

## USE OF MARKETING MIX CONCEPT AMONG LIS PROFESSIONALS IN CENTRAL UNIVERSITIES IN INDIA: A STUDY

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### ABSTRACT

The traditional marketing mix is the blend of four “Ps” namely, Product, Place, Price, and Promotion to reach the user community. The marketing mix refers to a set of variables that can be used by a library to promote its services and resources to users. 47 central universities in India are taken up for the study. Nearly 460 questionnaires were distributed among the library professionals situated in 6 regions of which 373 (81.09%) were responded. A total of 16 variables for four components such as Product, Place, Price, and Promotion were taken up for the study. The anti-image correlation matrix test has been administrated to identify the adequacy of the samples indicates the sufficiency of the sample. The Cronbach alpha value of the Reliability test indicates that the 16 variables taken up for the study were acceptable. The respondents were given preference for Evaluation, Participation and New Product in the case of Product. Similarly, in the case of Price, the preferences were Free Service, Fee Barrier, and Minimal Cost. In the case of Place, the order of preferences was Distribution Channel, Technological Advancement and Inconvenience. As in the case of Promotion, the orders of preferences were Utility, Orientation and Human Contact.

**KEYWORDS:** Marketing Mix; Central Universities; Sample Adequacy Test; Reliability Test; 4Ps

### INTRODUCTION

Traditional marketing paradigm, embodied in the well-known Marketing Mix framework proposed by Borden (1964)<sup>1</sup> and popularised as the 4Ps (Product, Price, Place, Promotion) by McCarthy (1964)<sup>2</sup>, to provide an adequate platform for marketing management. The assumption that the 4Ps framework is widely used by marketers as the underpinning of their marketing planning. It is based on the high degree of acceptance of the Marketing Mix by marketing practitioners as the universal marketing paradigm. The 4Ps framework has an overwhelming acceptance among marketing practitioners, noticing that ... “Marketing in practice has, to a large extent, been turned into managing this toolbox”..., a point shared by Goldsmith (1999)<sup>3</sup> who argues that the ...”time-honored concept of the 4 Ps - the Marketing Mix” ...is the heart of the contemporary marketing management.

### MARKETING MIX

Kotler defines marketing mix as “... the set up of controllable variables and their levels that a firm uses to influence the target market” (Kotler, 1988)<sup>4</sup>. The traditional marketing mix is the blend of four “Ps” namely, Product, Place, Price, and Promotion to reach the target market. The 4Ps was introduced by Jerome E. McCarthy in 1960 and it is

the foundation for the modern marketing theory but for services marketing three more “Ps” had been added to have 7Ps. They are People, Physical evidence and Process (Jose and Bhat, 2007)<sup>5</sup>. In essence marketing mix are variables that the organization controls to influence its customers in order to achieve its own objective. The marketing mix is very crucial in library and information services marketing in order to achieve the library’s main objective which is to meet information users’ needs and to retain its position as the primary information provider.

## REVIEW OF LITERATURE

For libraries, marketing is about a set of activities including understanding client needs, determining market niches, identifying products and services, building client relationships and creating 'marketing mix' (de Saez, 2002<sup>6</sup>; Potter, 2012<sup>7</sup>; Rowley, 2003<sup>8</sup>; Welch, 2006<sup>9</sup>).

The marketing mix refers to a set of variables that can be used by a library to promote its services and resources to users (de Saez, 2002<sup>6</sup>; Lancaster and Reynolds, 1995<sup>10</sup>; Welch, 2006<sup>9</sup>). The marketing mix is traditionally referred to as the 4 Ps: price, product, promotion, and place; however the fifth P, people, is now commonly included. Although the marketing mix was developed for imparting the advantages of a tangible product, with a focus on product marketing, the literature agrees on the importance of applying this focus to service promotion. As the need for promotion of services has grown and is now more widely recognized, the marketing mix has been refined and adapted to include services, not just products (Mollel, 2013)<sup>11</sup>. One of the key marketing mix strategies is the effective promotion.

A comprehensive literature search has shown increasing interest in the necessity of appropriately promoting library services and resources, as well as the critical need to do this to maintain visibility. The literature agrees that marketing and promotion are often used interchangeably; however, they are quite different, with promotion being a subset of marketing, as outlined above in the marketing mix (Mollel, 2013<sup>11</sup>; Germano, 2010<sup>12</sup>).

## OBJECTIVES

The objectives of the study were

- To identify the concept of marketing mix among Library and Information Science professionals
- To know whether the LIS professionals have a clear vision of the products they have to deal with
- To ascertain whether the LIS professionals realize the amount that has been invested and make them utilize by the users
- To identify whether the LIS professionals make use of the place for promoting the products and services
- To know the promotional attitude of LIS professionals in their product and services.

## SAMPLE

The central universities of India are taken up for the study. Nearly 460 questionnaires were distributed. The number of questionnaires distributed and the responses were shown in Table 1.

