Mediating Effect of Quality Enhancement Between ICT-Related Factors and Student Satisfaction in Open and Distance Education

Pushkar Dubey, Arvind Tiwari, and Kailash Kumar Sahu

Abstract Embedding information and communication technology in distance learning is a major initiative and is playing an important role in the overall development of learners and their learning effectiveness. The present research investigated the mediating role of quality enhancement between ICT-related factors and student satisfaction in distance learning institutions in Chhattisgarh state. The data were collected from 400 participants who were teachers and staffs engaged in open and distance learning (ODL) in higher educational institution. Purposive sampling technique was used for collecting the data. Results indicated that quality enhancement was found to be significant as a mediating role between ICT-related constructs (i.e. ICT in administration, online admission, attitude of teacher/educator towards ICT application and value and ethics) and student satisfaction, whereas quality enhancement didn't mediate between quality of support services and ICT-empowered teaching-learning process and student satisfaction.

Keywords Information and communication technology (ICT) · Quality enhancement · Student satisfaction · Open and distance education

P. Dubey (✉) · K. K. Sahu
Department of Management, Pandit Sundarlal Sharma (Open) University Chhattisgarh, Bilaspur, India

A. Tiwari
Department of Computer Science, Dr. C. V. Raman University, Bilaspur, Chhattisgarh, India

1 Introduction

Information and communication technology (ICT) is proven as being one of the major factors in creating new global economy. It is one of the causes of the rapid changes in the society. ICT has a big impact on various sectors like agriculture, medicine, business, engineering and many others. It also has the capability to change the entire education and its processes to deliver knowledge to various learners.

The role and usage of information and communication technology (ICT) in enhancing the quality of student support services in open and distance education is, now, a proven fact. The open and distance education system has positively and quickly responded to become a part of ICT revolution. This happened due to three reasons: first, to reduce the cost involved in providing education; second, to introduce need-based educational programmes to a large number of learners; and third, to reduce the time factor in sanctioning new programmes by smoothening the administrative processes.

In this paper, authors examine the mediating role of quality enhancement between ICT-related factors and student satisfaction in open and distance education in Chhattisgarh state.

2 Literature Review

The increased usage of information and communication technology (ICT) in order to deliver education through improving quality of content provided to all the learners belonging to different rural and remote areas is currently benefiting by overcoming geographical barriers [1].

Furthermore, teachers are the backbone of education, and their attitude is essential in improving the educational quality through the usage of information and communication technology (ICT). In this process, faculty has to realise that e-teaching-related field expertise and specific skill are needed [2] and learning courses and materials must be designed in a way of benefitting the students the most [3]. Thus, institutions are required to put more attention in providing extensive training to the newly user of technologies in order to enhance their skills in the ICT-based teaching-learning process in open and distance learning environment [4].

Modern information and communication technology (ICT) provides numerous opportunities for effective support services such as proper communication. Virtual learning environment facilitates more improved communication which creates more student centred and flexible conditions for every learner in comparison to traditional classrooms [5]. Previous literatures revealed that better quality and quantity of communication can enhance the overall perception and satisfaction of students [6]. However, Allen, Mabry, Mattrey, Bourhis, Titsworth and Burrell [7] argued that there is no evidence available that the introduction of ICT in education increased the learners' effectiveness.

3   Operational Definition

Operational definitions of all the variables used in the study:

3.1   ICT in Administration

ICT-enabled administration assists in proper utilisation of human and material resources and their application in the right manner [8].

3.2   Online Admission

It is defined as web-based software designed to administer all admission-related processes of an institution [9].

3.3   Attitude of Teacher/Educator Towards ICT Application

It is a subjective or mental preparation for a certain action. Teachers' attitude towards ICT application means their perspective and interest towards its effectiveness and utilisation.

3.4   Value and Ethics

Value is termed in the study as the significance of ICT in overall education. ICT's technology-enhanced environment creates more stimulating and engaging conditions for learning than the traditional method.

3.5   Quality of Support Services

Support services are the number of facilities and services provided in order to create a better learning environment for students' learning [10].

