

## A Study on Use of ICT in Online Admission Process in Higher Educational Institutions in Chhattisgarh

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**Abstract**— The present study attempts to find the impact of issues related to online admission on satisfaction in higher educational institutions Bilaspur. A proposed model covering eight different dimensions namely student satisfaction, transparency and efficiency, information access, ease of use, safety and security, resource utilization and value for money was tested in the study. The participants were the enrolled students of first year group of higher educational institutions who were practicing online system of admission. With the help of 100 participants data were collected and analyzed. Structural equation modeling with the help of AMOS was done to find the result and model fit. The outcome revealed that student satisfaction, transparency and efficiency, information access, ease of use, resource utilization, safety and security and value for money directly and positively affected the students satisfaction. The proposed model was found to be a good fit.

**Keywords**— *Online admission, satisfaction, higher educational institutions, structural equation modeling.*

### I. INTRODUCTION

The digital mandate of Government of India has touched almost every sphere of operations across the country. May it be corporate houses, business entities, society or educational institutions; the degree of digitization has opened a new era for growth and development. Although the process is not new but its implementation is not that rapid. The process of change is nevertheless hard to adopt but once it comes into the system the outcome is beneficial. Every new system which requires the process of change has to undergo with some resistance. Resistance to change is the action taken by individuals and groups when they perceive that a change that is occurring as a threat to them. Resistance can take many forms, including active or passive, overt or covert, individual or organized, aggressive or timid. In recent time with the growth of Information and communication technology (ICT) higher educational institutions in India has been undergoing tremendous transformation in terms of e-governance and automation. It has inculcated operational efficiency and boosted decision making process (Singh, 2008[1]. The core idea is to bring transparency and to boost the level of performance by focusing on the timeliness. Admission process is one among those processes of higher educational institutions which by the help of ICT is becoming automated. In the traditional manual system of admission almost all of the work was done through human resource and with the help of physical documentation. With the adoption of online admission system the process has more or less gone virtual

with elimination of the physical documentation process. Moreover the medium and means of communication has become fast so that it can be quickly completed.

#### **Advantages of Online admission process**

Online admission system adopted by higher educational institutions has many advantages.

- a) Easy to search: Online admission gives easy access to search for information. All the admission data available in the internet and portal can be easily accessed to gain valuable information.
- b) Eliminates chaotic submission process: The hectic process of submission of form can be easily eliminated out because all the necessary data can be filled up and submitted at the click of a button.
- c) Convenience for the appliers: It provides flexibility in the form of convenience as a prospective student can fill up the form from the place and time of his choice.
- d) No need to run in queues: Online system of admission avoids making of queues for the purchase and submission of the admission forms.
- e) Transparent medium: It is a transparent medium of inviting application as all the information of admission is appropriately disclosed for the applicant before and after the form fill up.
- f) Flexibility in timings: It is free from the perspective of office timing and one can choose his or her own flexible or free time to apply online.

- g) Increase accuracy and efficiency: As all the required data and choices are system generated and machine operated, there is less chances of error and thus increases accuracy and efficiency in the process of admission.
- h) Quick access to student's record: Through online admission all the necessary information (including statistical comparison) can be easily and quickly accessed to facilitate decision making.
- i) Free from physical logistics: In online process of admission there is no requirement to take physical form of documents and thus becomes paperless process. This feature makes it free from storage of physical logistics for future use.
- j) Requires less manpower: It requires relatively less manpower than the traditional off line process of admission.
- k) Fits timeliness: Since the process is technologically driven and is related to automation, the needful process of generating merit list can be easily done with very less time and thus helps in fulfilling the timeliness.
- l) Free from geographical boundaries: Online admission applications are not limited to a particular institution or territory. Since the process is accessible through internet, it is free from delimitations of geographical boundaries.
- m) Avoids duplicity: Multiple submissions or cross data fill up in filling up the application form can be easily checked and therefore avoids duplicity in the admission process
- n) Eliminates monopoly and favoritism: It is free monopoly of educational institutions and discourages favoritism of individuals with future commitments of admission by higher educational institutions.
- o) Checks bribery: It discourages bribes and eliminates intermediaries in the process of admission.

#### Limitations of Online admission process

Online admission systems adopted by higher educational institutions are subjected to following limitations:

- a) Need internet as a medium for access: Online admission can only be accessed through the use of internet and thus it is limited by use of internet as a medium for access.
- b) Requires computer literacy: Individuals familiar with computer or computer literates can only use the online process of admission.
- c) Has issues related to personal disclosure of information: Since the data is lounged into a platform which is unknown to the user or applicant, it is subjected to personal disclosure of valuable information of the applicant.
- d) Subjected to security concerns:
- e) Lack of personal contacts:
- f) Absence of counselors:
- g) Limits employment opportunities:
- h) Needs infrastructural arrangements:

- i) **Authenticity:** In most manual admission processes, the eligibility of candidates is proved by verification of originals at the time of accepting applications, ensuring that only genuine candidates apply. Online applications make it easier for fraudsters to manipulate the application process and eligibility requirements.

