516	7.45087	16

Source: based on Survey data

Here, highest mean score 61.41 in respect of Assam Institute of Management and least score is 57.28 in respect of Kaziranga University; thus, there exists variation in respect of the degree of of Performance of the External Customers as perceived by the External customers of MESPO Test of Normality of data

[i] Overall data

Table No.3.27				
Over all One-Sample Kolmogorov-Smirnov Test for Degree of Quality, Relationship and Performance of External Customers				
		Degree of Quality of External Customers as perceived by the External customers	**Degree of Relationship with External Customers as perceived by External customers**	**Degree of Performance of the External Customers as perceived by the External customers**
N		510	510	510
Normal	**Mean**	77.5902	56.7843	59.0588

Parameters[a,b]	Std. Deviation	7.51911	8.65541	8.18718
Most Extreme Differences	Absolute	.088	.075	.058
	Positive	.049	.075	.052
	Negative	-.088	-.056	-.058
Kolmogorov-Smirnov Z		1.996	1.688	1.308
Asymp. Sig. (2-tailed)		.001	.007	.065
a. Test distribution is Normal.				
b. Calculated from data.				

Source: based on Survey data

[ii] Institute wise data

Table No.3.28					
Institute wise One-Sample Kolmogorov-Smirnov Test Degree of Quality, Relationship and Performance of External Customers					
Name of the institution			Degree of Quality of External Customers as perceived by the External customers	Degree of Relationship with External Customers as perceived by External customers	Degree of Performance of the External Customers as perceived by the External customers
AIM	N		56	56	56
	Normal Parameters[a,b]	Mean	74.5357	57.6250	57.6964
		Std. Deviation	7.91538	7.04160	7.33837
	Most Extreme Differences	Absolute	.089	.101	.074
		Positive	.056	.101	.074
		Negative	-.089	-.087	-.058
	Kolmogorov-Smirnov Z		.663	.757	.555
	Asymp. Sig. (2-tailed)		.771	.615	.917
AU	N		40	40	40
	Normal Parameters[a,b]	Mean	80.0500	55.9500	59.3000
		Std. Deviation	6.78970	8.27399	6.71470
	Most Extreme Differences	Absolute	.113	.119	.102
		Positive	.075	.096	.102
		Negative	-.113	-.119	-.083
	Kolmogorov-Smirnov Z		.715	.751	.644

	Asymp. Sig. (2-tailed)		.686	.625	.802
DBIM	N		40	40	40
	Normal Parameters[a,b]	Mean	73.6250	54.8250	56.5500
		Std. Deviation	8.15770	8.61986	6.50030
	Most Extreme Differences	Absolute	.104	.154	.117
		Positive	.080	.114	.103
		Negative	-.104	-.154	-.117
	Kolmogorov-Smirnov Z		.659	.972	.743
	Asymp. Sig. (2-tailed)		.779	.302	.639
DU	N		50	50	50
	Normal Parameters[a,b]	Mean	75.3000	56.0800	59.2800
		Std. Deviation	6.35112	6.88340	7.09999
	Most Extreme Differences	Absolute	.121	.089	.084
		Positive	.121	.085	.064
		Negative	-.065	-.089	-.084
	Kolmogorov-Smirnov Z		.856	.626	.596
	Asymp. Sig. (2-tailed)		.456	.828	.870
GIMT	N		38	38	38
	Normal Parameters[a,b]	Mean	77.2895	57.3684	59.9474
		Std. Deviation	6.93564	8.60679	7.58358
	Most Extreme Differences	Absolute	.115	.073	.104
		Positive	.064	.073	.104
		Negative	-.115	-.061	-.095
	Kolmogorov-Smirnov Z		.708	.452	.640
	Asymp. Sig. (2-tailed)		.697	.987	.807
GU	N		63	63	63
	Normal Parameters[a,b]	Mean	77.7619	57.2698	56.9365
		Std. Deviation	8.47903	8.67366	8.70831
	Most Extreme Differences	Absolute	.115	.091	.215
		Positive	.074	.091	.122
		Negative	-.115	-.073	-.215
	Kolmogorov-Smirnov Z		.913	.720	1.709
	Asymp. Sig. (2-tailed)		.375	.677	.006
KU	N		52	52	52
	Normal Parameters[a,b]	Mean	80.4231	58.1346	60.4038
		Std.	5.84219	6.55603	6.32226