3.6 ICT-Empowered Teaching-Learning Process

ICT-empowered teaching-learning process can be said as ICT-based professional training provided to teachers to improve the learning process aiming to develop advanced knowledge and skills [11].

3.7 Quality Enhancement

Quality enhancement is the process of improvement or augmentation. The term is basically for the enhancement of individual learners' ability, knowledge, attributes, skill and potential which is the improvement of an institution as well as the offered programme [12].

3.8 Student Satisfaction

Student satisfaction is referred to a short-term attitude experienced through a course of time spent in receiving educational services and facilities [13].

4 Research Objective

The objective of the present study is to examine the mediating effect of quality enhancement between ICT-related constructs (i.e. ICT in administration, online admission, attitude of teacher/educator towards ICT application, value and ethics, quality of support services and ICT-empowered teaching-learning process) and student satisfaction in open and distance learning institutions in the state of Chhattisgarh.

5 Methodology

The constituted population of the study includes the teaching and administrative staffs of different distance learning institutions in the state of Chhattisgarh. Data were collected from altogether 400 sample respondents (teaching and administrative staffs) across three different educational institutions engaged in delivering open and distance learning in the state of Chhattisgarh. Purposive sampling technique was used to draw sample from the given population. The data were collected during July to December 2019 in Chhattisgarh.
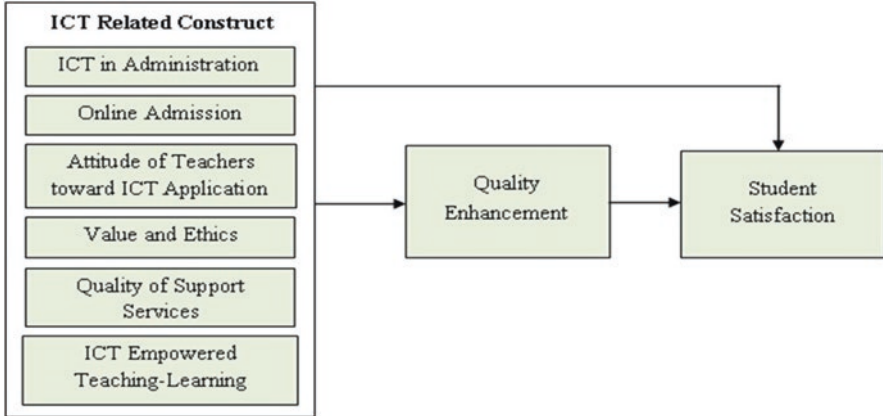
Fig. 1 Conceptual framework of the study

A self-structured questionnaire was formulated with eight different constructs, namely, ICT in administration (8 items $\alpha = 0.739$), online admission (3 items $\alpha = 0.751$), attitude of teachers towards ICT application (5 items $\alpha = 0.721$), value and ethics (3 items $\alpha = 0.71$), quality of support services (5 items $\alpha = 0.732$), ICT-empowered teaching-learning process (4 items $\alpha = 0.749$), quality enhancement (5 items $\alpha = 0.731$) and student satisfaction (3 items $\alpha = 0.745$).

The conceptual framework of the study is presented in Fig. 1. Altogether six different hypotheses were formulated to test whether quality enhancement mediates the relationship between ICT-related constructs and student satisfaction. To test the hypothesis, SPSS v25 software (licenced) was used to conduct regression analysis. In order to find the mediating effect of quality enhancement as a link between ICT related constructs and student satisfaction, 'process macro' in SPSS developed by Andrew Hayes was used [14].

5.1 Hypotheses

H1. Quality enhancement would positively mediate as a link between ICT in administration and student satisfaction.

H2. Quality enhancement would positively mediate as a link between online admission and student satisfaction.

H3. Quality enhancement would positively mediate as a link between attitude of teacher/educator towards ICT application and student satisfaction.

H4. Quality enhancement would positively mediate as a link between value and ethics and student satisfaction.

H5. Quality enhancement would positively mediate as a link between quality of support services and student satisfaction.

H6. Quality enhancement would positively mediate as a link between ICT-empowered teaching-learning process and student satisfaction.

6 Analysis and Result

6.1 Proposed Hypothesis 1

Model I proposes to find the mediating effect of quality enhancement as a link between ICT in administration and student satisfaction in open and distance education in Chhattisgarh as shown in Fig. 2 and Table 1.

