

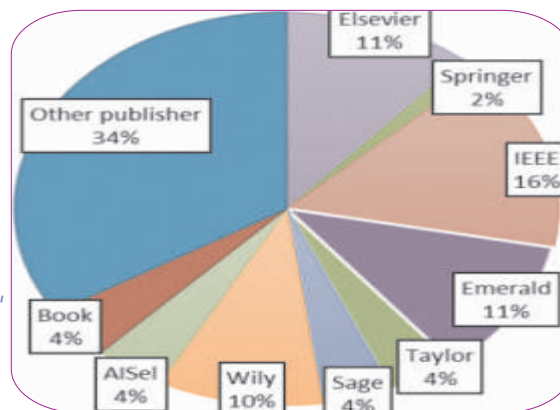


SIGNIFICANCE OF DEMOGRAPHY ON KNOWLEDGE SHARING BEHAVIOR AMONG MEDICAL PRACTITIONERS

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ABSTRACT

The purpose of this study was to investigate the relationships between knowledge sharing behaviour and the demographic variables gender, age, Education level, Position and professional tenure/experience. The study sourced its data from teaching faculty of medical colleges of Bengaluru in Karnataka, India. Knowledge sharing behaviour was measured using an instrument sourced from the extant literature. A survey of 600 respondents using the questionnaire as data collection method was conducted. The results show that demographic variables are not significant predictors of practitioner's knowledge sharing quality. No statistically significant relationship was detected between knowledge sharing behaviour and gender, age, or professional tenure/experience. Thus, according to these findings, demographic variables do not appear to be important determinants of knowledge sharing behaviour.

KEYWORDS: Knowledge Sharing, Behaviour, Demographic variable, Practitioner.

INTRODUCTION :

Knowledge has been identified as the most strategically significant resource for organisations to gain competitive advantage and superior performance. As Botha and Fouché (2002) correctly argue, knowledge per se cannot be managed: as such, the focus of knowledge management is to influence positively the context in which people create, share, and exploit knowledge. Stimulating knowledge sharing, in particular, remains an important thrust of the knowledge management movement, which is concerned with the flow of knowledge between larger organisational entities such as departments and organisations themselves. (Ipe, 2003) That famous lament by a former executive of the Hewlett-Packard Company – 'if only HP knew what HP knows' – was an endorsement of the importance of knowledge sharing to organisational effectiveness. (Sieloff, 1999) As it has already been noted, efficient knowledge sharing has a positive impact on organisational performance. (Chen, 2006, Du, Ai & Ren 2007, Jacobs 2007, Lin 2007, Pai 2006, Yang 2007) Previous studies indicated that employees, in general, are reluctant to share knowledge. (Husted 2005, Chiu 2006) Thus, it is important to identify factors affecting knowledge exchange in the organisation including demographic factors.

Literature Review

Demographic factors and knowledge sharing quality

Gender

Changes in demography are one of the factors that affect knowledge sharing and knowledge transfer in public services.(Rashman, 2008) However, there were only a few studies that look into the impact of demographic factors on knowledge sharing behaviour.(Pangil, 2008) Among demographic variables been considered were gender, age, organisational tenure, job position and ethnicity. Regarding the relationship between sex and knowledge sharing, previous studies reported that gender did not have a significant impact on knowledge sharing.

Age

A study by Ojha(2005) and Watson and Hewett (2006) showed that age does not affect knowledge sharing behaviour. However,Reige(2005) suggested that difference of age could also be a potential factor for knowledge sharing behaviour. This element is supported by a study by Gumus(2007) which indicated that there were significant differences between age groups concerning knowledge collecting not knowledge donating. People with the age between 36 to 40 are poor on obtaining knowledge. A study by Keyes uncovered a more definite relationship between age and knowledge sharing.

Educational Level

The level of education was also reported that it does not influence knowledge sharing among software engineering development managers.(Ojha, 2005)However,Riege(2005) found that there is a likely hood a causal relationship between education level and knowledge sharing behaviour. A study by Keyes indicated that education somewhat affect knowledge sharing.The lower the education level, the less likely persons would share knowledge.

Job/Position level

Job position is another variable that has been studied beside gender, age and education level. Ardichvili(2006) found that the middle managers were not interested in participating in knowledge sharing activities. This indicates that job position has no significant impact on knowledge sharing behaviour.

