

**MODALITIES OF INFORMATION SHARING AMONG THE
FACULTIES AND RESEARCHERS OF AYUSH NATIONAL
INSTITUTIONS**

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ABSTRACT

The Information Sharing (IS) is an inevitable phenomena among the human beings but it is much among the academics and researchers towards their pursuits. In this context, this research study made an attempt to focus on the IS behaviors of academics Researchers of the National Institutions of AYUSH. The study is focusing on three levels of IS such as subordinates, colleagues and superiors with four angles/scales like 'No information is shared, not much information is shared, certain type of information is shared and most of the information is shared. And, all these variables are analyzed with Structural Equation Modeling (SEM) in the point view of different institutions under study. The results indicate that the academicians and researchers are preferred to share much information with colleagues and superiors.

Keywords: History of AYUSH, Interpersonal Information Sharing, SEM Model

1. Introduction

The modern era facilitate many avenues to share the information among the academics and researcher. It is necessary and inevitable for the libraries to study the pattern or modalities of sharing of the information among the users especially the faculties' and researchers so as to devise a plan to networking and resource sharing of information among the libraries as well as among individuals. In this context, this study has been made an attempt to focus the modalities of information sharing among the academics of four national institutions of AYUSH. The AYUSH, an umbrella for the traditional Indian medical systems as well as Unani and Homoeopathy. The knowledge and practices of these systems are essentials for today's world which is prone with dreadful diseases because of changing food styles and climate changes.

2. Historical perspectives of AYUSH

A separate Department of Indian Systems of Medicine and Homoeopathy (ISM&H) was set up in 1995 in order to promote traditional medical education and research in India. The Department of ISM&H was re-named as the Department of AYUSH (an acronym for – Ayurveda, Yoga and Naturopathy, Unani, Siddha, Homoeopathy) in November 2003. The AYUSH comes under Ministry of Health and Family Welfare. Under AYUSH, few of the National Institutions, Laboratories and Research Councils are functioning in different parts of India so as to impart higher education and research. And all these National Institutions and few of the Research Councils are supplemented with libraries. Among all these, only the information sharing behaviors of the faculties and researchers of four national institutions (Details are given in subsequent paras) are taken in to account by this study.

3. Need for the study

Information sharing is a traditional one which is as much as old like civilization and culture which now reaches in to new arena and domains with ICT applications. When mankind started communicates their knowledge to the individuals, the concept of information sharing is emerged. Though it reaches new heights at the movement, but it is basically psychological and behavioral aspect which needs much attentions of the professionals to understand the information sharing patterns of the individuals as well as the library users so as to make effective information sharing among the users. So, in this context this study focusing on the information sharing patterns of the academics of traditional medical institutions so as to offer suggestions to make effectiveness in the information sharing and networking.

4. Objectives

The following objectives are framed

- ❖ To study the Inter-personal sharing of information with Colleagues
- ❖ To identify Sharing of Information with Subordinate and Juniors among the respondents of the Institutions under study
- ❖ To study Sharing of Information with Superiors among the respondents of the study
- ❖ To study the Sharing of Information with Subordinate and Juniors among the respondents of the study
- ❖ To formulate guidelines to the libraries to enhance the information sharing modalities

5. Review of Literature

Fussler (1979)¹ reviewed resource sharing of its most positive aspects entails reciprocity, implying a partnership in which each member has something useful to contribute to others and which each is willing and able to make available when needed.

Sharon Bonk (1990)² structure of interlibrary loan in the United Kingdom is summarized and the changing technology, economics, and political dimensions of interlibrary loan are discussed. Parallels with and implications for American libraries are presented.

Lee and Richard (1992)³ explained the relations between organizational structures and Information Sharing structures based on requirements for information sharing.. Task characteristics, technological interdependency, work teams, and networked structures of organizations determine information sharing requirements.

Kaliyaperumal and Thandavamoorthy (1993)⁴ discussed the usage of modern technologies in the health care libraries in Madras and also identified the problems in adopting modern Technologies for information handling and sharing.

Jewels and Ford (2006)⁵ devised a model to suggest that an individual's propensity to share knowledge and experience is a function of perceived personal benefits and costs associated with the activity, balanced against the individual's alignment to a group of institutional factors.

Sharing and Transforming Access to Resources Section International Inter library Loan Committee (2009)⁶ guided in developing tools to resolve issues that may hinder international resource sharing and uncover opportunities to promote and expand both the use of and the participation in global ILL services. This article intends to reflect on changes in the resource-sharing environment since 1998, provide an overview of current practice, and lay the foundation for future International Interlibrary Loan Committee efforts.