**Table 1: Region Wise Response from the Respondents**

S. Nos.	Region	No. of Universities	Distributed	Received	%
1	North India (Northern)	17	229	193	84.28
2	South India (Southern)	8	68	55	80.88
3	East India (Eastern)	6	46	37	80.43
4	West India (Western)	3	15	12	80.00
5	Central India (Central)	3	17	11	64.71
6	Northeast India (North Eastern )	10	85	65	76.47
<b>Total</b>		<b>47</b>	<b>460</b>	<b>373</b>	<b>81.09</b>

It is seen from Table 1 that out of 460 questionnaires distributed among the library professionals in 47 Central Universities situated in 6 regions of which 373 (81.09%) were responded. Further, the demographic details of the respondents were studied based on the university affiliation, designation gender, age, qualification and region wise of the respondents. The details were shown in Table 2.

**Table 2: Demographic Details**

S. No.	Description	Respondents	Percent	Cumulative Percent
<b>Region</b>				
1	Northern	193	51.7	51.7
2	Southern	55	14.7	66.5
3	Eastern	37	9.9	76.4
4	Western	12	3.2	79.6
5	Central	11	2.9	82.6
6	Northeastern	65	17.4	100.0
<b>Designation</b>				
1	Librarian	32	8.6	8.6
2	Deputy Librarian	35	9.4	18.0
3	Asst Librarian	121	32.4	50.4
4	Other Library Professionals	185	49.6	100.0
<b>Gender</b>				
1	Male	261	70.0	70.0
2	Female	112	30.0	100.0
<b>Age</b>				
1	Below 45 yrs	260	69.7	69.7
2	45 and above yrs	113	30.3	100.0
<b>Qualification</b>				
1	PhD	79	21.2	21.2
2	PG	242	64.9	86.1
3	M.Phil	26	7.0	93.0
4	UG	26	7.0	100.0
<b>Total</b>		<b>373</b>	<b>100.0</b>	

It can be seen from Table 2 that among the 373 respondents, 261 belongs to the male community. 49.6% of the respondents are other library professionals such as Professional Assistants, library assistant etc. Out of 373 respondents, 32 were University Librarian (8.6%), 36 Deputy Librarian (9.4%); 121 (32.4%) are Assistant Librarians and 185 (49.6%) other library professionals.

## MARKETING MIX

The concept of marketing mix among select central university library and information science professionals were studied based on four Marketing mix "P" such as Product, Price, Place, and Promotion. The same is shown in Figure 1.



**Figure 1: Marketing Mix**

A total of 16 variables for these four components were taken up for the study. Each component has no. of variables. The components and the no. of variables are shown in Tables 3.

**Table 3: Components, Variables, and Variable Code**

S. No.	Marketing Mix	No. of Variables	Variables	Variable Code
1	Marketing Mix "P"- Product	4	The success of all marketing planning and promotion efforts hinges directly on the quality and excellence of products/ -services which are designed/ delivered.	Quality
			There should be an opportunity for users to participate in the designing process of any new service/product which targeted at them.	Participation
			Libraries must constantly introduce new products and services to remain valuable.	New Product
			The library needs to evaluate its information products / services constantly to determine if they need to continue/modified/withdrawn.	Evaluation
2	Marketing Mix "P" Price	4	The economics of new technology has made it difficult for libraries to offer services free of cost to the users	Free Service
			User charges prevent misuse of library services / products	User Charges
			Fees should never become a barrier to use; everyone deserves equal, unrestricted access to information	Fee Barrier
			Charging the users with only nominal cost will motivate them to use the services/ products repeatedly	Minimal Cost
3	Marketing Mix "P" Place	3	If access to material and services is inconvenient to the users, the usage will be reduced considerable	Inconvenient
			Advances in information technology have raised the user's expectations of information provision in terms of both quality of service and speed of delivery	Technological Advancement
			Information explosion and development of significant new technologies are creating a strong demand for innovation in the channels of distribution	Distribution Channel
4	Marketing Mix "P" Promotion	5	It is necessary to inform the users about the utility and benefits of information products / services of the library, when their usage is missing	Utility
			Conducting user orientation programme is an important activity of a library for the promotion of its products / services	Orientation
			User surveys and personal interviews should be conducted periodically	Surveys
			Newsletters, brochures, webpage advertisement, and library tours help to increase the library usage.	Print Tools
			Both publicity and personal contact will create awareness among the users about the existing information products/services.	Human Contact
<b>Total</b>		<b>16</b>		

## MEASURES OF SAMPLING ADEQUACY (MSA)

The image of a variable is defined as that part which is predictable by regressing each variable on all the other variables; hence, the anti-image is the part of the variable that cannot be predicted. The anti-image correlation matrix A is a matrix of the negatives of the partial correlations among variables. Partial correlations represent the degree to which the factors explain each other in the results. The diagonal of the anti-image correlation matrix is the Kaiser–Meyer–Olkin measure of sampling adequacy for the individual variables. Variables with small values should be eliminated from the analysis. The anti-image covariance matrix C contains the negatives of the partial co-variances and has one minus the squared multiple correlations in the principal diagonal. Most of the off-diagonal elements should be small in both anti-image matrices in a good factor model. Both anti-image matrices can be calculated from the inverse of the correlation matrix R via

$$A = \{\text{diag}(R)\}^{-1}R\{\text{diag}(R)\}^{-1}$$

$$C = \{\text{diag}(R)\}^{-1}2R\{\text{diag}(R)\}^{-1}/2$$

The Anti-image correlation matrices are shown in Table 4, which measures the sampling adequacy for the variables taken for the study.

