

DETERMINANTS OF CO-CREATIVE BEHAVIOUR OF PATIENTS: A CASE STUDY IN JAMMU

Jyoti Sharma*, Lata Raj**, Anil Gupta***

Abstract: *Purpose:* The purpose of this study is to measure the existence of co-creation behaviour between doctors and patients. The research also studies customer participation and customer citizenship behaviour as the dimensions of co-creative behaviour and tries to establish the relationship between co-creative behaviour and satisfaction.

Design: This study uses Yi and Gong (2013) scale for collecting data regarding co-creation behaviour and its dimensions which are customer participation (CP) and customer citizenship behaviour (CCB). The data was collected from 204 patients who were suffering from various chronic/lifestyle diseases and getting their treatment from private clinics in Jammu city. The study uses 7-point Likert scale in the questionnaire ranging from 1 “completely disagree” through 7 “completely agree”, with a midpoint labeled 4 “neither agree nor disagree”.

Findings: The analysis of paper reflects that co-creation behaviour is prevalent among the patients and not only participation but the citizenship behaviour also affects the co-creation behaviour of patients.

Limitations and Implication: The study is conducted from patient's point of view whereas doctor's perspective should also be used in future research. The research area is restricted to Jammu city only. The research provides several implications-doctors can also use this scale for market segmentation and customer profiling for maximising customer value co-creation behaviour by gaining the useful information

Keywords: Co-creation, Customer Participation, Citizenship Behaviour, Customer Satisfaction, Service Dominant Logic

INTRODUCTION

The basic premise of S-D Logic has been that all providers are service providers and it is the service which is the basis of exchange. The extant literature on S-D Logic lays emphasis on customer being the co-creator of value (Vargo & Lusch, 2004). In this context, Prahalad and Ramaswamy (2000) stated that “customers are fundamentally changing the dynamics of market place”. Prahalad and Ramaswamy (2004) also argue that “we are on the cusp of a profound shift in the way value is created – from a firm-centric process to a co-creation process jointly by the customer and the company.” According to them, the way value emerges depends upon the interactions between the company and the customer for it is the co-creation process that leads to value generation. The involvement of customer as co-creator in new service innovation is increasingly being suggested as a successful strategy to improve the success rate of new services. Co-creation has become a widely used term to describe a shift in thinking from the organisation as a definer of value to a more participative process where people and organisations together generate and develop meaning (Ind & Coates, 2013).

Previous researches on co-creation behaviour of customer suggest that customer played a passive role in the development of new services (Nambisan, 2002), rather than being active participants in value creating process (Vargo & Lusch, 2008). Witell, Kristensson, Gustafsson, & Lofgren (2011) in their study suggested that in service development customer co-creation is a powerful mechanism. Infact, engagement provided by the Internet and the growing acceptance of the importance of the consumer as a value creator have spurred the growth in co-creation. The role of the customer in new service dominant market has changed from isolated to connected, from unaware to aware, from passive to active. Informed, networked, empowered, and active consumers are increasingly co-creating value with the firm. The involvement of customer as co-creator in new service innovation is increasingly being suggested as a successful strategy to improve the success rate of new services. In the present globalised, competitive and ever-changing business environment, maintaining the customer has never been more difficult and at the same time imperative. Under such conditions, the firms actively seek cooperation and participation from customers in the pursuit of mutual benefit and value. The co-creation concept can be divided

* Assistant Professor, Kathua Campus Jammu University, Jammu & Kashmir, India. Email: reachedjyoti@yahoo.co.in

** Scholar Jammu University, Jammu, Jammu & Kashmir, India. Email: latikaraj42@gmail.com

*** Assistant Professor, The Business School, Jammu University, Jammu & Kashmir, India. Email: anil1975@yahoo.com

into co-creation for use and co-creation for others which is differing in their orientation (Humphreys & Grayson, 2008). Co-creation for use is a process which is performed by customer for his or her benefit while on the other hand co-creation for others is the process in which the customer is oriented towards other customers; he helps in improving services in service development process for other customers (Witell *et al.*, 2011). According to Matthing, Sanden, and Edvardsson (2004) there is a limited number of studies in service development which focuses on customer co-creation of product and service innovation. The main attention of managers should be the customers because it is the customer who creates the whole market and by achieving their satisfaction and loyalty one can achieve the market value of the firm (Abbasi, Safarnia, Baradaran, & Abbasi, 2011).