Results indicated that ICT in administration was found as a significant indicator of quality enhancement, $\beta = 0.3559$, SE = 0.0368, $t = 9.66004$, $p < 0.05$, and that quality enhancement was found as a significant indicator of student satisfaction, $\beta = 0.1577$, SE = 0.0194, $t = 8.1195$, $p < 0.05$. The results supported the mediational hypothesis. After controlling the mediator, ICT in administration was found as a significant indicator of student satisfaction, $\beta = 0.1451$, SE = 0.0159, $t = 9.1477$, $p < 0.05$, and was also found consistent with partial mediation. The predictor noted approximately 39.99% of the variation in student satisfaction ($R^2 = 0.3999$). The percentile bootstrap estimation method was used for testing the indirect effect [15], as implemented with the 'process macro'. These outcomes showed the indirect coefficient was found to be significant, $\beta = 0.0561$, SE = 0.0296, CI = 0.0282–0.1384. Thus, ICT in administration is associated with student satisfaction and that it was partially mediated (0.0561) by quality enhancement.
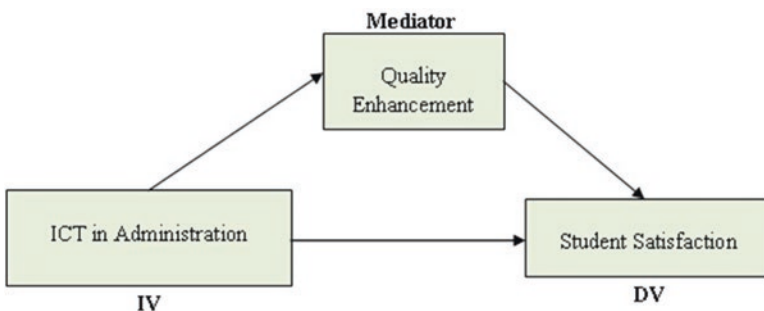
Fig. 2 Model I for Hypothesis 1

Table 1 Mediation table for Proposed Hypothesis 1

Quality enhancement						
Model summary						
R	*R*-sq	MSE	*F*	df1	df2	*p*
0.4358	0.1899	13.763	93.3229	1	398	0.0000
Model						
	Coeff	SE	*t*	*p*	LLCI	ULCI
Constant	9.0562	1.1357	7.9742	0.0000	6.8235	11.2889
ICT in administration	0.3559	0.0368	9.6604	0.0000	0.2835	0.4284
Student satisfaction						
Model summary						
R	*R*-sq	MSE	*F*	df1	df2	*p*
0.6324	0.3999	2.0654	132.3042	2	397	0.0000
Model						
	Coeff	SE	*t*	*p*	LLCI	ULCI
Constant	4.0718	0.4738	8.5941	0.0000	3.1403	5.0032
ICT in administration	0.1451	0.0159	9.1477	0.0000	0.1139	0.1762
Quality enhancement	0.1577	0.0194	8.1195	0.0000	0.1195	0.1958
Direct effect of ICT in administration on student satisfaction						
Effect	SE	*t*	*p*	LLCI	ULCI	
0.1451	0.0159	9.1477	0.0000	0.1139	0.1762	
Indirect effect of ICT in administration on student satisfaction						
	Effect	BootSE	BootLLCI	BootULCI		
Quality enhancement	0.0561	0.0296	0.0282	0.1384		
Level of confidence for all confidence intervals in output						
95						
Number of bootstrap samples for percentile bootstrap confidence intervals						
5000						

6.2 *Proposed Hypothesis 2*

Model II proposes to find the mediating effect of quality enhancement as a link between online admission and student satisfaction in open and distance education in Chhattisgarh as shown in Fig. 3 and Table 2.