**Table 4: Anti-image Correlation Matrices for Marketing Mix Components**

Concepts	Factors	Quality	Participation	New Product	Evaluation	
Product	Quality	.744 <sup>a</sup>				
	Participation	-.298	.747 <sup>a</sup>			
	New Product	-.160	-.104	.844 <sup>a</sup>		
	Evaluation	-.391	-.396	-.012		.716 <sup>a</sup>
Concepts	Factors	Free Service	User Charges	Fee Barrier	Minimal Cost	
Price	Free Service	.794 <sup>a</sup>				
	User Charges	-.435	.776 <sup>a</sup>			
	Fee Barrier	-.192	-.213	.784 <sup>a</sup>		
	Minimal Cost	-.016	-.302	-.463		.769 <sup>a</sup>
Concept	Factors	Inconvenient	Technological Advancement	Distribution Channel		
Place	Inconvenient	.556 <sup>a</sup>				
	Technological Advancement	-.097	.845 <sup>a</sup>			
	Distribution Channel	-.703	-.168			.554 <sup>a</sup>
Concept	Factors	Utility	Orientation	Surveys	Print Tools	Human Contact
Promotion	Utility	.610 <sup>a</sup>				
	Orientation	-.814	.615 <sup>a</sup>			
	Surveys	.141	-.296	.731 <sup>a</sup>		
	Print Tools	-.131	-.034	-.202	.716 <sup>a</sup>	
	Human Contact	-.124	-.107	-.189	.193	.815 <sup>a</sup>
a. Measures of Sampling Adequacy(MSA)						

The diagonal value of the variables indicates the adequacy of the sample. All the correlation values are more than 0.5 (Positive correlation) which indicates that the variables are acceptable by the respondents.

## RELIABILITY TEST

Reliability is concerned with the consistency of a variable. There are two identifiable aspects of this issue: external and internal reliability. Nowadays, the most common method of estimating internal reliability is Cronbach alpha ( $\alpha$ ). The formula used for internal reliability is

$$\alpha = \frac{K}{K - 1} \left( 1 - \frac{\sum_{i=1}^K \sigma_{Y_i}^2}{\sigma_X^2} \right)$$

A commonly accepted rules for describing internal consistency using Cronbach alpha (Cronbach, Lee and Shavelson 2004)<sup>13</sup> are  $\alpha \geq 0.9$  (Excellent),  $0.9 > \alpha \geq 0.8$  (Good),  $0.8 > \alpha \geq 0.7$  (Acceptable),  $0.7 > \alpha \geq 0.6$  (Questionable),  $0.6 > \alpha \geq 0.5$  (Poor) and  $0.5 > \alpha$  (Unacceptable).

In order to identify the reliability of the variables, Cronbach alpha ( $\alpha$ ) analysis has been carried out for 16 variables on attitude on marketing among select central university library and information science professionals. The Alpha value for the same is calculated and shown in Table 4, which indicates that all the variables are acceptable for further studies.

**Table 5: Reliability Test – Cronbach Alpha Value**

S.No.	Attitude	No. of Variables	Alpha Value
1	Marketing mix “P”-Product	4	0.7404
2	Marketing mix “p” Price	4	0.8415
3	Marketing mix “P” Place	3	0.7261
4	Marketing mix “P” Promotion	5	0.7228
<b>Total</b>		<b>16</b>	<b>0.7750</b>

All the 16 variables alpha value works out to 0.7750. The alpha value for each four components ranges between 0.7228 and 0.8415. The alpha value is  $>0.7$  which indicates that all the variables are acceptable in nature for the study.

## MARKETING MIX “P”-PRODUCT

The concept of Marketing mix “P”-Product has been analyzed based on four variables such as “Quality”, “Participation”, “New Product” and “Evaluation”. The respondent’s opinion were analyzed and ranked based on the mean and standard deviation value which is shown in Table 6.

**Table 6: Marketing Mix “P”-Product**

S. No.	Description	Strongly Disagree		Disagree		No opinion		Agree		Strongly Agree		Mean	Std	Rank
1	Quality	11	2.9%	94	25.2%	115	30.8%	103	27.6%	50	13.4%	3.23	1.063	4
2	Participation	2	.5%	97	26.0%	73	19.6%	128	34.3%	73	19.6%	3.46	1.093	2
3	New Product	43	11.5%	41	11.0%	129	34.6%	96	25.7%	64	17.2%	3.26	1.205	3
4	Evaluation	6	1.6%	73	19.6%	24	6.4%	85	22.8%	185	49.6%	3.99	1.221	1

It is seen from Table 6 that the respondents opined the factor “Evaluation” is an important component of the Library professionals (3.99) followed by “Participation” (3.46) and “New Product” (3.26). The least preference given is “Quality” which has a mean value of 3.23. The mean value among the variables ranges between 3.23 and 3.99 and the standard deviation ranges between 1.063 and 1.221 which confirms that there is no deviation between the variables.

Further, the Marketing Mix – Product was analyzed against the 47 universities with respect to age, gender, region and the designation of the respondents. The ranking order of the above is shown in table 7 based on the mean and standard deviation value.