Indian healthcare sector though poised for growth in the next decade, is still plagued by various issues and challenges. Urban India is now on the threshold of becoming the disease capital of the world and is facing an increased incidence of lifestyle related diseases such as cardiovascular diseases, diabetes, cancer, chronic obstructive pulmonary disease (COPD) etc. This represents a serious challenge that the Indian healthcare system needs to address and calls for health reform. Many researches on healthcare show that role of patient passive to active which increase the interest of many researchers in patient co-creation behaviour (Badcott, 2005). Positive attitude of patient towards their treatment is a motivator for use of co-creation in healthcare sector (Martin, Williams, Haskard, & Dimatteo, 2005). Bitner, Faranda, Hubbert, and Zeithaml (1997) describe that in healthcare, the patient assumes different roles and acts both as contributor and producer of services as it is the patient who experiences full course of health problem. It is thus co-creation process that leads to value creation. Co-creation helps in reducing the health cost, improves the healthcare outcomes, and increases the loyalty and satisfaction of patients towards the doctor (Ouschan, Jillian, & Lester, 2006). In this regard, Ennew and Binks (1999) state that in healthcare if essential information is not provided to healthcare professionals, they will not be able to meet the particular patient needs and are not in position to provide satisfactory service to their patient which results in low quality of co-creation behaviour. According to Yi and Gong (2013), co-creation behaviour comprises two dimensions - customer participation (CP) and customer citizenship behaviour (CCB). They further segregate CP and CCB into four elements respectively. The customer participation behaviour includes four elements: information seeking, information sharing, responsible behaviour, and personal interaction, whereas the customer citizenship behaviour includes feedback, advocacy, helping, and tolerance. The study defines co-creation behaviour and the various dimensions that stimulate co-creation behaviour. It measures the co-creation behaviour of patients in health sector, highlights the importance of patients in health sector

and investigates the readiness of Indian patients towards co-creation. The purpose of this study is to measure the existence of co-creation behaviour between doctors and patients and study customer participation and customer citizenship behaviour as the dimensions of co-creative behaviour and tries to establish a relationship between co-creative behaviour and satisfaction among the patients.

REVIEW OF LITERATURE

Customer Participation

Dabholkar (1990) defines customer participation as “the degree to which the consumer is involved in producing an offering” where consumer is the patient and offering is the service provided from doctor. Bendapudi and Leone (2003) suggest that customers who participate are more satisfied than those who do not participate because the outcome for satisfied customer is better than their expectation. Customer participation is an important aspect for co-creation because it is the customer who is fundamentally changing the whole process of marketing, since markets have become the place for customers in which they play an active role in generating value (Prahalad & Ramaswamy, 2000). Customer participation benefits both customer and service provider, it benefits the customer by providing improvement in service quality (Dabholkar, 1990) and benefits the provider by increasing the customer satisfaction and loyalty (Lovell & Young, 1979; Mills & Morris, 1986). The present study uses the four dimensions of customer participation as in the scale of Yi and Gong (2013).

Information seeking is behavioural dimension of customer participation; every customer is in search for information regarding the service provider and services i.e. from where he gets the best service. Customers can seek information from the service provider in a number of ways. For example, customers might directly ask another person for information or they can observe the behaviour of other customers to obtain information's (Kelley, Donnelly, & Skinner, 1990; Morrison, 1993). According to Kellogg, Youngdahl and Bowen (1997), information seeking is important for customer to satisfy their needs by elucidating their service requirements. According to Yi and Gong (2013) Information seeking is important for customers for two primary reasons. “First, information reduces doubts of the customer and thereby enables customers to understand and control their co-creation environment. Second, information seeking enables customers to master their role as value co-creators and become integrated into the value co-creation process.” As in case of health sector, many of the patients seek information regarding the doctor and from where they get the best treatment.