6. Research Methodology

Based on the objectives of the study, a structured questionnaire has been designed and administered among the users of the four national institutions libraries by employing purposive sampling technique. The details are as follows:

Table No.1: Classification of National Institutions of AYUSH in India

S.No.	Name of the Institution	Location	Year of establishment	University Affiliations
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1.	National Institute of Ayurveda. (NIA)	Jaipur	1976	Rajasthan Ayurvedic Univ.
2.	Rashtriya Ayurveda Vidyapeeth (RAV)	New Delhi	1988	Delhi Admn.Society Reg. act 1860
3.	Institute for Post Graduate Training and Research in Ayurveda. (IPGTRA)	Jamnagar	1956	Gujarat Ayurved University(Separate)
4.	National Institute of Unani Medicine (NIUM)	Bangalore	1984	Rajiv Gandhi Univ. of health Sci. Karnataka
5.	National Institute of Siddha (NIS)	Chennai	1998	Dr. MGR Medical Univ. Chennai
6.	Morarji Desai National Institute of Yoga (MDNIY) Societies Act 1860	New Delhi	1970	Guru Gobin Singh Indraprasad Univ. Delhi
7.	National Institute of Naturopathy (NIN) (Formerly Nature cure Clinic and Sanatorium)	Pune	1975	All India Nature cure foundation (Trust)
8.	National Institute of Homoeopathy (NIH)	Kolkata	1975	West Bengal University of Health Science

Among the list of national institutions presented in the table no – 1, the study has been carried out among the respondents of only four national institutions as follows:

- ❖ National Institute of Ayurveda. (NIA)
- ❖ National Institute of Homoeopathy (NIH)
- ❖ National Institute of Unani Medicine (NIUM)
- ❖ National Institute of Siddha (NIS)
- ❖ University of Madras (UNOM), it is a collaborative institute of NIS which is also taken into account for this study.

Table No. 2: Distribution of Questionnaire and Response Rate

S.No	Name of the Institute	Questionnaire distributed	Response Received	Response Rate(Percentage)
1	NIA	396	108	27.3
2	NIH	138	97	70
3	NIU	110	101	91.8
4	NIS	169	123	72
5	UNOM	8	8	100
	Total	821	437	53.2

Table no – 2 shows the distribution of questionnaire among the samples. It is observed from the table that out of 821 questionnaires distributed to five institutions 437 Questionnaires received from the respondents of all these institutions and the response rate is 53.2 percent. Thus, the primary data has been analysed with SPSS software and presented as follows:

7. Demographic profiles of the respondents

Table No. 3: Sex wise distribution of the respondents

Nature of systems	Sex		Total
	Male	Female	
NIA	72 (16.5)	36 (8.2)	108 (24.7)
NIH	43 (9.8)	54 (12.4)	97 (22.2)
NIU	79 (18.1)	22 (5.0)	101 (23.1)
NIS	39 (9.0)	84 (19.2)	123 (28.1)
UOM	3 (0.7)	5 (1.1)	8 (1.8)
Total	236 (54.0)	201 (46.0)	437 (100)

Note: (Figures in the parenthesis indicate percentage)

It is seen from the table no – 3 that out of 432 respondents, 236 responds (54 %) are male and 201 respondents (46%) are female. A close look at the table reveals that the representation of male respondents is more in NIA and NIU and female are more participated from remaining institutions .

Table No. 4: Age-wise distribution of the respondents

Name of the institutions	Age groups (in years)					Total
	Below 25	26-35	36-45	46-55	Above 55	
NIA	7 (7.7)	55 (22.8)	28 (44.4)	15 (57.7)	3 (18.8)	108 (24.7)
NIH	19 (20.9)	59 (24.5)	14 (22.2)	4 (15.5)	1 (6.3)	97 (22.2)
NIU	36 (39.6)	40 (16.6)	18 (28.6)	7 (26.9)	0 (.0)	101 (23.1)
NIS	24 (26.4)	84 (34.9)	3 (4.8)	0 (.0)	12 (75.0)	123 (28.1)
UoM	5 (5.4)	3 (1.2)	0 (.0)	0 (.0)	0 (.0)	8 (1.8)
Total	91 (20.8)	241 (55.1)	63 (14.4)	26 (5.9)	16 (3.7)	437 (100)

Note: (Figures in the parenthesis indicate percentage)

It is seen from the table no – 4 that 55 percent respondents of young age group between 26 to 35 years are participated in the study, followed by the age group of 36 to 45 years constituted into 14.4 percent. The remaining age groups are less participated in the survey.