Work Experience

According to Pangil and Nasrudin(2008) no study reports the effect of work experience on knowledge sharing behaviour. Organisational tenure has a significant negative relationship with knowledge sharing(Ojha, 2005).

OBJECTIVES FOR THE STUDY

The research Objectives that this study will address include:

1. To study the influence of supportive leadership and knowledge sharing culture on knowledge sharing among Medical practioners
2. To study the influence of infrastructure for accessing the information other than library towards knowledge sharing among Medical practioners
3. To study the use of tools and technology for knowledge sharing among Medical practioners

HYPOTHESES

The hypotheses of the present study are as follows:

1. H_0 : There is no significant difference in preferences among six classifications of respondents with respect to supportive leadership and knowledge sharing
 H_1 : There is a significant difference in preferences among six classifications of respondents with respect to supportive leadership and knowledge sharing
2. H_0 : There is no significant difference in preferences among six classifications of respondents with respect to knowledge sharing culture.

H_1 : There is a significant difference in preferences among six classifications of respondents with respect to knowledge sharing culture.

METHODOLOGY

The study begins with a retrospective search of the literature was done by using library and information science abstract (LISA), Library, Information science, and technology Abstracts (LISTA), open archive data base, E-Journals data base and other related primary sources, particularly journals in public domain including related websites and online resources such as Mendeley, research gate Emerald databases and so on. In addition, researcher approached research papers, proceedings in this context to ascertain where it was difficult to obtain full text of the relevant articles.

STUDY POPULATION AND SAMPLING

The target populations of this study were the faculty in the medical colleges in Bangalore, of the 19 medical colleges, 12 were taken up for the study. As of 2014-15, there are a total of 4717 faculty in Bangalore. The researcher has been able to distribute 700 questionnaires to the faculties, however only 600 duly filled in questionnaires were obtained, which accounts for 95 percent of the total population of respondents.

DESCRIPTIVE STATISTICS

The Descriptive procedures displays summary statistics for several variables in a single table and calculates standardized values (z Scores). Variables can be placed in order by the size of their means (in ascending or descending order), alphabetically or by the order in which you select the variable (the default).

After the data collection was done with, the collected data were analyzed using suitable statistical techniques such as Mean, Kruskal Wallis Test, Mann Whitney U Test, ANOVA and Structured Equation Modelling (SEM), and (AMOS) Statistical Packages for Social Sciences (SPSS. IBM 21.0) has been used for the analysis.

A reliability test conducted for each construct which measures knowledge sharing quality, Cronbach alpha is ranged between .622 to .974, the result is entirely satisfactory.

Table -1

Constructs	Cronbach's Alpha	N of Items
Supportive leadership and knowledge sharing	.622	3
Infrastructure for knowledge sharing	.797	4
Knowledge sharing culture	.887	7
Tools and technology in knowledge sharing	.884	12
Attitude towards knowledge sharing	.697	5
Personal factor for knowledge sharing	.605	5
Benefits of knowledge sharing	.974	11

KRUSKAL-WALLIS TEST

Table -2 Mean, Standard Deviation and Test Statistics of SUPPORTIVE LEADERSHIP AND KNOWLEDGE SHARING

$H_0 = \mu_{HODP} = \mu_{ASSOP} = \mu_{ASSTP} = \mu_{PGT} = \mu_{SR} = \mu_{JR}$

$H_1 =$ at least one of them not equal to another.

Table -2

Code	Descriptive Statistics				Test Statistics ^{a,b}	
	SUPPORTIVE LEADERSHIP AND KNOWLEDGE SHARING.	Mean	SD	Asymp. Sig.	Decision	
LKS1	There are policies that encourage knowledge sharing in the organization.	4.059	0.9574	0.0032	Sig.Diff	
LKS2	The organizational structure of the department allows for ease of knowledge sharing among all professional staff.	4.010	0.4998	0.0061	Sig.Diff	
LKS3	The department has a system in place to ensure that knowledge from experienced staff, who either resign or retire, is retained.	4.049	0.8489	0.0066	Sig.Diff	
Df=5	a. Kruskal Wallis Test			b. Grouping Variable: Sectorial Belonging		

Interpretation:

From the above Table-2, the mean of LKS 1, LKS 2, & LKS 3 are 4.059, 4.010, 4.049 respectively, which indicate that the respondents are in agreeableness with the factor Supportive Leadership.