Information sharing is that behavioural dimension of

customer participation in which customer shares information or their expectation with the service provider so that the provider can perform their duty according to the customer requirements. According to Ennew and Binks (1999) sharing the information with employees ensures that the employees provide the service that meets the customers' particular needs. For example in health sector, if the patient provides all the necessary information regarding their health problem to the doctor, the doctor will be in a position to provide right treatment. However, if the patient fails to provide precise information regarding his problem, the quality of value co-creation (treatment) may be low. Thus information sharing is important for the achievement of co-creation value.

Responsible behaviour occurs when customer fully participate to perform their duty and know their responsibility towards the firm. According to Ennew and Binks (1999) responsible behaviour occurs when customers act as partial employees, and identify their duties as employees. For value co-creation in the service encounter customer need to be cooperative, observing rule and policies and accepting direction from employees (Bettencourt, 1997). Without customers responsible behaviour, little value co-creation occurs in the service encounter.

Personal interaction is also necessary for the success of value co-creation; it basically reflects relationship or communication or interaction between the customer and the provider. It is that behaviour of customer in which he directly interacts with the provider to discuss the problems. Kelley *et al.* (1990) use the term customers' functional quality to refer to the interaction between customers and service providers, which includes interactional aspects such as courteousness, friendliness, openness and respect. In health sector, if there is a personal interaction between the doctor and the patient, there exists a strong bond between them. Patients are more free and friendly to their doctor to discuss about their health problem.

Customer Citizenship Behaviour

Customer citizenship behaviour (CCB) means individual behaviours or voluntary behaviour that is beneficial to the organisation but not directly recognised by the formal reward system. The concept of OCB was introduced by Bateman and Organ in 1980s and later refined and strengthened by number of researchers such as Podsakoff and Mackenzie (1993), Jahangir, Mohammad, and Mahmudul (2004), Khalid and Ali (2005). Extra-role behaviour of customer citizenship behaviour from the customers of organisations has recently gathered the attention of researchers and managers (Abbas *et al.*, 2011; Bove, Pervan, Beatty, & Shiu, 2008; Yi and Gong, 2008). In organisations, employees are one of the important resources but in the present era, not only the employees but customers are also one of the

important resources of the organisation. Customer in many aspects act as employee, they indirectly or directly take part in many activities of the organisation (Halbesleben and Buckley, 2004). Groth (2005) defines customer citizenship behaviours "the voluntary behaviour which is not essential to successful production or to introduction of services but totally useful to the whole service organisation". Customer citizenship behaviour can be explained by the following terms: customer's voluntarily performance (Bailey, Gremler, & McCullough 2001; Bettencourt 1997), organisational citizen in customers' section (Lengnick-Hall, Claycomb, & Inks, 2000), lateral product of production process (Gruen, Summers, and Acito, 2000), and extra-role behaviours of customer (Aherene, Bhattacharya, & Gruen, 2005). As per the Yi and Gong (2013) the various elements of CCB are feedback, advocacy, helping, and tolerance.

Feedback is basically the comments or the reaction of the customers towards the service provided from the service provider. It comprises wanted, useful, and unwanted information that customers provide to the service provider, which helps them to improve the services (Groth, Mertens, & Murphy, 2004). Customer have the full experience with the services, and are able to give the suggestions to the firm, this suggestions or feedback is valuable for the service provider (Bettencourt, 1997). When patients give feedback to the doctors it leads to value treatment and care.

Advocacy to some extent is related to the encouragement or promotion of services or the firm. It refers to, suggest or counsel the service of the provider to other person or to advocate the business of the provider to your close ones like friends or family (Groth *et al.*, 2004). The customer increases or decreases the business of service provider by advocating about the service to other. If he is satisfied he spread positive word of mouth which indicates their loyalty towards the provider. For example, if doctor provides good service or better treatment to their patient and are also friendly, patients would spread positive word of mouth to other and also prefer the doctor for their personal problem, which ultimately increase the market share of the doctor.

Helping is basically voluntary action or behaviour of the person in which he assists or teaches the other person. In CCB, customer shows helping behaviour towards other customer rather than providers because customers understand the problem of other customer more easily than the service provider (Groth *et al.*, 2004). According to Rosenbaum and Massiah (2007) customer easily understand another customer problem, so he has more sympathy to other customer which shows their helping behaviour.