Table No. 5: Types of respondents

Types of respondents	Sex		Total
	Male	Female	
P.G Scholar	139 (31.8)	161 (36.8)	300 (69.0)
Ph.D Scholar	5 (1.14)	16 (3.7)	21 (4.8)
Lecturer	33 (7.5)	10 (2.3)	43 (9.8)
Assistant Professor	27 (6.2)	3 (0.7)	30 (7.0)
Associate Professor	22 (5.0)	10 (2.3)	32 (7.32)
Professor	10 (2.3)	1 (0.22)	11 (2.51)
Total	236 (54.0)	201 (46.0)	437 (100)

It is seen from the table no – 5 that 69 percent of PG students are participated from all the libraries under study even among them, female are dominated in the survey. Followed by this PhD scholars are minimum participated in the survey from all the libraries along with minimum participation of faculties.

8. Inter-personal sharing of information

Interpersonal sharing of information with three levels such as subordinates, colleagues and superiors with four angles/scales like ‘No information is shared, Not much information is shared, certain type of information is shared and most of the information is shared. And all these variables analyzed with SEM model in the point view of different institutions under study. In order to run Structural Equation Modeling STATA version 13.1 statistical software has been used.

9. Structural Equation Model (SEM) for IS

Structural Equation Model is a family of statistical model that seek to explain the relationship among the multiple variables. It examines the structure of interrelationship expressed in a series of equations, similar to a series of multiple regression equation. This equation show all of the relationship among constructs (dependent and independent variables) involved in the analysis. Constructs are unobservable or latent factors represented by multiple

variables. So, for each multivariate technique has been classified either as an interdependent or dependence technique. SEM can be thought of as a unique combination of both types of techniques because SEM's foundation lies in two familiar multivariate techniques: factor analysis and multiple regression analysis.

9.1 Unstandardized Estimates

Table 6 presents the unstandardized path coefficients associated with the regression of information seeking behavior of respondents. While the unstandardized coefficients are the most primary parameters obtained from a multiple regression. In fact, typically the significance tests associated with regression are tests of the unstandardized parameters, and the standardized parameters are simply derived from the unstandardized coefficients and not directly tested. Characteristic of unstandardized parameters, they are expressed in the original units of the explanatory and dependent variables. With reference to a simple linear regression, unstandardized coefficients associated with directed paths represent the slope of the relationship. The same is true in multiple regressions, although the slope is in *n*-dimensional space. As we begin to interpret the results in Fig.1, note that the undirected relationships (double-headed arrows) represent the covariances among exogenous variables (predictors) in a model. In contrast, the coefficients associated with directed paths are partial regression coefficients. It is important for the discussion that follows to understand when the principles of partial regression apply. Simply put, partial regression represents a method of statistical control that removes the effect of correlated influences.

Table No.6: Unstandardized estimates

Institutes	Variables	Coefficients	Std. error	Z Value	P Value
NIA	Subordinates	3.35	0.055	60.82	0.00
	Peers and Colleagues	4.13	0.039	105.78	0.00
	Superiors	3.74	0.041	89.85	0.00
NIH	Subordinates	0.84	0.077	10.87	0.00
	Peers and Colleagues	0.97	0.059	16.50	0.00
	Superiors	0.65	0.084	7.72	0.00
NIU	Subordinates	1.05	0.075	13.85	0.00
	Peers and Colleagues	1.00	0.074	13.56	0.00
	Superiors	1.06	0.090	11.68	0.00
NIS	Subordinates	0.98	0.071	13.83	0.00
	Peers and Colleagues	0.97	0.068	14.15	0.00
	Superiors	1.00	0.701	14.32	0.00

UOM	Subordinates	0.99	0.073	13.63	0.00
	Peers and Colleagues	1.12	0.057	19.65	0.00
	Superiors	0.80	0.067	11.97	0.00

Source: Computed.