Result indicated that online admission was found as a significant indicator of quality enhancement, $\beta = 0.6122$, SE = 0.0930, $t = 6.5812$, $p < 0.05$, and that quality enhancement was found as a significant indicator of student satisfaction, $\beta = 0.2101$, SE = 0.0199, $t = 10.5848$, $p < 0.05$. The result supports the mediational hypothesis. After controlling the mediator, online admission was found as a significant indicator of student satisfaction, $\beta = 0.1557$, SE = 0.0388, $t = 4.0128$, $p < 0.05$, and was also found consistent with partial mediation. The predictor noted approximately 30.18% of the variation in student satisfaction ($R^2 = 0.3018$). The percentile bootstrap estimation method was used for testing the indirect effect, as implemented with the 'process macro'. These outcomes showed the indirect coefficient was found to be
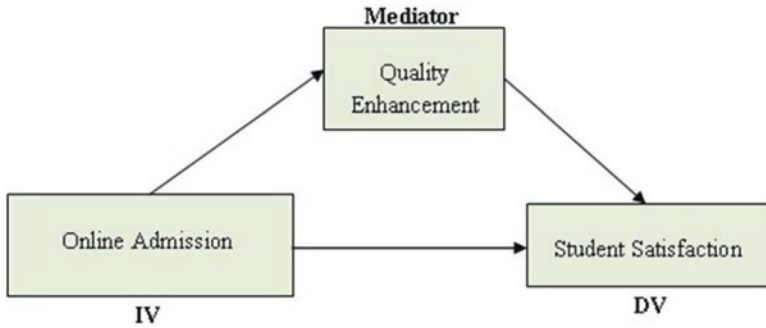
Fig. 3 Model II for Hypothesis 2

Table 2 Mediation table of Proposed Hypothesis 2

Quality enhancement						
Model summary						
R	*R*-sq	MSE	*F*	df1	df2	*p*
0.3133	0.0981	15.3230	43.3121	1	398	0.0000
Model						
	Coeff	SE	*t*	*p*	LLCI	ULCI
Constant	12.5198	1.1354	11.0272	0.0000	10.2878	14.7519
Online admission	0.6122	0.0930	6.5812	0.0000	0.4293	0.7951
Student satisfaction						
Model summary						
R	*R*-sq	MSE	*F*	df1	df2	*p*
0.5494	0.3018	2.4033	85.7972	2.0000	397	0.0000
Model						
	Coeff	SE	*t*	*p*	LLCI	ULCI
Constant	5.5688	0.5138	10.8395	0.0000	4.5588	6.5788
Online admission	0.1557	0.0388	4.0128	0.0001	0.0794	0.2319
Quality enhancement	0.2101	0.0199	10.5848	0.0000	0.1711	0.2491
Direct effect of online admission on student satisfaction						
Effect	SE	*t*	*p*	LLCI	ULCI	
0.1557	0.0388	4.0128	0.0001	0.0794	0.2319	
Indirect effect of online admission on student satisfaction						
	Effect	BootSE	BootLLCI	BootULCI		
Quality enhancement	0.1286	0.0616	0.0640	0.2977		
Level of confidence for all confidence intervals in output						
95						
Number of bootstrap samples for percentile bootstrap confidence intervals						
5000						

significant, $\beta = 0.1286$, SE $= 0.0616$, CI $= 0.0640$–0.2977. Thus, online admission is associated with student satisfaction and that it was partially mediated (0. 1286) by quality enhancement.

6.3 Proposed Hypothesis 3

Model III proposes to find the mediating effect of quality enhancement as a link between attitude of teacher/educator towards ICT application and student satisfaction in open and distance education in Chhattisgarh as shown in Fig. 4 and Table 3.