Tolerance refers to patience of a customer or their willingness to wait for the service provided by the provider. Lack of tolerance in customer and delay in services show the switching behaviour of customer, which damages the market

share and productivity of the firm (Keaveney, 1995). In the present era, customers are facing paucity of time and thus they switch to other firm if the service provider isn't able to meet their expectations. In health sector some patients show tolerance, which reflects their loyalty towards the doctor.

H1: Customer participation and customer citizenship behaviour are the dimensions of co-creative behaviour.

Satisfaction

According to Bendapudi and Leone (2003) the customer is satisfied only when the services meet the need of the participating customer. Ennew and Binks (1999) suggest that quality of services and satisfaction results from positive participation of customer which also affects the future purchase and quality of services. Customer satisfaction arises when customers compare their perception of a service performance with their expectations. It is a psychological concept arising from an individual's comparison of perceived product performance (Barsky 1992). If product performance does not match the expectation of customer, he is not satisfied. Thus to enhance customer satisfaction, co-creation has been devised as another strategy for improving the value of services. The interest in measuring customer satisfaction is reflected in its ability to build up customer loyalty. Thus, service provider's most important agenda is to keep customer satisfied which can be achieved through co-creation of services. Thus the second hypothesis is:

H2: Co-Creative Behaviour has a positive relationship with customer satisfaction.

RESEARCH METHODOLOGY

The present study examines the level of co-creation in health sector. The study is based on first hand data gathered from experienced and knowledgeable patients from Jammu city. After consulting the experts and perusing the relevant literature viz, Vargo and Lusch (2004), Lusch and Vargo (2006); Prahalad and Ramaswamy (2000, 2004), the study uses Yi and Gong (2013) scale for collecting data regarding co-creation behaviour. According to them the dimensions of co-creation behaviour are customer participation (CP) and customer citizenship behaviour (CCB). In the scale, customer participation consisted of four elements i.e., information seeking (4 items), information sharing (4 items), responsible behaviour (4 items) and personal interaction (5 items). Customer citizenship behaviour comprised feedback (3 items), advocacy (3 items), helping (4 items), and tolerance (3 items).

The study uses 7-point Likert scale in the questionnaire ranging from 1 "completely disagree" through 7 "completely agree", with a midpoint labeled 4 "neither agree nor

disagree". For measuring the extent of co-creation among patient in health care services, primary data have been gathered from patients residing as well as getting treatment in Jammu city. The data were collected from 204 patients who were suffering from various chronic /lifestyle diseases for example; diabetes, thyroid, cancer, cardiovascular diseases and getting their treatment from private clinics. Among the respondents, 52% are males and 48% are females and about 33.3 % of respondents lie in the age group between 40 to 50 years, while 20% lie between 50 to 60 years. 48% of the respondents are the graduates while 25% are post graduates and 20% are matriculates. The maximum respondents (37%) belong to service class while 17% have their own business. 47% of the respondents have 1 lakh to 5 lakh income per annum followed by 27% respondents who have income below 1 lakh . 25% respondents have income between 5 lakh to 10 lakh (Table 1).

For determining co-creation behaviour among patients in healthcare, data reduction technique of factor analysis has been used. This multivariate technique has been used in order to systematically arrange the data into small manageable sets. For the purpose of describing the underlying factor structure, 'the Eigen value-one criterion' has been used to determine the number of components to be extracted for further analysis (Stewart, 1981). After factor analysis cluster analysis also used for defining various clusters by using the factor scores these are the composite scores for each respondent on the derived factors.

The test of appropriateness of a factor analysis is KMO measure of sampling adequacy where high values (i.e. between 0.5 and 1.00) indicate its relevance for further analysis. The KMO values of CP and CCB were 0.739 and 0.705 (Table 2 and 3).

FINDINGS AND DISCUSSION

In order to study the co-creation behaviour, one of the interdependence technique was used i.e. factor analysis was conducted, in which the whole data is summarised and reduced. The factors which emerged after factor analysis are discussed as under-

Customer Participation

Studies on co-creation during consumption show that customer satisfaction with a firm differs depending on whether a customer is given the opportunity to participate in the production or not (Bendapudi & Leone, 2003).