Table 7: Marketing Mix “P”-Product Vs Age, Gender, Region &amp; Designation

Description	M/S/R	Quality	Participation	New Product	Evaluation	Findings
<b>AGE</b>						
Below 45 yrs	Mean	3.19	3.43	3.28	3.87	E>P>N>Q
	Std.	1.039	1.118	1.21	1.274	
45 and above yrs	Mean	3.34	3.54	3.2	4.28	E>P>Q>N
	Std.	1.115	1.035	1.196	1.039	
		<b>A&gt;B</b>	<b>A&gt;B</b>	<b>B&gt;A</b>	<b>A&gt;B</b>	
<b>Gender</b>						
Male	Mean	3.21	3.44	3.3	3.96	E>P>N>Q
	Std.	1.071	1.117	1.187	1.23	
Female	Mean	3.28	3.53	3.18	4.06	E>P>Q>N
	Std.	1.05	1.039	1.246	1.203	
		<b>F&gt;M</b>	<b>F&gt;M</b>	<b>M&gt;F</b>	<b>F&gt;M</b>	
<b>Region</b>						
Northern	Mean	3.26	3.55	3.23	4.05	E>P>Q>N
	Std.	1.097	1.084	1.177	1.23	
Southern	Mean	3.13	3.42	3.02	4.11	E>P>Q>N
	Std.	1.037	1.031	1.326	1.165	
Eastern	Mean	3.27	3.24	3.49	3.73	E>N>Q>P
	Std.	0.932	1.188	1.17	1.326	
Western	Mean	3	3.17	3.5	3.5	N>E>P>Q
	Std.	1.128	1.115	1.087	1.446	
Central	Mean	3.64	3.91	3.64	4.64	E>P>N>Q
	Std.	1.027	0.831	0.674	0.674	
North eastern	Mean	3.2	3.34	3.32	3.86	E>P>N>Q
	Std.	1.064	1.136	1.276	1.171	
		<b>C&gt;E&gt;N&gt;NE&gt;S&gt;W</b>	<b>C&gt;N&gt;S&gt;NE&gt;E&gt;W</b>	<b>C&gt;W&gt;E&gt;NE&gt;N&gt;S</b>	<b>C&gt;S&gt;N&gt;NE&gt;E&gt;W</b>	
<b>Designation</b>						
Librarian	Mean	3.03	3.5	3.06	4.03	E>P>N>Q
	Std.	0.999	1.164	1.268	1.231	
Dy. Librarian	Mean	3.26	3.46	3.23	3.94	E>P>Q>N
	Std.	1.01	1.12	1.308	1.282	
Asst. Librarian	Mean	3.26	3.38	3.3	4.02	E>P>N>Q
	Std.	1.076	1.157	1.229	1.176	
Others	Mean	3.25	3.51	3.28	3.98	E>P>Q>N
	Std.	1.08	1.038	1.163	1.247	
		<b>D&gt;A&gt;O&gt;L</b>	<b>O&gt;L&gt;D&gt;A</b>	<b>A&gt;O&gt;D&gt;L</b>	<b>L&gt;A&gt;O&gt;D</b>	
<b>Overall</b>						
<b>Total</b>	<b>Mean</b>	<b>3.23</b>	<b>3.46</b>	<b>3.26</b>	<b>3.99</b>	<b>E&gt;P&gt;N&gt;Q</b>
	<b>Std.</b>	<b>1.063</b>	<b>1.093</b>	<b>1.205</b>	<b>1.221</b>	

It can be seen from Table 7 that all the respondents have given “Evaluation” as the top preference followed by “Participation” and the least preference is given to “New Product”.

The respondents who belong above 45 years of age were of the opinion that “The library needs to evaluate its information products/services constantly to determine if they need to continued/modified/withdrawn” and the same is preferred by the female members of the respondents rather than the male respondents. The male respondents below 45 years prefer “Libraries must constantly introduce new products and services to remain valuable”. It is inferred from the gender and the age of the respondents that the new generation expects that the new products should be introduced so that the services offered by the libraries remain valuable.

Out of 6 regions, the respondents from the Central region is of the opinion that the services offered by the library needs to be evaluated on the information products/services offered to the users and the respondents from the western region were not concerned about the services offered by the universities.

The Librarians in the universities preferred to evaluate the services/information products whereas the Asst. Librarians prefers that the libraries must introduce new products and services. The Deputy librarians preferred the quality of the services whereas the other library professionals prefer that “There should be an opportunity for users to participate in the designing process of any new service/product which targeted at them”.

## MARKETING MIX “P”-PRICE

The price of marketing mix among the library professionals was studied among 47 Central universities based on “Free Service”, “User Charges”, “Fee Barrier” and “Minimal Cost”. Table 8 shows the ranking of the categories based on mean and standard deviation. The opinion of the respondents was based on the five-point scale such as Strongly disagree, Disagree, No opinion, Agree and Strongly Agree.