		Deviation			
	Most Extreme Differences	Absolute	.090	.069	.134
		Positive	.067	.054	.057
		Negative	-.090	-.069	-.134
	Kolmogorov-Smirnov Z		.648	.496	.964
	Asymp. Sig. (2-tailed)		.795	.967	.310
NERIM	N		70	70	70
	Normal Parameters[a,b]	Mean	77.7429	55.1429	57.8857
		Std. Deviation	7.10110	7.42359	8.54408
	Most Extreme Differences	Absolute	.143	.079	.103
		Positive	.094	.079	.086
		Negative	-.143	-.058	-.103
	Kolmogorov-Smirnov Z		1.197	.659	.858
	Asymp. Sig. (2-tailed)		.114	.778	.453
RGI	N		60	60	60
	Normal Parameters[a,b]	Mean	77.6333	56.0333	60.4667
		Std. Deviation	7.21807	13.35559	11.33985
	Most Extreme Differences	Absolute	.132	.102	.098
		Positive	.072	.078	.098
		Negative	-.132	-.102	-.072
	Kolmogorov-Smirnov Z		1.020	.794	.755
	Asymp. Sig. (2-tailed)		.249	.554	.618
TU	N		40	40	40
	Normal Parameters[a,b]	Mean	82.3000	60.4250	63.8750
		Std. Deviation	6.11094	7.83447	6.78304
	Most Extreme Differences	Absolute	.097	.122	.143
		Positive	.097	.122	.143
		Negative	-.078	-.083	-.086
	Kolmogorov-Smirnov Z		.616	.769	.902
	Asymp. Sig. (2-tailed)		.842	.595	.390
a. Test distribution is Normal.					
b. Calculated from data.					

Source: based on Survey data

Thus above data in respect of [1] **Degree of Quality of Internal Customers** (Internal

customers) as perceived by Internal customers [2] **Degree of Quality of External Customers**

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as perceived by the External customers, [3] **Degree of Relationship with External Customers** (as perceived External customers) and [4] **Degree of Performance of the External Customers** (as perceived by the External customers) do not follow normal distribution.

3.9. Data Set Generation

For the purpose of the statistical test the average scores based on the above mentioned reliable scales in respect of the above parameters of all the Management Education Service Providing Organization were developed and resulted into the following

Table 3.29

Data Generation for Degree of Quality, Relationship and Performance of External Customers

Name of Institute	Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers	Degree of Quality of External Customers as perceived by the External customers	Degree of Relationship with External Customers as perceived External customers	Degree of Performance of the External Customers as perceived by the External customers
AIM	6.30	10.30	59.46	61.4182
AU	1.56	10.92	49.10	60.0750
DBIM	3.36	9.72	49.60	57.6250
DU	3.44	10.26	49.44	58.9592
GIMT	6.40	8.88	57.84	58.1053
GU	4.25	9.68	52.87	58.1111
KU	3.83	9.41	58.33	57.2889
NERIM	5.91	8.65	56.75	56.4000
RSM	6.90	9.39	57.80	58.5439
TU	6.30	10.08	58.18	57.8974

Source: based on Survey data

3.10. Hypothesis Testing in Chapter 3

A. Improvement in the quality of internal and external customers

Corollary hypotheses are:

H$_{2a}$: The improvements of quality of Internal Customers' do not bring any **improvement on the quality of external customers.**

[a] Application of the Parametric / Non Parametric Test for

Table 3.30			
Pearson Correlations between Quality of Internal Customers and Quality of External Customers			
		Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers	**Degree of Quality of External Customers as perceived by the External customers**
Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers	Pearson Correlation	1	-.557
	Sig. (2-tailed)		.094
	N	10	10
Degree of Quality of External Customers as perceived by the External customers	Pearson Correlation	-.557	1
	Sig. (2-tailed)	.094	
	N	10	10