Following four factors were extracted from CP:

1. **Responsible Behaviour (RB):** Out of the 4 variables of this factor the highest mean score was of, patients are following doctor's suggestion (6.00) as well as

lowest mean score was of 'expected behaviour' (5.33) (Table 2). The overall mean of this factor has been 5.68 which reflects that customers are satisfied with their responsible behaviour towards doctor for generating CP.

2. **Information Seeking (ISK):** This factor consisted of 4 variables, out of which "attention of patient towards other patient behaviour to use the service of the doctor" has highest mean score of 4.56 (Table 2). The mean score (4.30) reflects that patients before approaching the doctor may or may not seek information regarding the services offered by the doctor.
3. **Information Sharing (ISH):** This factor also consisted of 4 variables namely 'clearly explained the expectation', 'proper information about health problem', 'necessary information for performing doctor's duty', and 'answered all the service related questions'. The analysis reflected that 'necessary information provided to the doctor' has received highest mean score (6.29) and the responses of the patients with the service related questions also score the same mean scores (6.22), whereas patients have somewhat agreed to explain the doctors what they want from him (5.76) (Table 2).
4. **Personal Interaction (PI):** It was observed that out of 3 variables of this factor patient have highly agreed with the item that 'they were not rude to the doctor' (6.0) and have somewhat agreed with 'the courteous behaviour' of the patient (5.65), whereas they neither agree nor disagree towards 'friendly to the doctors' (4.90) (Table 2). This shows that patients are not so much friendly to the doctor but they are polite and courteous to the doctor. Earlier, the patients did not interact much with the doctor, but these days due to increased awareness regarding health services, patients have become demanding and thus interact with doctors so as to co- create value in terms of better treatment.

Customer Citizenship Behaviour (CCB)

Customer citizenship behaviour enables customers to communicate problems actively, to put up with or be patient with a service failure, and to willingly adapt to situations beyond their control, which keeps the firm running smoothly. The mean score of CCB by patient came out to be 5.01 (Table 3)

Following three factors were extracted by factor analysis from CCB.

1. **Helping (H):** Under this factor 'assisting other patients', 'teaching other patients' and 'advising other patients' have generated similar responses (5.10), (5.12), (5.11) respectively whereas patients are neither

agree nor disagree with 'helping other patients' (4.83) though they reflect high level of heterogeneity among the respondents (1.19) (Table 3).

2. **Advocacy (A):** Advocacy refers to word-of-mouth and it comprises of 3 variables viz., 'positive things about treatment', 'recommended doctor to others', 'encourage friends and relatives for this doctor'. The analysis shows the highest mean score (5.61) for 'the positive things of doctor treatment' whereas lowest score is (5.44) (Table 3) to 'encourage friends and relatives for this doctor' which depicts that many doctors have positive effect on their patient.
3. **Tolerance (T):** Out of 3 variables many patients were willing to put up with service failure of the doctor (4.61) while they were somewhat satisfied with mistake during service delivering (4.44) (Table 3), though having high disparity in their responses (1.34 and 1.51) respectively (Table 3).

From the above it is concluded that not only the participation but the citizenship behaviour also affect the satisfaction of patients.

Both hierarchical and non-hierarchical cluster analyses have been applied. In case of CP, 3 clusters emerged and CCB also has 3 clusters. The first factor score RB has the highest value in cluster 1 (0.118), ISK also has highest value in cluster 1 (0.68), whereas ISH has their highest value in cluster 2 (0.28) and PI has their highest value in cluster 1 (0.16) (Table 4). The maximum number of respondents lie in cluster 1 (107) whereas in CCB maximum number of respondents lie in cluster 2 (112). In case of CCB helping has their highest value in cluster 2 (0.14), advocacy has their highest value in cluster 3 (0.52), tolerance has their highest value in cluster 2 (0.62) (Table 5).

From the above it is concluded that not only the participation but the citizenship behaviour also affect the satisfaction of patients. Regression has also been applied to establish the relationship between co- creation behaviour and satisfaction level of the patients.