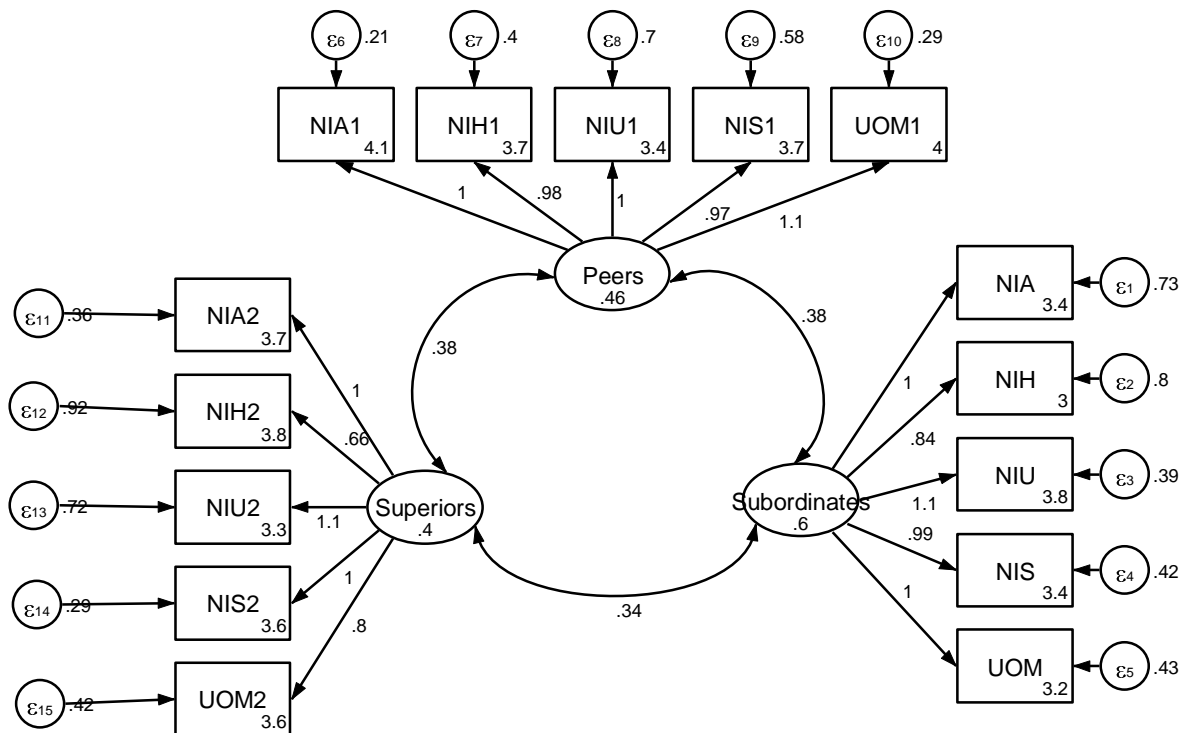
Covariance	Subordinate	Coefficients	Std. error	Z Value	P Value
	Peers and Colleagues	0.37	0.041	9.11	0.00
	Superiors	0.33	0.040	8.40	0.00
	Peer/ Superiors	0.38	0.036	10.35	0.00

Chi Square = 622.63 P value=0.00

The model is fit as the computed Chi-square value is greater than table value. We would draw the interpretation from table that in the case of subordinates among the sample institutions National Institutions of Ayurvedha receive or share more information as the coefficient value is 3.35 which is greater than others. Comparing with peers and colleagues NIA respondents share more information as the coefficient value is 4.13. regarding to superior, the same interpretation is applicable.

From the figure given below , it is observed that the correlation between peers and subordinates is 0.38; peers and superiors is 0.38; subordinates to superiors is 0.34 implies that almost 38 percentage relationship existed between the three variables.

Figure No.1: SEM Model for interpersonal sharing of information



9.2 Standardized Estimates

Standardized coefficients are the estimates resulting from regression analysis in which independent variables have been standardized so that their variances are equal to 1. In this context, standardized coefficients refer to how many standard deviations a dependent variable will change, per standard deviation increase in the predictor variable. In this study, the level of awareness has taken as dependent variables and scores obtained by various group of respondents i.e. subordinates, peers and colleagues and Superiors have considered as independent variables. It is observed from the table that considering national institute of Ayurvedha a unit change or increasing score will shows increasing level of information sharing among the subordinates about 67 percent; 82 percent for peer and colleagues and 72 percent for Superiors. It is to be noted from the findings that the level of sharing is higher among the peers and colleagues. In the case of NIH and UOM, Peers and Colleagues group obtain more sharing level than rest of the group. In the case of NIU and NIS, Subordinates receives more information sharing level.