Result indicated that attitude of teacher/educator towards ICT application was found as a significant indicator of quality enhancement, $\beta = 0.1331$, SE $= 0.0494$, $t = 2.6977$, $p < 0.05$, and that quality enhancement was found as a significant indicator of student satisfaction, $\beta = 0.2231$, SE $= 0.0189$, $t = 11.8167$, $p < 0.05$. The results supported the mediational hypothesis. After controlling the mediator, attitude of teacher/educator towards ICT application was found as a significant indicator of student satisfaction, $\beta = 0.0886$, SE $= 0.0188$, $t = 4.7232$, $p < 0.05$, and was also found consistent with partial mediation. The predictor noted approximately 31.21% of the variation in student satisfaction ($R^2 = 0.3121$). The percentile bootstrap estimation method was used for testing the indirect effect, as implemented with the 'process macro'. These outcomes showed the indirect coefficient was found to be significant, $\beta = 0.0297$, SE $= 0.02$, 95% CI $= 0.0067$–0.0848. Thus, attitude of teacher/educator towards ICT application is associated with student satisfaction and that it was partially mediated (0.0297) by quality enhancement.
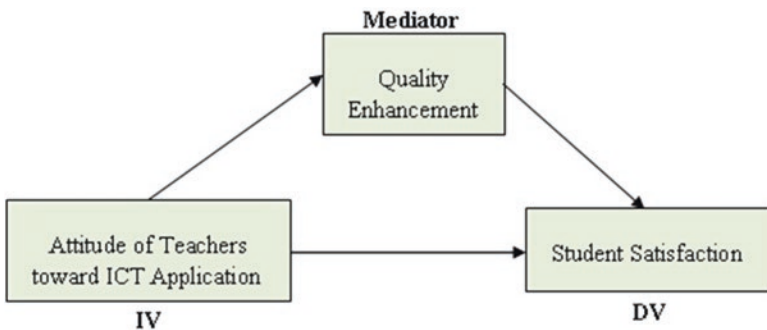

Fig. 4 Model III for Hypothesis 3

Table 3 Mediation table for Proposed Hypothesis 3

Quality enhancement						
Model summary						
R	*R*-sq	MSE	*F*	df1	df2	*p*
0.1340	0.0180	16.6855	7.2775	1	398	0.0073
Model						
	Coeff	SE	*t*	*p*	LLCI	ULCI
Constant	17.3447	0.9617	18.0346	0.0000	15.4540	19.2354
Attitude of teacher towards ICT application	0.1331	0.0494	2.6977	0.0000	0.0361	0.2302
Student satisfaction						
Model summary						
R	*R*-sq	MSE	*F*	df1	df2	*p*
0.5587	0.3121	2.3677	90.0684	2.0000	397	0.0000
Model						
	Coeff	SE	*t*	*p*	LLCI	ULCI
Constant	5.4944	0.4884	11.2504	0.0000	4.5343	6.4545
Attitude of teacher towards ICT application	0.0886	0.0188	4.7232	0.0000	0.0517	0.1255
Quality enhancement	0.2231	0.0189	11.8167	0.0000	0.1860	0.2602
Direct effect of attitude of teacher towards ICT application on student satisfaction						
Effect	SE	*t*	*p*	LLCI	ULCI	
0.0886	0.0188	4.7232	0.0000	0.0517	0.1255	
Indirect effect of attitude of teacher towards ICT application on student satisfaction						
	Effect	BootSE	BootLLCI	BootULCI		
Quality enhancement	0.0297	0.0200	0.0067	0.0848		
Level of confidence for all confidence intervals in output						
95						
Number of bootstrap samples for percentile bootstrap confidence intervals						
5000						

6.4   Proposed Hypothesis 4

Model IV proposes to find the mediating effect of quality enhancement as a link between value and ethics and student satisfaction in open and distance education in Chhattisgarh as shown in Fig. 5 and Table 4.