CONCLUSION

Co-creation is advocated as a mean to expand the innovation and value creation capability of the firm, while nurturing customer relationship and lowering cost for marketing and research and development (Sawhney, Verona, & Prandelli, 2005; Prandelli, Verona, & Raccagni, 2006). The benefits of co-creating value include better product quality (Fuller, Jawecki, & Muhlbacher, 2007), greater customer satisfaction (Nambisan & Baron, 2007) as well as reduced risk for the firm (Maklan, Knox, & Ryals, 2008) specifically in relation to the market entry of a new product or service

From the above deliberations it can be inferred that CP and

CCB contribute towards co-creation of value in health care thus resulting in the acceptance of hypothesis. Infact, it was observed that co-creation behaviour of patient depends upon patient’s participation as well as customer citizenship behaviour i.e. how participative the patients are in their interaction with the doctor and how well they exhibit the citizenship behaviour. The present study reflects that the co-creation behaviour among the patients is (5.21) which imply higher satisfaction due to co-creation of value. In fact, it reflects the readiness of the patients to co- create value. This is mainly due to high level of participative role played by the patients (5.42) (Table 2) in their treatment process and also the high level of citizenship behaviour (5.01) (Table 3) exhibited by them which makes patients-doctor interaction a worthwhile experience.

The study reflects that information sharing (6.11) plays an important role in ensuring patients participation followed by personal interaction (5.57) and responsible behaviour (5.68) (Table 2). However, information seeking (4.30) (Table 2) came out to be a weak factor as compared to others in patient participation which reflects that patients do not seek much information regarding the doctor’s professional capabilities and still are affected by the strong word of mouth.

Further, the study depicts a high level of citizenship behaviour exhibited by the patients which leads to creating value in treatment of health problem. The highest contributory factor in CCB has been advocacy (5.55) followed by helping (5.04) and tolerance (4.45) (Table 3). This reflects that patients are generally less tolerant towards the mistakes made by their doctors in their treatment. However, they are ready to put up with delays in service delivery though are not tolerant towards service failure. Majority of the patients still believe that “doctor knows the best” and are thus willing to put up with services if not delivered as expected.

The sole criterion of patients remains to get a possible cure of their health problem from the best doctors as per their information. But recently it has been observed that the experience of getting the treatment is also playing an important role in the mind of the patients while evaluating the services offered by the doctors. Patients tend to evaluate pre and post treatment care offered by the doctors before committing themselves to the treatment. The result of regression reflects that co-creative behaviour has a positive relationship with customer satisfaction which leads to accepting of the second hypothesis.

Table 1: Demographic Profile

	Frequency	Percentage
Gender	204	
Male	106	51.96
Female	98	48.03
Age		
Up to 40	58	28.43
40 to 50	68	33.33
50 to 60	40	19.60
Above 60	38	18.62
Qualification		
Matriculation	41	20.09
Graduate	99	48.52
Post graduate	51	25.00
Others	13	06.37
Occupation		
Service	76	37.25
Professional	34	16.66
Business	35	17.15
Others	59	28.92
Income per annum		
Up to 100000	56	27.45
100000-500000	96	47.05
500000-1000000	52	25.40
Above 1000000	0	

Table 2: Customer Participation (CP)

Factor	Variables	Mean	Standard deviation	Croanbach alpha
F1 (RB)	I performed all the tasks that are required.	5.59	1.03	
	I followed the Doctor's directives or suggestion.	6.00	.91	
	I fulfilled all responsibilities regarding to my treatment.	5.78	1.02	
	I adequately completed all the expected behaviours.	5.33	1.21	
Total		5.68		0.817
F2 (ISK)	I have searched for information on where the best Doctor could be found	4.30	1.31	
	I have searched for information on where this service is located	4.29	1.36	
	I have asked others for information on what service these Doctor offers	4.04	1.48	
	I have paid attention to how others behave to use service of this Doctor well	4.56	1.28	
Total		4.30		0.781
F3 (ISH)	I gave the Doctor proper information about health problem.	6.19	.91	
	I clearly explained what I wanted the Doctor to do.	5.76	1.22	
	I provided necessary information so that the Doctor could perform his or her duties.	6.29	1.12	
	I answered all the Doctor's service-related questions.	6.22	.92	
Total		6.11		0.745
F4 (PI)	I was polite to the Doctor.	5.88	.96	
	I was kind to the Doctor.	5.42	1.02	
	I was friendly to the Doctor.	4.90	1.41	
	I didn't act rudely to the Doctor.	6.05	.91	
	I was courteous to the Doctor	5.59	.88	
Total		5.57		0.671
KMO of CP	.739			
Total mean of CP		5.41		