The above matrix 2, indicated more than 0.05 shows, there is no statistical evidence to say there is a significant difference in rank orders by the respondents of three classifications of respondents in supportive leadership and knowledge sharing with regard to factor LKS 1. Hence, there is no need to go check whether they have significant difference among themselves in rank orders/preference with regard to factor.

Now, it would be interesting to know, between these respondents of three classifications of respondents in supportive leadership and knowledge sharing which of them have significant difference among themselves in rank orders/preference with regard to LKS 1, LKS 2, & LKS 3 that will have impact on Knowledge Sharing among Medical Practitioners.

From the Table number 2.1 with respect to LKS 1, LKS 2, & LKS 3, p values which are less than 0.05 are statistically significant differences in their response among respondents and others are not statistically significant differences in their opinion to each other.

For example, the 'p'-value obtained between HoDP and ASST PROF is 0.0015, which is less than 0.05, it can be concluded that there is a significant difference in ranking orders/preference of respondents of HoDP and ASST PROF with respect to the statement in the factor 'supportive leadership and knowledge sharing LKS 3.

Again, since the p-value obtained between HoDP and S R is 0.0773, which is more than 0.05, it can be concluded that there is no significant difference in ranking orders/preference of respondents of HoDP and S R. This interpretation has been done with respect to the statement in the factor 'supportive leadership and knowledge sharing LKS1'.

Using Mann-Whitney U-test, we have the following results: The p-values are summarized in the matrix below;

Table 2.1 Consolidated "p" values of SUPPORTIVE LEADERSHIP AND KNOWLEDGE SHARING Factors

Code		HoDP		AssoP		AsstP		PG T		SR		JR	
		LKS1	LKS2	LKS1	LKS1	LKS1	LKS1	LKS1	LKS1	LKS1	LKS1	LKS1	LKS1
HoDP	LKS1	...	...								
	LKS2	...	...								
AssoP	LKS1	0.0670	0.0317	...	...						
	LKS2	0.0858	0.0339	...	...						
AsstP	LKS1	0.0015	0.0447	0.0242	0.0057	...	...				
	LKS2	0.0126	0.0494	0.0679	0.0114	...	...				
PG T	LKS1	0.0079	0.0816	0.0764	0.0201	0.0615	0.0975	...	...		
	LKS2	0.0812	0.0698	0.0536	0.0881	0.0226	0.0723	...	...		
S R	LKS1	0.0773	0.0663	0.0766	0.0313	0.0223	0.0622	0.0745	0.0207	...	...
	LKS2	0.0289	0.0456	0.0831	0.0358	0.0062	0.0013	0.0814	0.0222	...	...
J R	LKS1	0.0021	0.0631	0.0707	0.0098	0.0581	0.0157	0.0853	0.0882	0.0182	0.0470	...	...
	LKS2	0.0542	0.0036	0.0913	0.0414	0.0175	0.0865	0.0318	0.0356	0.0973	0.0283	...	...

Source: Primary data

Table 2.2 Consolidated "p" values of SUPPORTIVE LEADERSHIP AND KNOWLEDGE SHARING Factors

		HoDP	AssoP	AsstP	PG T	S R	J R
Code		LKS3	LKS3	LKS3	LKS3	LKS3	LKS3
HoDP	LKS3	...					
AssoP	LKS3	0.0476	...				
AsstP	LKS3	0.0940	0.0315	...			
PG T	LKS3	0.0919	0.0717	0.0150	...		
S R	LKS3	0.0266	0.0450	0.0054	0.0643	...	
J R	LKS3	0.0508	0.0905	0.0920	0.0336	0.0040	...

Source: Primary data

Table-3 Mean, Standard Deviation and Test Statistics of KNOWLEDGE SHARING CULTURE

 $H_0 = \mu_{HODP} = \mu_{ASSOP} = \mu_{ASSTP} = \mu_{PG T} = \mu_{S R} = \mu_{J R}$ $H_1 =$ at least one of them not equal to another.