Results indicated that value and ethics was found as a significant indicator of quality enhancement, $\beta = 0.2367$, SE $= 0.0488$, $t = 4.8483$, $p < 0.05$, and that quality enhancement was found as a significant indicator of student satisfaction, $\beta = 0.2237$, SE $= 0.0196$, $t = 11.3895$, $p < 0.05$. The results supported the mediational hypothesis. After controlling the mediator, value and ethics was found as a significant indicator of student satisfaction, $\beta = 0.0482$, SE $= 0.0197$, $t = 2.4491$, $p < 0.05$, and was also found consistent with partial mediation. The predictor noted approximately 28.43% of the variation in student satisfaction ($R^2 = 0.2843$). The percentile
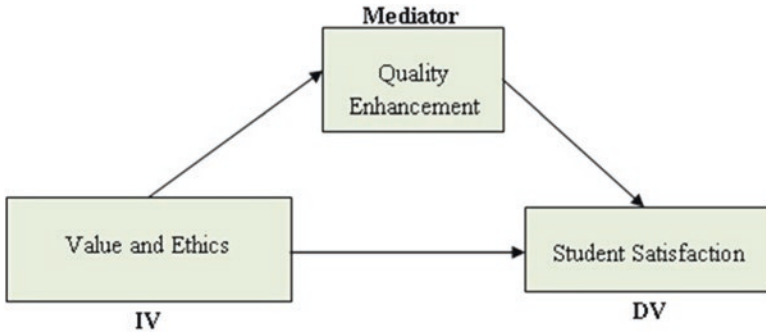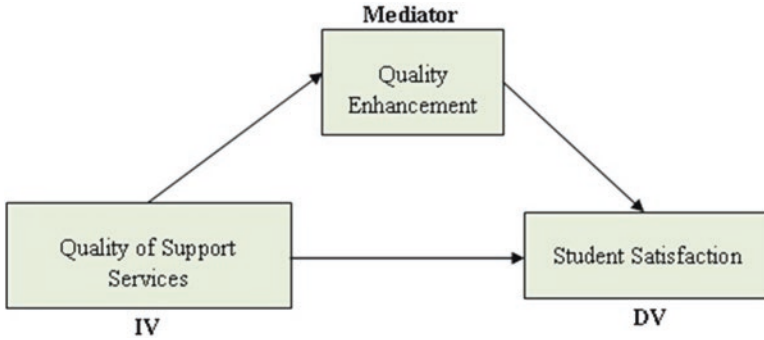
Fig. 5 Model IV for Hypothesis 4

Table 4 Mediation table for Proposed Hypothesis 4

Quality enhancement						
Model summary						
R	*R*-sq	MSE	*F*	df1	df2	*P*
0.2361	0.0558	16.0431	23.5058	1	398	0.0000
Model						
	Coeff	SE	*t*	*p*	LLCI	ULCI
Constant	17.0241	0.6222	27.3627	0.0000	15.8010	18.2473
Value and ethics	0.2367	0.0488	4.8483	0.0000	0.1407	0.3327
Student satisfaction						
Model summary						
R	*R*-sq	MSE	*F*	df1	df2	*P*
0.5332	0.2843	2.4635	78.8433	2.0000	397	0.0000
Model						
	Coeff	SE	*t*	*p*	LLCI	ULCI
Constant	6.5883	0.4138	15.9200	0.0000	5.7747	7.4018
Value and ethics	0.0482	0.0197	2.4491	0.0148	0.0095	0.0869
Quality enhancement	0.2237	0.0196	11.3895	0.0000	0.1851	0.2623
Direct effect of value and ethics on student satisfaction						
Effect	SE	*t*	*p*	LLCI	ULCI	
0.0482	0.0197	2.4491	0.0148	0.0095	0.0869	
Indirect effect of value and ethics on student satisfaction						
	Effect	BootSE	BootLLCI	BootULCI		
Quality enhancement	0.0530	0.0760	0.0224	0.3011		
Level of confidence for all confidence intervals in output						
95						
Number of bootstrap samples for percentile bootstrap confidence intervals						
5000						

bootstrap estimation method was used for testing the indirect effect, as implemented with the 'process macro'. These outcomes showed the indirect coefficient was

Fig. 6 Model V for Hypothesis 5

found to be significant, $\beta = 0.0530$, SE $= 0.0760$, CI $= 0.0224–0.3011$. Thus, value and ethics is associated with student satisfaction and that it was partially mediated (0.053) by quality enhancement.

6.5 *Proposed Hypothesis 5*

Model V proposes to find the mediating effect of quality enhancement as a link between quality of support services and student satisfaction in open and distance education in Chhattisgarh as shown in Fig. 6.