**Table 8: Marketing Mix “P”- Price**

S.No.	Description	Strongly Disagree		Disagree		No opinion		Agree		Strongly Agree		Mean	Std	Rank
1	Free Service	16	4.3%	44	11.8%	45	12.1%	101	27.1%	167	44.8%	3.96	1.195	1
2	User Charges	30	8.0%	14	3.8%	113	30.3%	171	45.8%	45	12.1%	3.50	1.026	4
3	Fee Barrier	6	1.6%	42	11.3%	89	23.9%	167	44.8%	69	18.5%	3.67	.956	2
4	Minimal Cost	12	3.2%	50	13.4%	125	33.5%	102	27.3%	84	22.5%	3.53	1.079	3

It is seen from Table 8 that “The economics of new technology has made it difficult for libraries to offer services free of cost to the users” ranks first followed by “Fees should never become a barrier to use; everyone deserves equal, unrestricted access to information”. The least preference given by the respondents is “User Charges” ie “User charges prevent misuse of library services / products”. The mean value of the four variables ranges from 3.50 to 3.96. and the standard deviation is between 0.956 and 1.195.

Further, the study had been extended in respect of Age, gender, designation, and region wise. The ranking order for the same is shown in Table 9.

**Table 9: Marketing Mix “P”-Price Vs Age, Gender, Region & Designation**

Description	M/S/R	Free Service	User Charges	Fee Barrier	Minimal Cost	Findings
<b>AGE</b>						
Below 45 yrs	Mean	3.93	3.46	3.66	3.49	FS>FB>M>U
	Std.	1.185	1.033	.935	1.092	
45 and above yrs	Mean	4.04	3.60	3.70	3.60	FS>FB>U>M
	Std.	1.220	1.005	1.008	1.048	
		<b>A&gt;B</b>	<b>A&gt;B</b>	<b>A&gt;B</b>	<b>A&gt;B</b>	
<b>Gender</b>						
Male	Mean	3.92	3.47	3.66	3.47	FS>FB>U>M
	Std.	1.195	1.036	.958	1.079	
Female	Mean	4.06	3.58	3.71	3.66	FS>FB>M>U
	Std.	1.195	1.001	.955	1.070	
		<b>F&gt;M</b>	<b>F&gt;M</b>	<b>M&gt;F</b>	<b>F&gt;M</b>	
<b>Region</b>						
Northern	Mean	4.05	3.60	3.68	3.44	FS>FB>U>M
	Std.	1.156	1.042	.854	.972	
Southern	Mean	3.80	3.40	3.55	3.60	FS>M>FB>U
	Std.	1.393	.974	1.015	1.065	
Eastern	Mean	3.89	3.43	3.78	3.76	FS>M>FB>U
	Std.	1.149	.987	1.084	1.188	
Western	Mean	3.75	3.58	3.92	3.75	FB>M>FS>U
	Std.	1.138	.900	1.165	1.545	
Central	Mean	4.45	3.73	4.00	3.82	FS>FB>M>U



	Std.	1.036	1.191	.775	1.079	
North eastern	Mean	3.85	3.29	3.60	3.51	FS>FB>M>U
	Std.	1.189	1.027	1.101	1.226	
		C>N>E>NE>S>W	C>N>W>E>S>NE	C>W>E>N>NE>S	C>E>W>S>NE>N	
<b>Designation</b>						
Librarian	Mean	3.72	3.25	3.38	3.47	FS>M>FB>U
	Std.	1.301	1.078	1.008	1.107	
Dy. Librarian	Mean	3.80	3.74	3.57	3.51	FS>U>FB>M
	Std.	1.208	.852	.917	.919	
Asst. Librarian	Mean	3.93	3.43	3.64	3.44	FS>FB>M>U
	Std.	1.209	1.132	.982	1.154	
Others	Mean	4.05	3.55	3.76	3.59	FS>FB>M>U
	Std.	1.164	.966	.931	1.054	
		O>A>D>L	D>O>A>L	O>A>D>L	O>D>L>A	
<b>Overall</b>						
Total	Mean	3.96	3.50	3.67	3.53	FS>FB>M>U
	Std.	1.195	1.026	.956	1.079	

Table 9 reveals that almost all the respondents have given “The economics of new technology has made it difficult for libraries to offer services free of cost to the users (Free Service)” as the top preference followed by “Fees should never become a barrier to use; everyone deserves equal, unrestricted access to information (Fee Barrier)” and the least preference is given to “User charges prevent misuse of library services / products (User Charges)”.

Irrespective of the age and the gender of the respondents, the first two preferences were given to “Free Service” and “Fee Barrier” and the maximum respondents were above 45 years of age. However, the respondents who belong above 45 years of age had an identical opinion on first two preferences and opinion gets interchanged between last two preferences.

The central and Northeast region have identical preferences whereas, in the case of the Northern region, last two preferences get interchanged comparing to Central and Northeast region. Similarly, Southern and Eastern region have identical preferences whereas Western region preferences were Fee Barrier, Minimal Cost, Free Service, and User Charges. The universities in Central region has a high preference in all the four factors.

In the case of Designation of the respondents, the Asst. Librarian and Other professionals have synchronised opinion such as Free Service, Fee Barrier, Minimal Cost, and User Charges. In the case of Librarian and Dy. Librarian, the first and third preferences were identical whereas the other two preferences gets interchanged.

In general, other library professionals highly preferred on free service, fee barrier, minimal cost whereas Dy. Librarians prefer User Charges.

