



“A CROSS-SECTIONAL QUESTIONNAIRE SURVEY TO EVALUATE THE FACTORS AFFECTING THE USE OF DIGITAL PAYMENT SYSTEM AMONG THE HEALTHCARE PROFESSIONALS IN VADODARA”

Management

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ABSTRACT

Background: Ever since the introduction of e-payments in India, the banking sector has witnessed growth like never before. The objective of the study was to check the level of knowledge, awareness and extent of practice among the healthcare professionals regarding digital payment system.

Methodology: It is a cross sectional study with 300 healthcare professionals. The data is collected through a structured close ended questionnaire.

Findings: There is difference between the knowledge scores among the healthcare professionals. There is association with specialty of the professionals and their awareness level. There is no difference in the practice among the healthcare professionals.

Conclusion: The study shows that the healthcare professionals are the most appropriate professionals for increasing the use of digital payments in our country. The use of digital payments by the healthcare professionals can be percolated through their professional bodies and patients who visit them.

KEYWORDS

factors, digital payment, Healthcare Professionals

Background

The Reserve Bank of India is doing its best to encourage alternative methods of payments which will bring security and efficiency to the payments system and make the whole process easier for banks. Ever since the introduction of e-payments in India, the banking sector has witnessed growth like never before. The RBI growing efforts to make Indian economy less cash economy is playing a pivotal role in this regard.

Indian healthcare system is the most contributing sector in the growth of our economy. The healthcare professionals have a significant role to play as they, if successfully implement the particulars of digital payment in their setup which could be private clinic, hospitals, nursing homes etc. The traditional modes of e-payments have existed like credit card, debit cards, NEFT etc. but with the advent of the recently introduced and encouraged systems by the government like digital wallets, UPI and USSD based mechanisms the convenience is on both the sides. The use of these systems among the private healthcare professionals will help in making their earnings accountable and lead to more transparency in the system. The patients can also keep a track of their spending on the health aspects.

Understanding the current level of knowledge, awareness and practice towards digital payment will help in an in-depth consideration of the factors influencing the use of digital payment among the healthcare professionals.

Objectives:

- To analyze the level of knowledge, awareness and use of digital payment mechanism among the healthcare professionals.

METHODOLOGY

The knowledge, awareness and practice of study area was analyzed through close ended structured questionnaire which comprised of 4 parts: Socio-demographic data, knowledge, awareness and practice of digital payment mechanisms

The knowledge assessment of healthcare professional's comprised of 13 questions where every right answer 1 mark was given to the respondents. The respondents were evaluated and classified based on the following criteria:

- 100%: outstanding, >85%: Excellent, 70 -85% good, 55-70%average and <55% poor

The awareness was checked by using the close ended questionnaires with response in the category of yes or no.

The practice related to digital payment was checked using the 4 point likert scale: never, rarely, sometimes and frequently.

Sampling Description: The population of the study was the healthcare professionals from Medical, Dental, and Physiotherapy, who are practicing and residing in Vadodara. Proportionate stratified sampling was used to assess the actual sample size. The maximum sample size which can be achieved for each structure is derived from using following formula,

Sample size= $N/(1+N_e^2)$

Where, Population Size = N | Margin of error = e = 0.05 at 95% confidence level

The formula used for dividing the sample proportionately according to the representation of the specialties in the population was:

$$\frac{\text{Total Number of specific specialties doctors}}{\text{Total number of doctors (Medical, Dental, Physiotherapy)}} \times 100$$

The questionnaire tool was content validated by the experts and a pilot study on the professionals of Sumandeep Vidyapeeth was carried out to check the reliability. The cronbach's alpha value came to be 0.86 making the study fit to be carried out at the city level.

The data collected were entered into MS excel and analysis was carried out using SPSS version 21.

RESULTS

The study had 88% of the sample from the medical professionals in various specialty and 6% were from dental and physiotherapy respectively.