Table No 7: Standardized Estimates

Institute	Variables	Coefficients	Std. error	Z Value	P Value
NIA	Subordinates	0.67	0.030	22.14	0.00
	Peers and Colleagues	0.82	0.019	42.80	0.00

	Superiors	0.72	0.027	26.63	0.00
NIH	Subordinates	0.58	0.035	16.77	0.00
	Peers and Colleagues	0.72	0.026	27.72	0.00
	Superiors	0.39	0.044	8.99	0.00
NIU	Subordinates	0.79	0.023	33.44	0.00
	Peers and Colleagues	0.63	0.032	19.53	0.00
	Superiors	0.62	0.034	17.93	0.00
NIS	Subordinates	0.76	0.025	30.37	0.00
	Peers and Colleagues	0.65	0.030	21.26	0.00
	Superiors	0.76	0.026	29.11	0.00
UOM	Subordinates	0.76	0.025	30.22	0.00
	Peers and Colleagues	0.81	0.020	40.13	0.00
	Superiors	0.61	0.033	18.39	0.00

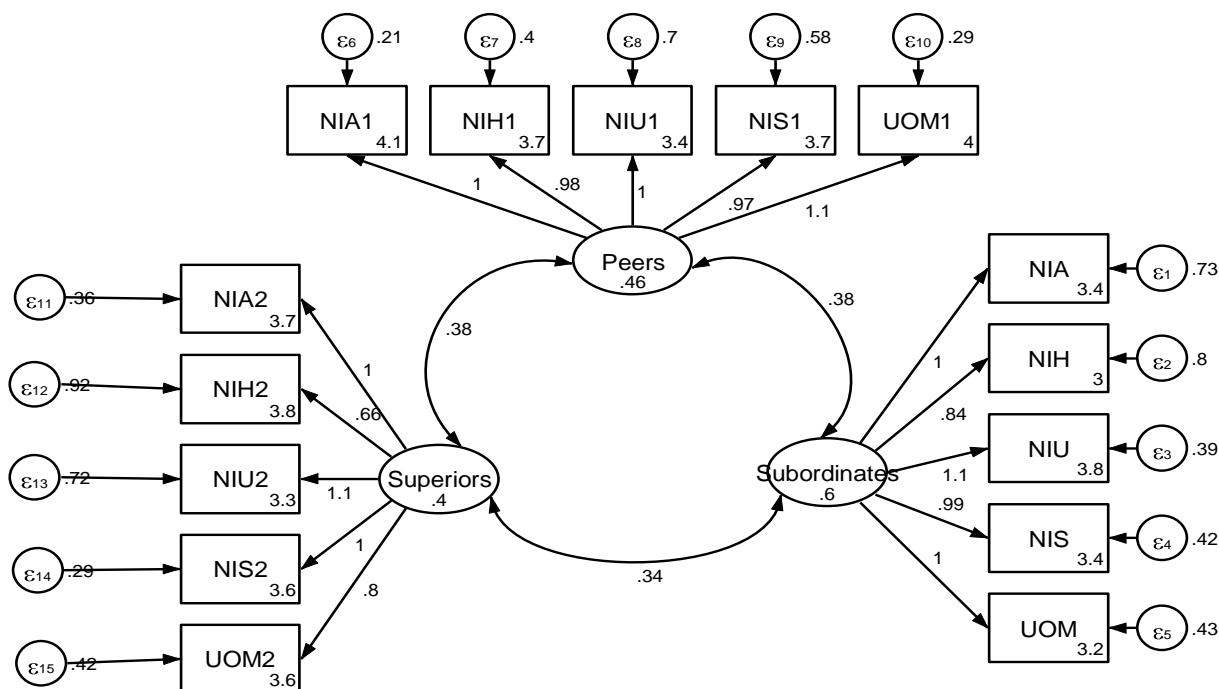
Source: Computed.

Covariance		Coefficients	Std. error	Z Value	P Value
	Subordinate				
	Peers and Colleagues	0.71	0.032	21.89	0.00
	Superiors	0.68	0.036	18.59	0.00
	Peer/ Superiors	0.89	0.023	38.78	0.00

Chi Square = 622.63 P value 0.00

The covariance table reveals that correlation between the three variables. It is found from the table that the correlation between Peers and Colleagues is 0.71; peer and superiors is 0.89. It is found from the table that there is high correlation existing between peers and superiors. The computed p value supports that the model is fit.

Figure No.2 Standardized



10. Concluding observations

The study reveals many interesting facts that the academics of these institutions prefer to share more information among the colleagues, followed by superiors. But they are willing to share less information to the subordinates, the reason is that as for their academic and research activities they prefer to share and communicate more with equals rather than subordinates. As such, the libraries are suggested to establish the interpersonal communication with Social networking sites that can be incorporated with cloud networking modalities controlled by AYUSH Head quarters. Further, the subjects that are dealt by these institutions are highly interrelated and the research information are much needed for every individual user of each institution, thus the networking of these libraries are inevitable with modern networking so as to share the information within and across the institutions.

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