## MARKETING MIX “P”-PLACE

The place of marketing mix among the library professionals were studied among 47 Central universities based on “If access to material and services is inconvenient to the users, the usage will be reduced considerable (Inconvenient)”, “Advances in information technology have raised the users expectations of information provision in terms of both quality of service and speed of delivery (Technological Advancement)” and “Information explosion and development of significant new technologies are creating a strong demand for innovation in the channels of distribution (Distribution Channel)”. Table 10 shows the ranking of the categories based on mean and standard deviation. The opinion of the respondents was based on the five-point scale such as Strongly disagree, Disagree, No opinion, Agree and Strongly Agree.

Table 10: Marketing Mix “P”-Place

S.No.	Description	Strongly Disagree		Disagree		No Opinion		Agree		Strongly Agree		Mean	Std	Rank
1	Inconvenient	36	9.7%	64	17.2%	81	21.7%	129	34.6%	63	16.9%	3.34	1.170	3
2	Technological Advancement	20	5.4%	48	12.9%	119	31.9%	125	33.5%	61	16.4%	3.51	1.033	2
3	Distribution Channel	24	6.4%	64	17.2%	65	17.4%	71	19.0%	149	39.9%	3.63	1.339	1

The mean value of all the variables ranges between 3.34 and 3.63 and the standard deviation ranges between 1.033 and 1.33\* which indicates that all the variables were agreed by the respondents and no much deviation on their opinion. The first preference was given to Distribution Channel and the other two order of preferences were Technological Advancement and Inconvenient.

Further, the study has been extended to Age, Gender, Designation, and Region wise of the respondents. The mean, std. deviation and the ranking order is shown in Table 11 along with the findings.

Table 11: Marketing Mix “P”-Place Vs Age, Gender, Region &amp; Designation

Description	M/S/R	Inconvenient	Technological Advancement	Distribution Channel	Findings
<b>AGE</b>					
Below 45 yrs	Mean	3.93	3.46	3.66	I>D>T
	Std.	1.185	1.033	0.935	
45 and above yrs	Mean	4.04	3.6	3.7	I>D>T
	Std.	1.22	1.005	1.008	
		<b>A&gt;B</b>	<b>A&gt;B</b>	<b>A&gt;B</b>	
<b>Gender</b>					
Male	Mean	3.92	3.47	3.66	I>D>T
	Std.	1.195	1.036	0.958	
Female	Mean	4.06	3.58	3.71	I>D>T
	Std.	1.195	1.001	0.955	
		<b>F&gt;M</b>	<b>F&gt;M</b>	<b>F&gt;M</b>	
<b>Region</b>					
Northern	Mean	4.05	3.6	3.68	I>D>T
	Std.	1.156	1.042	0.854	
Southern	Mean	3.8	3.4	3.55	I>D>T
	Std.	1.393	0.974	1.015	
Eastern	Mean	3.89	3.43	3.78	I>D>T
	Std.	1.149	0.987	1.084	
Western	Mean	3.75	3.58	3.92	D>I>T
	Std.	1.138	0.9	1.165	
Central	Mean	4.45	3.73	4	I>D>T
	Std.	1.036	1.191	0.775	
North eastern	Mean	3.85	3.29	3.6	I>D>T
	Std.	1.189	1.027	1.101	
		<b>C&gt;N&gt;E&gt;NE&gt;S&gt;W</b>	<b>C&gt;N&gt;W&gt;E&gt;S&gt;NE</b>	<b>C&gt;W&gt;E&gt;N&gt;NE&gt;S</b>	
<b>Designation</b>					
Librarian	Mean	3.72	3.25	3.37	I>D>T
	Std.	1.301	1.078	1.008	
Dy. Librarian	Mean	3.8	3.74	3.57	I>T>D
	Std.	1.208	0.852	0.917	
Asst. Librarian	Mean	3.93	3.43	3.64	I>D>T
	Std.	1.209	1.132	0.982	
Others	Mean	4.05	3.55	3.76	I>D>T
	Std.	1.164	0.966	0.931	
		<b>O&gt;A&gt;D&gt;L</b>	<b>D&gt;O&gt;A&gt;L</b>	<b>O&gt;A&gt;D&gt;L</b>	
<b>Overall</b>					
Total	Mean	3.34	3.51	3.63	D>T>I
	Std.	1.17	1.033	1.339	

In between the age groups, the opinions were identical and the order was Inconvenient, Technological Advancement and Distribution Channel. Among the age group, Above 45 years have a higher order of preference than below 45 years. Similarly, in the case of gender identical opinion persist as like of age. Among the gender group, female have a higher order of preference than male respondents.

In the case of the region, identical opinion persists among Northern, Southern, Eastern, Central and North eastern have identical opinion whereas in the case of the Western region, first two preferences get interchanged. Among the regions, central region has a higher order of preference than the other regions as stated in Table 11.

It is revealed from Table 11 that identical opinion exists among Librarian, Asst. Librarian and other Library professionals as like of the gender and age whereas in the case of Dy. Librarian, the second and third preferences get interchanged. Among the professionals, Other library professionals have a higher order of preference for Inconvenient and Distribution Channel whereas the Dy. Librarian has a higher order of preference for Technological Advancement.