Table 1 shows the mean knowledge score of the healthcare professionals

PARTICULARS	SPECIALTY	N	MEAN	STD. DEVIATION
Knowledge Score	Dental	18	10.7222	1.12749
	Medical	264	9.5417	1.93776
	Physiotherapy	18	8.8889	2.16629

The table shows that the physiotherapy professionals scoring less than 62% and have an average knowledge regarding the digital transaction mechanisms while medical professionals scored 76% falling in the good knowledge category and the dental professionals scored 86% showing excellent knowledge towards the digital payment

mechanisms.

Table 2 shows the ANOVA output where the difference in the knowledge scores among the three categories of healthcare professionals practicing in Vadodara

Knowledge Score					
PARTICULARS	SUM OF SQUARES	DF	MEAN SQUARE	F	P Value
Between Groups	32.456	2	16.228	4.426	.013
Within Groups	1088.931	297	3.666		
Total	1121.387	299			

The ANOVA output shows that there is significant difference in the knowledge score among the three specialties. The tukey's post hoc test in this regard was carried out to overview the mean difference in the knowledge score among the groups.

Multiple Comparisons					
(I) SPECIALTY	(J) SPECIALTY	MEAN DIFFERENCE (I-J)	P value	95% CONFIDENCE INTERVAL	
				LOWER BOUND	UPPER BOUND
Dental	Medical	1.18056 [*]	.032	.0818	2.2793
	Physiotherapy	1.83333 [*]	.012	.3299	3.3368
Medical	Dental	-1.18056 [*]	.032	-2.2793	-.0818
	Physiotherapy	.65278	.342	-.4460	1.7515
Physiotherapy	Dental	-1.83333 [*]	.012	-3.3368	-.3299
	Medical	-.65278	.342	-1.7515	.4460

The post hoc test shows the statistically significant difference is present between dental and physiotherapy with the mean difference of -1.833 having p value 0.012.

Table 3 shows the frequency distribution among the healthcare professionals towards the digital transaction mechanisms and the chi square association with the three specialties.

Statement	Dental		Medical		Physiotherapy		Chi-Square (p value)
	No	Yes	No	Yes	No	Yes	
ARE YOU AWARE ABOUT DIGITAL / ONLINE TRANSACTIONS?	00	18	00	264	00	18	NA
ARE YOU AWARE ABOUT TRANSACTION THROUGH CREDIT / DEBIT CARDS	0	18	7	257	1	17	1.072(0.52)
DO YOU NEED AN AUTHORIZATION FOR INTERNET BANKING FOR YOUR ACCOUNT	0	18	55	209	1	17	6.986(0.30)
AWARE ABOUT TRANSACTION THROUGH UNIFIED PAYMENT INTERFACE BASED PAYMENT MECHANISMS	0	18	94	170	5	13	9.899(0.000)

AWARE ABOUT TRANSACTION THROUGH UNSTRUCTURED SUPPLEMENTARY SERVICE DATA (USSD) *99# FACILITY BASED PAYMENT MECHANISMS	0	18	109	155	8	10	12.313(0.002)
ARE YOU AWARE ABOUT THE DIGITAL PAYMENT MECHANISM USING AADHAR CARD WITH BIOMETRIC AUTHENTICATION	0	18	159	105	10	8	24.853(0.000)

The table shows that the dental professionals are 100% aware about the traditional and recently introduced digital transaction mechanisms. The awareness related with the digital payment mechanisms is significantly associated with the specialty of the healthcare professional as the p value was found to be significant for awareness related to UPI, USSD and Aadhaar linked biometric authentication systems.