Table-3

Code	Descriptive Statistics			Test Statistics ^{a,b}	
	KNOWLEDGE SHARING CULTURE	Mean	SD	Asymp. Sig.	Decision
KSC1	There is a good level of knowledge sharing among all in my section.	4.046	0.0216	0.0261	Sig.Diff
KSC2	In the work situation knowledge is generally shared among staff.	4.030	0.0802	0.0148	Sig.Diff
KSC3	There is hoarding (stock)of knowledge among colleagues.	4.075	0.1014	0.0368	Sig.Diff
KSC4	Knowledge that is essential to my work is readily available.	4.028	0.9783	0.0366	Sig.Diff
KSC5	There is sharing of feelings and perceptions about work issues among colleagues.	4.065	0.9852	0.0234	Sig.Diff
KSC6	Staffs are encouraged to record all the steps that they follow in their day to day tasks and activities	4.028	0.6428	0.0336	Sig.Diff
KSC7	Minutes of meetings and feedback from workshops are kept and used later for the improvement of services.	4.079	0.9380	0.0121	No Sig.Diff
Df=5	a. Kruskal Wallis Test			b. Grouping Variable: Sectorial Belonging	

Interpretation:

From the above Table-3, the mean of KSC1, KSC 2, KSC 3, KSC 4, KSC 5, KSC 6 & KSC 7 are 4.046, 4.030, 4.075, 4.028, 4.065, 4.028, 4.079 respectively, which indicate that the respondents are in agreeableness with the factor knowledge sharing culture factor.

The above matrix 3, indicated more than 0.05 shows, there is no statistical evidence to say there is a significant difference in rank orders by the respondents of six classifications of respondents in knowledge sharing culture with regard to factor KSC1 & KSC 7. Hence, there is no need to go check whether they have significant difference among themselves in rank orders/preference with regard to factor.

Now, it would be interesting to know, between these respondents of six classifications of respondents in knowledge sharing culture, which of them have significant difference among themselves in rank orders/preference with regard KSC1, KSC 2, KSC 3, KSC 4, KSC 5, KSC 6 that will have impact on Knowledge Sharing among Medical Practitioners.

From the Table number 3.1 with respect to KSC1, KSC 2, KSC 3, KSC 4, KSC 5 & KSC 6, p values which are less than 0.05 are statistically significant differences in their response among respondents and others are not statistically significant differences in their opinion to each other.

For example, the 'p'-value obtained between HoDP and ASST PROF is 0.0093, which is less than 0.05, it can be concluded that there is a significant difference in ranking orders/preference of respondents of HoDP and ASST PROF with respect to the statement in the factor 'knowledge sharing culture factors KSC2.

Again, since the p-value obtained between HoDP and S R is 0.0617, which is more than 0.05, it can be

concluded that there is no significant difference in ranking orders/preference of respondents of HoDP and S R. This interpretation has been done with respect to the statement in the factor 'knowledge sharing culture factors KSC 1':

Using Mann-Whitney U-test, we have the following results: The p-values are summarized in the matrix below;

Table 3.1 Consolidated "p" values of KNOWLEDGE SHARING CULTURE Factors

Code		HoDP		AssoP		AsstP		PG T		S R		J R	
		KSC1	KSC2	KSC1	KSC2	KSC1	KSC2	KSC1	KSC2	KSC1	KSC2	KSC1	KSC2
HoDP	KSC1	...	...								
	KSC2	...	...								
AssoP	KSC1	0.0370	0.0097	...	...						
	KSC2	0.0520	0.0682	...	...						
AsstP	KSC1	0.0093	0.0112	0.0318	0.0576	...	...				
	KSC2	0.0240	0.0517	0.0195	0.0998	...	...				
PG T	KSC1	0.0544	0.0265	0.0009	0.0018	0.0191	0.0138	...	...		
	KSC2	0.0434	0.0828	0.0145	0.0517	0.0307	0.0927	...	...		
S R	KSC1	0.0617	0.0042	0.0956	0.0405	0.0985	0.0725	0.0285	0.0087	...	...
	KSC2	0.0820	0.0899	0.0664	0.0218	0.0736	0.0551	0.0670	0.0134	...	...
J R	KSC1	0.0216	0.0998	0.0202	0.0390	0.0863	0.0614	0.0677	0.0929	0.0943	0.0307	...	...
	KSC2	0.0806	0.0946	0.0645	0.0811	0.0002	0.0570	0.0951	0.0641	0.0468	0.0857	...	...