## II. PROPOSED FRAMEWORK

Online admission process constitutes of numerous factors and the satisfaction of students lies in various factors influencing online admission process. Fig. 1 depicts various factors (i.e. transparency, information access, ease of use, safety, resource utilization and value of money) which are dependent on student's satisfaction in online admission process by the use of internet and communication technology. Here the former is the predicting variable and the latter is the criterion variable.

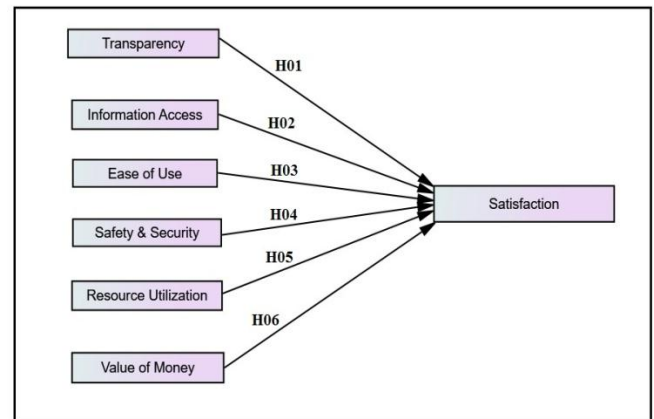


Figure 1. Proposed framework of the study

## III. OBJECTIVES AND HYPOTHESES OF STUDY

The paper aims to identify various factors governing the online admission process and its effect on the satisfaction of the students of higher educational institutions in the state of Chhattisgarh.

Following stated hypothesis (in declarative form) will be subjected to test in the study:

- H01: Transparency dimension of online admission process has direct effect on students satisfaction.
- H02: Information access dimension of online admission process has direct effect on students satisfaction.
- H03: Ease of use dimension of online admission process has direct effect on students satisfaction.
- H04: Safety and security dimension of online admission process has direct effect on students satisfaction.
- H05: Resource utilization dimension of online admission process has direct effect on students satisfaction.

H06: Value of money dimension of online admission process has direct effect on students satisfaction.

**IV. METHODOLOGY**

**Participants:** The enrolled students of first/previous year of two different Universities in Bilaspur district in the state of Chhattisgarh were the participants of the study. The participants were familiar with the online process of admission as they were through with the admission process.

**Sampling:** Purposive sampling was adopted in the study where only first year bachelor and master degree enrolled students of various discipline were considered for the study. Sample sizes of 100 participants were considered for the study.

**Tools for Data Collection:** A self structured questionnaire was administered for data collection. The measuring tool was constructed in order to cover all the required dimensions which is considered essential in the part of students during the process of admission.

**Statistical Tools used:** Regression analysis was used in the study for finding the effect of various independent variables on student’s satisfaction. Structural equation modeling was applied to determine the model fit in the data. Statistical package for social sciences (SPSS) and Analysis of moment structure (AMOS) licensed version 24.0 software was used to compute the data in the study.

**V. RESULT AND DISCUSSION**

*A. Reliability of the Instrument*

Initially a self structured questionnaire with 50 items covering broadly 9 different dimensions were considered for the study. Later after the pilot testing of the instruments and consultation with the experts related to admission a total of 37 items covering 7 dimensions was considered for the study. The value of Cronbach’s alpha for student satisfaction was 0.88, transparency and efficiency was 0.913, information access was 0.756, ease of use was 0.813, safety and security was 0.799, resource utilization was 0.744 and value for money was 0.736. The overall value of 37 items was found to be 0.855 which confirmed the internal consistency of the data.

*B. Data Analysis*

The effect of various dimensions considered for the study on the satisfaction of the students for online admission in higher educational institutions is determined in the analysis. Figure 1 represents the causal relationship between independent and dependent variable taken for the study. All the path coefficient are found to be significant at  $p < 0.05$  as indicated in table 1. which confirms the effect of independent variable on the dependent variable. Thus all the dimensions of the study viz. transparency, information access, ease of use, resource utilization, safety and security and value of money

was found to have significant positive relationship on student’s satisfaction Table 2 shows the standardized regression estimates of transparency, information access, ease of use, resource utilization, safety and security and value of money on students satisfaction. Transparency ( $\beta = 0.325, p = 0.000$ ) is found to exert strongest influence on satisfaction followed by safety and security ( $\beta = 0.228, p = 0.000$ ). Thereafter information access ( $\beta = 0.208, p = 0.000$ ) has strong positive influence on satisfaction followed by value of money ( $\beta = 0.175, p = 0.036$ ), ease of use ( $\beta = 0.157, p = 0.038$ ) and resource utilization ( $\beta = 0.145, p = 0.047$ ). Hence hypothesis H01, H02, H03, H04, H05 and H06 is well supported in the study.