Table 4 shows the frequency of use of digital payment mechanisms by the healthcare professionals in their lives and the difference in the practice

Use of digital transaction in	Specialty	FREQUENTLY	SOMETIMES	RARELY	NEVER	Chi-Sq (p value)
ONLINE SHOPPING	Dental	12	4	2	0	15.330(0.00)
	Medical	114	139	10	1	
	Physiotherapy	9	8	0	1	
PAYMENT OF BILLS	Dental	11	5	2	0	6.660(0.00)
	Medical	124	112	24	4	
	Physiotherapy	12	4	1	1	
PAYMENT OF TAXES & FEES	Dental	10	4	3	1	36.371(0.000)
	Medical	25	43	107	89	
	Physiotherapy	4	3	7	4	
INVESTMENT IN COMMODITIES	Dental	11	3	2	2	51.871(0.000)
	Medical	21	27	32	184	
	Physiotherapy	4	2	3	9	
INSURANCE PREMIUM	Dental	11	2	4	1	58.913(0.000)
	Medical	23	42	93	106	
	Physiotherapy	5	8	1	4	
BOOKING OF TRAVEL TICKETS & HOLIDAY TOURS	Dental	16	2	0	0	48.628(0.000)
	Medical	60	102	82	20	
	Physiotherapy	11	5	2	0	
BOOKING OF MOVIE TICKETS / ENTERTAINMENTS	Dental	17	1	0	0	49.363(0.000)
	Medical	63	125	59	17	
	Physiotherapy	11	6	1	0	

RESTAURANT / HOTEL BILL PAYMENTS	Dental	17	1	0	0	60.571 (0.000)
	Medical	48	143	60	13	
	Physiotherapy	6	12	0	0	
PURCHASE OF DAILY UTILITIES FROM RETAIL OUTLETS	Dental	17	0	1	0	83.275 (0.000)
	Medical	33	106	65	60	
	Physiotherapy	6	10	2	0	
PURCHASE OF ELECTRONIC ITEMS, FURNITURE, VEHICLE AND OTHER ASSETS	Dental	17	1	0	0	71.067 (0.000)
	Medical	37	26	23	178	
	Physiotherapy	6	2	1	9	
PAYMENT OF CREDIT CARD AND RECHARGING MOBILE WALLETS	Dental	17	0	1	0	63.262 (0.000)
	Medical	57	36	32	137	
	Physiotherapy	13	2	2	1	
FUEL FILLING	Dental	17	1	0	0	23.577 (0.000)
	Medical	108	127	17	11	
	Physiotherapy	12	4	1	1	
MEDICAL BILLING	Dental	17	1	0	0	51.257 (0.000)
	Medical	61	30	60	112	
	Physiotherapy	11	2	2	3	

The above table shows that almost all the respondents are using the digital payment mechanisms in different areas in personal lives. The Kruskal Wallis test shows that the significant difference exists between the uses of digital transaction mechanisms for all the aspects like shopping, payment of premium, investment in commodities, fuel filling etc. Majority of the medical professionals are not at all using the digital transactions for billing, credit card payment, and purchase of high value items, insurance premium and investment in commodities. The dental and physiotherapy professionals are more frequently using the digital mechanisms for various personal uses as compared to the medical professionals.

CONCLUSION

The use of digital mechanisms of payment has become an integral part of the society. These systems should be promoted by the healthcare professionals themselves as they serve as the common factor between both the ways of the society. The study focused on the knowledge, awareness and the practice of the use of digital transaction mechanisms by the healthcare professionals which have in turn helped in understanding that for, we, as a society to promote, less cash economy is the need of the hour. The government should prioritize the awareness of the payment mechanisms launched by it through various advertisements, awareness campaigns and seminars. This will help in removing the hesitation of the practitioners towards adapting the government launched digital payment mechanisms. The understanding of the importance of digitization of payment will encourage the practitioners towards following the same which will in turn help in making the majority of the unaccounted income that is earned by the private practitioners. This will help in longer run to create a national disease database and open the doors for private public partnership, eventually strengthening the health sector of the country.

REFERENCES

1. Sohaib U Z, Akhter S (2017). "An investigation into the prime issues impeding the adoption of internet banking in pakistani firms/organizations." Journal of internet banking and commerce.pg 1-12.
2. Nagarajan, K. (2016). India's demonetisation. Publish online, 1.
3. Rathore, Shweta H. (2016) "Adoption of digital wallet by consumers." Journal of management Research.Pg 69-75.
4. Askarian M. (2011). Precautions for Health Care Workers to avoid cash payments from the patients. IJOEM. 2(4): 191-8.