Source: based on Survey data

Table 3.31		
Spearman's rho Correlations between Quality of Internal Customers and Quality of External Customers		
	Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers	**Degree of Quality of External Customers as perceived by the External customers**

Spearman's rho	Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers	Correlation Coefficient	1.000	-.505
		Sig. (2-tailed)	.	.137
		N	10	10
	Degree of Quality of External Customers as perceived by the External customers	Correlation Coefficient	-.505	1.000
		Sig. (2-tailed)	.137	.
		N	10	10

Source: based on Survey data

From the above Table No 3.31 it is discernable that there exists low and negative relationship between Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers and Degree of Quality of External Customers as perceived by the External customers.

Thus, **the improvements of quality of Internal Customers' do not bring** any **improvement on the quality of external customers or drive for improvement on the quality of external customers is always at the cost of the improvements of quality of Internal Customers'.**

Thus an attempt made by the internal customers in improving their quality by taking part in seminars, workshop, FDP programs, publication of research work, refresher course, and training in software handling etc. do not bring any improvement in the quality of external customers as the knowledge shared with the external customers.

[b] Explanation of the causes of the conclusion based on individual item statistics

Given the objectives, hypothesis and methodology, it is found that there is no significant   relationship exists between the Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers and the Degree of Quality of External

Customers as perceived by the External customers of Management Education Services Providing Organisations

B. Improvement in the Quality of Internal Customer and relationship with the External Customer

Corollary hypotheses

H$_{2b}$: The **improvements in the quality of Internal Customers'** and **the relationship with the external customers' have inverse relationship.**

[a].Application of the Parametric / Non Parametric Test for

Table 3.32			
Pearson Correlations between Degree of Quality of Internal Customers and Degree of Relationship with External			
		Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers	**Degree of Relationship with External Customers as perceived External customers**
Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers	Pearson Correlation	1	.836[**]
	Sig. (2-tailed)		.003
	N	10	10
Degree of Relationship with External Customers (as perceived External customers)	Pearson Correlation	.836[**]	1
	Sig. (2-tailed)	.003	
	N	10	10

Source: based on Survey data

Table 3.33		
Spearman's rho Correlations between Degree of Quality of Internal Customers and Degree of Relationship with External		
	Degree of Quality of Internal Customers (Internal	**Degree of Relationship with External Customers as**

			customers) as perceived by Internal customers	perceived External customers
Spearman's rho	**Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers**	Correlation Coefficient	1.000	.663[*]
		Sig. (2-tailed)	.	.037
		N	10	10
	Degree of Relationship with External Customers (as perceived External customers)	Correlation Coefficient	.663[*]	1.000
		Sig. (2-tailed)	.037	.
		N	10	10
*. Correlation is significant at the 0.05 level (2-tailed).				

Source: based on Survey data

[b] Decision from the Hypothesis Tests applied / conducted

From the above it can be inferred that the relationship between [a] Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers and [b] Degree of Relationship with External Customers (as perceived External customers) is very low. In other words, Quality of Internal Customers (Internal customers) does not lead to better Relationship with External Customers. Thus, the **improvements in the quality of Internal Customers' and the relationship with the external customers' have inverse relationship between them.**

This is indicative of the fact that Interactive marketing dimension in respect of Management Education Service providing organization is in neglected dimension. Thus internal customers continuously should arrange the seminar, workshop, FDP programs, refresher course, training in software handling etc. to External customers and the significance of improving the quality in them associated with profession should be elucidated.

[c] Explanation of the causes of the conclusion based on individual item statistics

Given the objectives, hypothesis and methodology, it is found that there is no significant   relationship exists between the Degree of Quality of Internal Customers

(Internal customers) as perceived by Internal customers and the Degree of Relationship with External Customers as perceived External customers of Management Education Service Providing Organisations.