Table 5 explains that the direct effect of quality of support services on student satisfaction was not significant, $\beta = 0.1319$, SE $= 0.0226$, $t = 1.8378$, $p > 0.05$, and also there is no significant relation between quality enhancement and student satisfaction, $\beta = 0.1947$, SE $= 0.0197$, $t = 1.8776$, $p > 0.05$. Hence, quality enhancement does not mediate the relation between quality of support services and student satisfaction.
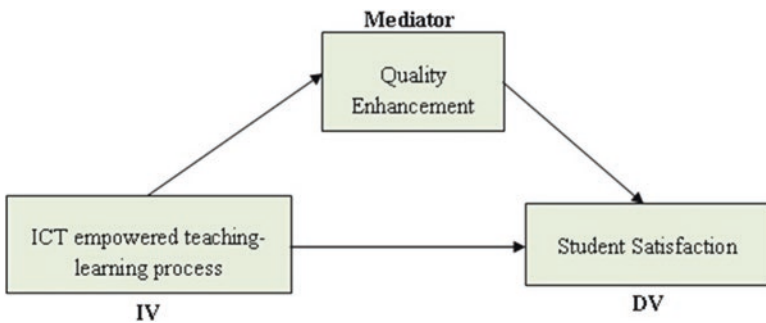
6.6 *Proposed Hypothesis 6*

Model VI proposes to find the mediating effect of quality enhancement as a link between ICT-empowered teaching-learning process and student satisfaction in open and distance education in Chhattisgarh as shown in Fig. 7.

Table 6 explains that there is no significant relation found between ICT-empowered teaching-learning process and quality enhancement, $\beta = 0.6182$, SE $= 0.0836$, $t = 1.5958$, $p > 0.05$, and also no significant connection is found between ICT-empowered teaching-learning process and student satisfaction, $\beta = 0.1596$, SE $= 0.0356$, $t = 1.4855$, $p > 0.05$. Hence, quality enhancement has no

Table 5 Mediation table for Proposed Hypothesis 5

Quality enhancement						
Model summary						
R	R-sq	MSE	F	df1	df2	p
0.3511	0.1233	14.8962	55.9575	1	398	0.0000
Model						
	Coeff	SE	t	P	LLCI	ULCI
Constant	12.2508	1.0380	11.8026	0.0000	10.2102	14.2914
Quality of support services	0.4025	0.0538	7.4805	0.0000	0.2968	0.5083
Student satisfaction						
Model summary						
R	R-sq	MSE	F	df1	df2	p
0.5752	0.3309	2.3030	98.1687	2.0000	397	0.0670
Model						
	Coeff	SE	t	p	LLCI	ULCI
Constant	5.2471	0.4742	7.0649	0.0670	4.3148	6.1793
Quality of support services	0.1319	0.0226	1.8378	0.0790	0.0875	0.1763
Quality enhancement	0.1947	0.0197	1.8776	0.0670	0.1559	0.2334
Direct effect of quality of support services on student satisfaction						
Effect	SE	t	p	LLCI	ULCI	
0.1319	0.0226	1.8378	0.0790	0.0875	0.1763	
Indirect effect of quality of support services on student satisfaction						
	Effect	BootSE	BootLLCI	BootULCI		
Quality enhancement	0.0784	0.0356	0.0413	0.1789		
Level of confidence for all confidence intervals in output						
95						
Number of bootstrap samples for percentile bootstrap confidence intervals						
5000						

Fig. 7 Model VI for Hypothesis 6

place to play a mediating role between ICT-empowered teaching-learning process and student satisfaction in Table 6.

Table 6 Mediation table for Proposed Hypothesis 6

Quality enhancement						
Model summary						
R	*R*-sq	MSE	*F*	df1	df2	*p*
0.3476	0.1208	14.9377	54.6977	1	398	0.0750
Model						
	Coeff	SE	*t*	*p*	LLCI	ULCI
Constant	9.4004	1.4301	2.5733	0.0750	6.5889	12.2118
ICT-empowered teaching-learning process	0.6182	0.0836	1.5958	0.0750	0.4539	0.7825
Student satisfaction						
Model summary						
R	*R*-sq	MSE	*F*	df1	df2	*p*
0.5554	0.3085	2.3801	88.5617	2.0000	397	0.0000
Model						
	Coeff	SE	*t*	*p*	LLCI	ULCI
Constant	4.8586	0.6010	8.0837	0.0000	3.6770	6.0402
ICT-empowered teaching-learning process	0.1596	0.0356	1.4855	0.0820	0.0897	0.2296
Quality enhancement	0.2039	0.0200	10.1896	0.0000	0.1645	0.2432
Direct effect of ICT-empowered teaching-learning process on student satisfaction						
Effect	SE	*t*	*p*	LLCI	ULCI	
0.1596	0.0356	1.4855	0.0820	0.0897	0.2296	
Indirect effect of ICT-empowered teaching-learning process on student satisfaction						
	Effect	BootSE	BootLLCI	BootULCI		
Quality enhancement	0.1260	0.0694	0.0588	0.3150		
Level of confidence for all confidence intervals in output						
95						
Number of bootstrap samples for percentile bootstrap confidence intervals						
5000						