Table 4 explicate the outcome of path analysis and decision on model goodness of fit. The model chi-square ( $\chi^2$ ) indicates a good model fit at  $p > 0.05$  and  $\chi^2/df$  value ranging between 1 and 3 (Kline, 2005)[2]., RMSEA is found to be a perfect fit with the value falling well below the threshold limit of 0.05 (Steiger, 2007)[3]. The GFI statistics is found to be greater than the upper limit of 0.90, indicating a good fit. Among the incremental fit indices CFI and NFI are observed to have greater value than the threshold limit (Hu & Bentler, 1999)[4]. Based on the acceptable fit indices in structural model, it can be said that the model is found to be a good fit and thus can be effectively used to explain the effect of transparency, information access, ease of use, resource utilization, safety and security and value of money on satisfaction of students towards online admission process.

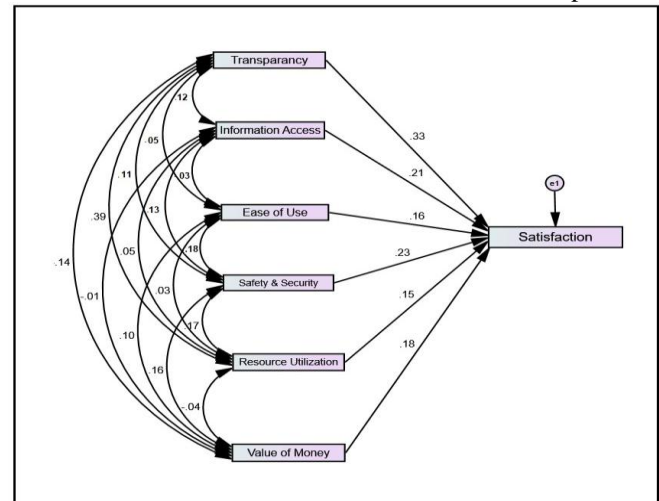


Figure 2 : Path Diagram (Transparency, information access, ease of use, safety and security, resource utilization and value for money on satisfaction)

Table 1: Unstandardized regression estimate and P value

		Estimate	S.E.	C.R.	P
Satisfaction	<-- Transparency	0.275	0.08	3.438	***
Satisfaction	<-- Information Access	0.128	0.05	2.56	***

Satisfaction	<--	Ease of Use	0.106	0.07	1.49	0.03
n	-			1	2	8
Satisfaction	<--	Safety and Security	0.297	0.13	2.14	***
n	-			9		
Satisfaction	<--	Resource Utilization	0.027	0.07	0.35	0.04
n	-			7		7
Satisfaction	<--	Value of Money	0.195	0.09	2.09	0.03
n	-			3	5	6

Table 2: Standardized Regression estimate and hypothesis testing result

			Estimate	Hypothesis
Satisfaction	<---	Transparency	0.325	Supported
Satisfaction	<---	Information Access	0.208	Supported
Satisfaction	<---	Ease of Use	0.157	Supported
Satisfaction	<---	Safety and Security	0.228	Supported
Satisfaction	<---	Resource Utilization	0.145	Supported
Satisfaction	<---	Value of Money	0.175	Supported

Table 3: Result of Path Analysis (Decision on model goodness of fit)

Indicates	Satisfactory levels	Obtained value
Absolute Indices		
$\chi^2$	$p > 0.05$ (Barrett, 2007) [5].	0.036
$\chi^2/df$	$< 3$ (Kline, 2005)[2].	2.54
RMSEA	$< 0.070$ (Steiger, 2007)[3].	0.064
GFI	$> 0.950$ (Miles & Shevlin, 1998)[6].	0.952
Comparative fit indices		
NFI	$> 0.950$ (Hu & Bentler, 1999)[4].	0.953
CFI	$> 0.950$ (Hu & Bentler, 1999)[4].	0.961
Decision- Good fit Model		

## VI. CONCLUSION

The purpose of the study to predict the effect of various dimensions related to online admission process on the satisfaction of the students in higher educational institutions in the state of Chhattisgarh. The result of this study confirms the existence of a positive relationship between transparency, information access, ease of use, resource utilization, safety and security, value of money and students satisfaction. Thus

it can be concluded that online admission process in higher educational institutions in the state of Chhattisgarh is influenced by various factors. From the administration point of view it is necessary to review and strengthen those factors which have strong and positive influence in the admission process which in turn can bring more satisfaction among the potential students of higher education in the state.

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## Authors Profile

Dr. Pushkar Dubey is a Gold Medalist in Master of Business Administration from Sambalpur University having specialization in Marketing and Human Resource Management. His doctoral work includes the area of Human Resource Development and obtained his Ph.D. degree from Dr. C. V. Raman University, Bilaspur. He has also cleared the UCG-National eligibility test in Management. Presently working as an Assistant Professor & Head in Department of Management, Pandit Sundarlal Sharma (Open) University Chhattisgarh Bilaspur. Prior to his present post held he worked as Assistant Professor at Department of Management, Padmashree Krutartha Acharya College of Engineering (PKACE), Bargarh, Odisha, He has over 10 years of teaching experience. He is accredited with over **35** research papers in journals of National and International repute and has presented many papers in National and International Conferences and Seminars. His key area of interest include Human Resource Management, Organisational Behaviour, Entrepreneurship Development, Consumer Behaviour, Advertising and Marketing Research and has a firm hold in handling the Statistical packages including SPSS and AMOS.



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