### MARKETING MIX “P”- PROMOTION

The Promotion of marketing mix among the library professionals were studied among 47 Central universities based on “It is necessary to inform the users about the utility and benefits of information products / services of the library, when their usage is missing (Utility)”, “Conducting user orientation programme is an important activity of a library for the promotion of its products / service (Orientation)”, “User surveys and personal interviews should be conducted periodically (Surveys)”, “Newsletters, brochures, webpage advertisement, and library tours help to increase the library usage (Print Tools)” and “Both publicity and personal contact will create awareness among the users about the existing information products/services (Human Contact)”. Table 12 shows the ranking of the categories based on mean and standard deviation. The opinion of the respondents was based on the five-point scale such as Strongly disagree, Disagree, No opinion, Agree and Strongly Agree.

**Table 12: Marketing Mix “P”- Promotion**

S.No.	Description	Strongly Disagree		Disagree		No opinion		Agree		Strongly Agree		Mean	Std	Rank
1	Utility	12	3.2%	10	2.7%	61	16.4%	72	19.3%	218	58.4%	4.16	1.098	1
2	Orientation	1	.3%	20	5.4%	59	15.8%	111	29.8%	182	48.8%	4.16	.951	2
3	Surveys	2	.5%	67	18.0%	92	24.7%	141	37.8%	71	19.0%	3.66	1.044	4
4	Print Tools	19	5.1%	57	15.3%	87	23.3%	90	24.1%	120	32.2%	3.66	1.180	5
5	Human Contact	3	.8%	51	13.7%	49	13.1%	117	31.4%	153	41.0%	3.93	1.087	3

The mean value of all the variables ranges between 3.66 and 4.16 and the standard deviation ranges between 0.951 and 1.180 which indicates that all the variables were agreed by the respondents and no much deviation on their opinion. The first preference was given to Utility and the other two order of preferences were Orientation, Human Contact, Surveys, and Print Tools.

Further, the study has been extended to Age, Gender, Designation, and Region wise of the respondents. The mean, std. deviation and the ranking order is shown is Table 13 along with the findings.

Table 13: Marketing Mix “P”-Promotion Vs Age, Gender, Region &amp; Designation

Description	M/S	Utility	Orientation	Surveys	Print Tools	Human Contact	Findings
<b>AGE</b>							
Below 45 yrs	Mean	4.33	4.24	3.55	3.60	3.93	U>O>HC>P>S
	Std.	1.024	.913	1.033	1.221	1.127	
45 and above yrs	Mean	4.13	4.15	3.61	3.70	4.10	O>U>HC>P>S
	Std.	1.056	.928	.958	1.224	.954	
		<b>B&gt;A</b>	<b>B&gt;A</b>	<b>A&gt;B</b>	<b>A&gt;B</b>	<b>A&gt;B</b>	
<b>Gender</b>							
Male	Mean	4.27	4.21	3.54	3.62	3.98	U>O>HC>P>S
	Std.	1.018	.934	1.005	1.195	1.106	
Female	Mean	4.27	4.23	3.63	3.65	3.99	U>O>HC>P>S
	Std.	1.082	.880	1.022	1.285	1.018	
		<b>M&gt;F</b>	<b>F&gt;M</b>	<b>F&gt;M</b>	<b>F&gt;M</b>	<b>F&gt;M</b>	
<b>Region</b>							
Northern	Mean	4.14	4.12	3.65	3.72	3.89	U>O>HC>P>S
	Std.	1.097	.964	.994	1.143	1.103	
Southern	Mean	4.29	4.20	3.53	3.38	4.20	U>O>HC>P>S
	Std.	.936	.848	.920	1.381	1.026	
Eastern	Mean	4.59	4.49	3.30	3.35	4.11	U>O>HC>P>S
	Std.	.725	.731	1.051	1.296	1.075	
Western	Mean	4.58	4.33	3.08	3.83	3.50	U>O>P>HC>S
	Std.	.793	.778	1.084	.835	1.087	
Central	Mean	4.27	4.55	3.91	4.18	4.00	O>U>P>HC>S
	Std.	1.104	.688	.944	.982	1.000	
North Eastern	Mean	4.40	4.28	3.54	3.60	4.09	U>O>HC>P>S
	Std.	1.072	.960	1.076	1.321	1.042	
		<b>E&gt;W&gt;&gt;NE&gt;S&gt;C&gt;N</b>	<b>C&gt;E&gt;W&gt;NE&gt;S&gt;N</b>	<b>C&gt;N&gt;NE&gt;S&gt;E&gt;W</b>	<b>C&gt;W&gt;N&gt;NE&gt;S&gt;E</b>	<b>S&gt;E&gt;NE&gt;C&gt;N&gt;W</b>	
<b>Designation</b>							
Librarian	Mean	4.22	4.09	3.56	3.53	4.06	U>O>HC>S>P
	Std.	.975	.856	1.134	1.344	.914	
Dy. Librarian	Mean	3.94	3.83	3.31	3.43	3.91	U>HC>O>P>S
	Std.	1.259	.923	1.022	1.195	1.222	
Asst. Librarian	Mean	4.47	4.41	3.60	3.60	4.08	U>O>HC>P>S
	Std.	.904	.833	1.020	1.208	1.029	
Others	Mean	4.21	4.18	3.59	3.71	3.91	U>O>HC>P>S
	Std.	1.065	.953	.980	1.216	1.110	
		<b>A&gt;L&gt;O&gt;DL</b>	<b>A&gt;L&gt;O&gt;DL</b>	<b>A&gt;L&gt;O&gt;DL</b>	<b>A&gt;L&gt;O&gt;DL</b>	<b>A&gt;L&gt;O&gt;DL</b>	
<b>Overall</b>							
Total	Mean	4.27	4.21	3.57	3.63	3.98	U>O>HC>P>S
	Std.	1.036	.917	1.010	1.221	1.079	