7　Discussion

The result of the first hypothesis concluded that quality enhancement is found partially mediated between ICT in administration and student satisfaction, and the hypothesis is accepted. Thus, it can also be said that quality enhancement has created a positive relation with both ICT in administration and student satisfaction which explains that the more ICT in administrative functions, the more improved the institution would be and the more improved and enhanced the institution and its processes, the higher the satisfaction of students.

The result of the second hypothesis revealed that quality enhancement has significantly and partially mediated between online admission and student satisfaction, and the hypothesis is accepted. The results indicated that quality enhancement is significantly connected to both online admission and student satisfaction because

Table 7 Outcome of the proposed hypothesis of the study

Hypothesis	Statement	Result
H1	Quality enhancement would positively influence as a link between ICT in administration and student satisfaction	Accepted
H2	Quality enhancement would positively influence as a link between online admission and student satisfaction	Accepted
H3	Quality enhancement would positively influence as a link between attitude of teacher/educator towards ICT application and student satisfaction	Accepted
H4	Quality enhancement would positively influence as a link between value and ethics and student satisfaction	Accepted
H5	Quality enhancement would positively influence as a link between quality of support services and student satisfaction	Rejected
H6	Quality enhancement would positively influence as a link between ICT-empowered teaching-learning process and student satisfaction	Rejected

quality can be enhanced through inviting online applications for admission, and with that the students will be more motivated and satisfied by saving their cost, time and energy.

The result of the third hypothesis concluded that quality enhancement is found positive and significant mediation between attitude of teacher/educator towards ICT application and student satisfaction, and the hypothesis is accepted. The results indicated that quality enhancement is positively associated with both variables, i.e. attitude of teacher/educator towards ICT application and student satisfaction. Quality enhancement would increase by changing the attitude of teacher/educator towards using ICT application in their teaching process, and when the quality improves in the institution, the satisfaction among students would also increases.

The result of the fourth hypothesis reported that quality enhancement has significantly and partially mediated between value and ethics and student satisfaction, and the hypothesis is accepted. The results indicated that quality enhancement is positively related to both variables, i.e. value and ethics and student satisfaction. This means that value and ethics among stakeholders positively improves the quality in various functions of the institution and the enhanced quality creates satisfaction among students enrolled in open and distance education.

The result of the fifth hypothesis concluded that quality enhancement did not play a mediating role between quality of support services and student satisfaction, and the hypothesis is rejected, since there is no significant connection found between quality enhancement and student satisfaction and also no significant relation evidenced between quality of support services and student satisfaction. Thus, open and distance institutions are needed to improve their quality of support services in order to achieve quality enhancement which will further lead to students satisfaction.

The result of the sixth hypothesis concluded that quality enhancement did not create any significant mediation between ICT-empowered teaching-learning process and student satisfaction, and the hypothesis is rejected. This explains that open and distance institutions are still required to work on ICT-based teaching-learning

process which further leads to student satisfaction. However, in this study, quality enhancement does not play any significant mediation between ICT-empowered teaching-learning process and student satisfaction.

8 Conclusion

Information and communication technology (ICT) has become inevitable in the current world where the learners need to cope up with new innovations and knowledge. Open and distance education offers demand-based educational programmes to nation builders, i.e. students in which ICT plays a dominant role by improving the quality and effectiveness of learners. The current study is focused on examining the mediating role of quality enhancement between ICT-related factors and satisfaction of students enrolled in open and distance educational programmes in government and private universities in Chhattisgarh. This study highlighted the importance of ICT in the current education and also explains its relevance for the future challenges. Quality enhancement, in the regular basis, is utmost important in the current education system to increase the satisfaction and effectiveness among learners.

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