Table 3: Customer Citizenship Behaviour (CCB)

Factor	Variables	Mean	Standard deviation	Croanbach alpha
F1 (H)	I assist other patients if they need my help.	5.10	1.10	
	I teach other patients to use the service correctly.	5.12	1.02	
	I help other patients if they seem to have problems.	4.83	1.19	
	I give advice to other patient.	5.11	1.13	
Total		5.04		0.798
F2 (A)	I said positive things about Doctor and his treatment to others.	5.61	1.01	
	I recommended the Doctor to others.	5.59	1.02	
	I encouraged friends and relatives to use the service of the Doctor.	5.44	1.13	
Total		5.55		0.791
F3 (T)	If the Doctor makes a mistake during service delivery, I would be willing to be patient.	4.44	1.37	
	If I have to wait longer than I normally expected to receive the service, I would be willing to adapt.	4.30	1.51	
	If service is not delivered as expected, I would be willing to put up with it.	4.61	1.34	
Total		4.45		0.705
KMO of CCB	0.705			
Total mean of CCB		5.01		

Table 4: Cluster analysis of CP

Table 4a: Final Cluster Centers

	Cluster		
	1	2	3
RB for analysis 2	.11815	-.00280	-.59184
ISH for analysis 2	.68811	-.96162	-.02596
ISK for analysis 2	.15884	.28910	-1.85559
PI for analysis 2	.16029	.14976	-1.35868

Table 4b: Distances between Final Cluster Centers

Cluster	1	2	3
1		1.659	2.716
2	1.659		2.846
3	2.716	2.846	

Table 4c: Number of Cases in each Cluster

Cluster	1	2	3
1	107.000		
2	76.000		
3	21.000		
Valid	204.000		
Missing	.000		

Table 5: Cluster analysis of CCB

Table 5a: Final Cluster Centers

	Cluster		
	1	2	3
HelpingH for analysis 1	-.24149	.14557	-.14910
Advocacy Afor analysis 1	-1.85900	.16666	.52166
ToleranceT for analysis 1	-.44152	.62937	-.90824

Table 5b: Distances between Final Cluster Centers

Cluster	1	2	3
1		2.324	2.428
2	2.324		1.605
3	2.428	1.605	

Table 5c: Number of Cases in each Cluster

Cluster	1	2	3
1	28.000		
2	112.000		
3	64.000		
Valid	204.000		
Missing	.000		

Table 6: Regression Analysis

Table 6a: Descriptive Statistics

	Mean	Std. Deviation	N
savgg	5.4124	.72361	204
coavg	5.2240	.54409	204

Table 6b: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.619 ^a	.383	.380	.56984	.383	125.335	1	202	.000

a. Predictors: (Constant), coavg

Table 6c: ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	40.699	1	40.699	125.335	.000 ^a
	Residual	65.594	202	.325		
	Total	106.293	203			

a. Predictors: (Constant), coavg

b. Dependent Variable: savg

Table 6d: Coefficients^a

Model	B	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		Std. Error	Beta			
1	(Constant)	1.113	.386		2.884	.004
	Coavg	.823	.074	.619	11.195	.000

a. Dependent Variable: savg

LIMITATIONS AND IMPLICATIONS

The study has certain limitations. This scope of the study is restricted to Jammu city while further work can be done with a broader sample size. The study focuses on value co-creation behaviour from the patient's point of view. However, value creation is a collaborative work between doctors and patients. Further research could examine value co-creation behaviour from the doctor's point of view. The study also suggests certain implications. Doctors can also use this scale for market segmentation and customer profiling for maximising customer value co-creation behaviour by gaining the useful information. Co-creation behaviour is also helpful in assessing and rewarding the performance of patients as they will be more willing to engage in value co-creation behaviour.

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