In between the age groups, Below 45 years have Utility, Orientation, Human Contact, Print Tools and Survey were the order of preferences whereas, Above 45 years, the first two preferences get interchanged. Below 45 years, the higher order of preference for Utility and Orientation where as Above 45 years, it was Surveys, Print tools, and Human Contact. In the case of gender, male and female have an identical order of preferences. In the case of the higher order of preference given for Orientation, Human Contact, Print tools, and Surveys whereas male gave higher order for Utility.

In the case of region, Northern, Southern, Eastern, and North eastern have an identical opinion as like that of gender. Whereas in the case of Western region, the third and fourth opinion gets interchanged wherein the Central region first two preferences get interchanged. The central region has a higher order of preference for Orientation, Survey and Print tools. In the case of the Eastern region, the higher order of preference given for Utility whereas the Southern region, the order of preference given for Human contact.

In the case of designation, Asst. Librarian and other Library professionals have an identical preference as like of the gender. Whereas in the case of Librarian last two preferences get interchanged and in the case of Dy. Librarians, second and third preferences interchanged. Asst. Librarians have a higher order of preferences than the other professionals.

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The first three preferences on four Ps – Product, Price, Place, and Promotion were shown in Table 14.

**Table 14: Preferences on 4 Ps of Marketing Mix**

S. No.	Category	1 <sup>st</sup> Preference	2 <sup>nd</sup> Preference	3 <sup>rd</sup> Preference
1	Product	Evaluation	Participation	New Product
2	Price	Free Service	Fee Barrier	Minimal Cost
3	Place	Distribution Channel	Technological Advancement	Inconvenience
4	Promotion	Utility	Orientation	Human Contact

It is inferred that in the case of the respondents are giving preference to Evaluation, Participation and New Product. Similarly, in the case of Price, the preferences are Free Service, Fee Barrier and Minimal Cost. In the case of Place, the orders of preferences are Distribution Channel, Technological Advancement and Inconvenience. As in the case of Promotion, the orders of preferences are Utility, Orientation, and Human Contact.

The Age, Gender, Region & Designation preferences for Product, Price, Place, and Promotion were shown in Table 15.

**Table 15: Preferences on 4 Ps of Marketing Mix - Age, Gender, Region & Designation**

S. Nos.	Category	Variable	Region	Designation	Gender	Age
1	Product	Quality`	Central	Dy. Librarian	Female	Above 45 years
		Participation	Central	Other Professionals	Female	Above 45 years
		New Product	Central	Asst. Librarian	Male	Below 45 years
		Evaluation	Central	Librarian	Female	Above 45 years
2	Price	Free Service	Central	Other Professionals	Female	Above 45 years
		User Charges	Central	Dy. Librarian	Female	Above 45 years
		Fee Barrier	Central	Other Professionals	Male	Above 45 years
		Minimal Cost	Central	Other Professionals	Female	Above 45 years
3	Place	Inconvenient	Central	Other Professionals	Female	Above 45 years
		Technological Advancement	Central	Dy. Librarian	Female	Above 45 years
		Distribution Channel	Central	Other Professionals	Female	Above 45 years
4	Promotion	Utility	Eastern	Asst Librarian	Male	Below 45 years
		Orientation	Central	Asst Librarian	Female	Below 45 years
		Survey	Central	Asst Librarian	Female	Above 45 years
		Print Tools	Central	Asst Librarian	Female	Above 45 years
		Human Contact	Southern	Asst Librarian	Female	Above 45 years

It is inferred from Table 15 that most higher order preference from Central region followed by the female, Other library professionals of above 45 years.

## CONCLUSIONS

This study has been carried out based on the objectives to identify the concept of marketing mix among Library and Information Science professionals. It is also further analyzed whether the LIS professionals have a clear vision on the products they have to deal with them and realize the amount that has been invested and make them utilize by the users. This study also enables to identify whether the LIS professionals make use of the place for promoting the products and services and to know the promotional attitude of LIS professionals in their product and services. The study was carried out among the library professionals working in 47 central universities in India.

The respondents were given preference for Evaluation, Participation and New Product in the case of Product. Similarly, in the case of Price, the preferences were Free Service, Fee Barrier, and Minimal Cost. In the case of Place, the

order of preferences were Distribution Channel, Technological Advancement and Inconvenience. As in the case of Promotion, the orders of preferences were Utility, Orientation and Human Contact. Most higher order preference from Central region followed by a female, Other library professionals of above 45 years.

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