Source: Primary data

Using Mann-Whitney U-test, we have the following results: The p-values are summarized in the matrix below;

Table 3.2 Consolidated "p" values of KNOWLEDGE SHARING CULTURE FACTORS

Code		HoDP		AssoP		AsstP		PG T		S R		J R	
		KSC3	KSC4	KSC3	KSC4	KSC3	KSC4	KSC3	KSC4	KSC3	KSC4	KSC3	KSC4
HoDP	KSC3	...	...								
	KSC4	...	...								
AssoP	KSC3	0.0875	0.0423	...	...						
	KSC4	0.0754	0.0391	...	...						
AsstP	KSC3	0.0453	0.0088	0.0666	0.0620	...	...				
	KSC4	0.0079	0.0403	0.0494	0.0992	...	...				
Pg T	KSC3	0.0237	0.0807	0.0436	0.0162	0.0748	0.0863	...	...		
	KSC4	0.0218	0.0556	0.0539	0.0232	0.0018	0.0934	...	...		
S R	KSC3	0.0698	0.0233	0.0301	0.0644	0.0149	0.0283	0.0852	0.0886	...	...
	KSC4	0.0960	0.0274	0.0003	0.0229	0.0107	0.0059	0.0193	0.0960	...	...
J R	KSC3	0.0833	0.0586	0.0638	0.0053	0.0036	0.0801	0.0652	0.0810	0.0752	0.0212	...	...
	KSC4	0.0724	0.0130	0.0016	0.0148	0.0830	0.0241	0.0740	0.0932	0.0237	0.0656	...	...

Source: Primary data

Using Mann-Whitney U-test, we have the following results: The p-values are summarized in the matrix below;

Table 3.3 Consolidated "p" values of KNOWLEDGE SHARING CULTURE FACTORS

Code		HoDP		AssoP		AsstP		PG T		S R		J R	
		KSC5	KSC6	KSC5	KSC6	KSC5	KSC6	KSC5	KSC6	KSC5	KSC6	KSC5	KSC6
HoDP	KSC5	...	...								
	KSC6	...	...								
AssoP	KSC5	0.0179	0.0586	...	...						
	KSC6	0.0399	0.0346	...	...						
AsstP	KSC5	0.0323	0.0924	0.0352	0.0066	...	...				
	KSC6	0.0668	0.0292	0.0298	0.0709	...	...				
PG T	KSC5	0.0998	0.0368	0.0807	0.0884	0.0845	0.0580	...	...		
	KSC6	0.0698	0.0305	0.0243	0.0580	0.0474	0.0896	...	...		
S R	KSC5	0.0416	0.0814	0.0303	0.0450	0.0374	0.0174	0.0206	0.0159	...	...
	KSC6	0.0399	0.0046	0.0703	0.0066	0.0387	0.0343	0.0957	0.0417	...	...
J R	KSC5	0.0276	0.0382	0.0616	0.0353	0.0954	0.0514	0.0217	0.0481	0.0164	0.0188	...	...
	KSC6	0.0182	0.0579	0.0336	0.0341	0.0968	0.0627	0.0416	0.0845	0.0962	0.0672	...	...

Source: Primary data

5. CONCLUSION

Previous studies indicated that there were mix results on the relationship between demographic factors and knowledge sharing. The initial assumption of the study was that demographic variables would have a significant association with knowledge sharing quality among medical practitioners of the organisation. However, the results showed otherwise. The results indicated that demographic factors (gender, age, level of education, job position and tenure of service) have no significant impact on knowledge sharing quality except workplace. This result shows knowledge sharing quality among employees does not influence by demographic factors. This study concludes that demographic factors have no significant impact on knowledge sharing quality among medical practitioners in medical colleges in Bangalore. There were a few shortcomings in this study due to time and availability of medical professionals. The main weakness of this study is that the sample size is small. The interpretation cannot be generalised to all the colleges. The comparative study should also be undertaken to see the difference of knowledge sharing quality between medical practitioners as teaching faculty and only practitioners of private hospitals.

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