C. Improvement in the Quality of Internal Customer and Improvement in the Performance of External Customer

. According to **Mattson, J.**[232] **(1994),** in their studies found that improvement in service quality of internal customer reflected in the performances of the customers in service industries. **McLeay, Fraser and Yoganathan, Vignesh**[233] **(2012),** states that employees engagement in training and development has an effect on the performance of the customers in service industries. In the same line, **Hartline, M., Ferrell, O.**[234] **(1996),** states that the management of customer-contact service employees enhances their efficiency for the betterment of the customers. Similarly, **Gilaninia, Shahram Shafiei, Bijan and Shadab**, **Rashid,**[235] **(2013),** mention the Effect of Internal Marketing on Employees' Customer Orientation and in providing what the customers wants. In order to test the above mentioned hypothesis the below mentioned variables are indentified with the help of literature review and interview conducted with internal customers and external customers.

Corollary Hypotheses

H_{2c}: The **improvement in the quality of Internal Customers**' and **'improvement in the performance of the external customers' are negatively associated.**

[232] Mattson, J. (1994), "Improving service quality in person-to-person encounters", The Service Industries Journal, Vol. 14, Issue No.1, Pp. 1-10.

[233] McLeay, Fraser and Yoganathan, Vignesh (2012), "Internal Marketing and Employee Engagement: A Typology", Newcastle Business School, UK

[234] Hartline, M. D., O. C. Ferrell (1996), "The management of customer-contact service employees: An empirical investigation.", Journal of Marketing , Vol 60, Issue No 4, Pp 52-70.

[235] Gilaninia ,Shahram, Shafiei, Bijan and Shadab, Rashid (2013) "The Effect of Internal Marketing on Employees' Customer Orientation in Social Security Organization of Gilan". International Journal of Innovative Research in Science, Engineering and Technology, Vol: 2, Issue No: 10, Pp 5848 - 5854.

[a].Application of the Parametric / Non Parametric Test for

Table 3.34 Pearson Rank Correlation between Degree of Quality of Internal Customers and Degree of Performance of the External Customers			
		Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers	**Degree of Performance of the External Customers as perceived by the External customers**
Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers	Pearson Correlation	1	-.107
	Sig. (2-tailed)		.768
	N	10	10
Degree of Performance of the External Customers (as perceived by the External customers)	Pearson Correlation	-.107	1
	Sig. (2-tailed)	.768	
	N	10	10

Source: based on Survey data

Table 3.35 Spearman's Correlation between Degree of Quality of Internal Customers and Degree of Performance of the External Customers				
			Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers	**Degree of Performance of the External Customers (as perceived by the External customers)**
Spearman's rho	**Degree of Quality of Internal Customers (Internal customers) as perceived by**	Correlation Coefficient	1.000	.006
		Sig. (2-tailed)	.	.987
		N	10	10

	Internal customers			
	Degree of Performance of the External Customers (as perceived by the External customers)	Correlation Coefficient	.006	1.000
		Sig. (2-tailed)	.987	.
		N	10	10

Source: based on Survey data

[b] Decision from the Hypothesis Tests applied / conducted

Thus from the above tests it is discernible that there exists negative relationship between [a] Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers and [b] Degree of Performance of the External Customers (as perceived by the External customers). Thus the **improvement in the quality of Internal Customers**ʾ and **'improvement in the performance of the external customers' are negatively associated.** This situation is once again should be considered as cause of concern.

[c] Explanation of the causes of the conclusion based on individual item statistics

Given the objectives, hypothesis and methodology, it is found that there is no significant relationship exists between the Degree of Quality of Internal Customers (Internal customers) as perceived by Internal customers and the Degree of Performance of the External Customers as perceived by the External customers of management education service providing organisations.

3.11. Conclusion

Given the objective, methodology it is evident that **there is no significant association between 'The improvement of quality of Internal Customers**ʾ in one hand and ʿ**improvement on the quality of external customers**, **relationship with external customers** and **improvement in the performance of the external customers**ʾ on the other hand in the Management Education Services Providing Organizations.