

Relationship Between Factors of Online Marketing and Student Enrollment Decisions in Higher Education: An Analysis Using Structural Modeling Techniques

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ABSTRACT

The aim of this paper is to identify the relationship between factors of online marketing and enrolment decision in higher education. With an increasing number of higher education institutions, it has become important to attract students for enrollment, and this paper will help them to do so. Through extensive literature review, the gap was identified and impact of online marketing on each step of the college selection process is tested. Data were collected from various colleges from Nepal. The sample size of the data was 800, and data were collected through structured questionnaire. SPSS and AMOS software were used to analyze the data. Factor analysis has been done, and structural equation modeling has been used in the study to show the relationship between the variables. The findings of the study showed that there is a significant relationship between factors of online marketing and enrollment decision in higher education. These findings will be helpful for higher education institutions for increasing the enrollment number.

KEYWORDS

College Choice, E-Mail, Internet, Internet Advertisement, Marketing Strategies, Parent's Expectation, Search Engine Marketing, Search Engine Optimization, Social Media

INTRODUCTION

The role of marketing has changed in today's time as it has reached to a level where everything and everyone is depended on world of internet. Digital technology has changed marketing scenario. Organization of any kind with the help of online marketing tools are coming in direct contact with their customers and are getting all the information that they want (Gielens & Steenkamp, 2019). With the increasing use of internet, students by the means of social media today look for information regarding the universities, study programs, and go through the comments of alumni of the university that interests them (Gray, Shyan Fam, & Llanes, 2003; Shields & Peruta, 2019).

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Dynamic changes that are taking place because of the digital technology has forced higher education institutions to rethink their way of marketing. Students and other stakeholders need for information and communication needs to be fulfilled by the higher education institutions. Online technologies has offered universities the tools and strategies that can be used by them to fulfill these needs (Alexa et al., 2012). In today's scenario, higher education institutions are keen on finding new ways and methods for engaging prospective students, their alumni and other stakeholders by using Twitter (Kowalik, 2011). For higher education institutions online advertising is a brilliant way to give information about their existence and tell about the advantages that one would gain from the institutions (Evans 2009). Selecting a college does not only include students but includes their parent's also. Parents also take part in the decision making process for selecting a college. Parents are involved in various stages of the college selection process. Parents have expectations from their children, which is a major influence for the students to be enrolled in a college. Students also consider their parents for fee their parents can provide them for the college. At each stage of the college selection process parents get involved (Borders et al., 2011). The purchase behavior of people has changed now. The decision making process is influenced by social media (Constantinides & Fountain, 2008). A student decision for higher education and the kind of institutions that they want is motivated by the amount of involvement their parents have in this decision (Jun & Colyar's, 2002). Parents or their family member influences school leaving student's decision for being enrolled in a higher education institution initially and later on they gather information from the outside sources (Hossler & Foley, 1995).

The study will identify various factors that affect online marketing of higher education institutions and its relationship with enrolment decision making. The study will also show the effect that online marketing factors will have on enrolment decision. Practically the study is going to present a base for higher education institutions to develop online marketing strategies. It will help the institutions to understand parents and student's role in the enrolment decision-making process and will help to increase the enrolment ratio for higher education institutions.

BACKGROUND

According to Kassandra (2019), to support student's college decision process most of the parents visit the website of the college to collect the information. Parents are an important part of the college selection. Therefore, by sending emails to parents, proper content targeting parents and student's both may increase the chance of choosing a college. According to Shields & Peruta (2018), an understanding of the way and manner a prospective student use social media may be advantageous for the colleges. Mitchall & Jaeger (2018), in their study found that parents who are involved well in the college choice process or planning of college motivates their children in the process of choosing a college, whereas their low involvement with their children planning of their college demotivates their children in the college choice process. According to Joana & Maria (2018), education institutions are investing their money on online marketing activities. With the increase use of social media around the world, it's imperative for universities to be on social media. Being on social media does not mean just having a page of the university there. The university has to be active on it. It has to allow and encourage people to communicate with each other and with the university. One things that is necessary for the universities is to update a proper content on the social networking site with right timing (Peruta & Shields, 2018). For colleges and students social media has become important as it is helping them to communicate well (Berman, 2018). Onyemaechi (2018) conducted a study to see the impact that advertising would have on enrollment rate in LPU-Laguana and found that there is a positive relationship between both. The study has taken 2016- 2017 academic year, compared it with the previous year's enrollment rate, and saw a 7% additional enrollment from that of the previous year. Social media sites like YouTube and Instagram are being used for promotion by different social media influencers. Social media influencer has positive effect on their followers as their followers believe in them and so are willing to opt for the brand that is being advertised by the influencer.

Social media influencers are those people who have their account in the social media and have many followers following their account (Vaibhavi & Leena, 2018; Belagatti, 2017). Today internet marketing has gained a lot of importance in every business. With the growing importance of internet, marketing different opportunities and challenges are being faced by the organizations. Therefore, new online marketing strategies should be made and focused on (Grubor & Jakska, 2018). According to Ashan (2017), recently competition among higher education institutions has increased for recruiting students, which has made the universities to treat students as their customers. According to Pham et al., (2017) universities are trying to gain people trust and providing them with information by using youtube. Sathya (2017) in his study found that majority of the people feel that internet is one of the best way to get the information that they require. Consumers trust more on electronic word of mouth. Access to internet has become easy and available because of which internet marketing has gained popularity (Lalitha & Chandra, 2016). The decision of a student for enrolment in a higher education institute is influenced by the online advertisements. The website of the university is very significant as it influences the decision of getting into a university and selecting it (Jan & Ammari, 2016). According to Brech et al., (2016) universities, which have large number of enrolled student and high reputation, enjoy more fans on Facebook than other universities. Giving right post at the right time plays a crucial part in increasing the fan base of the universities. The use of social media was not just limited to facebook and you tube by students while searching for colleges. They also depended on blogs. Giving more preference to electronic word of mouth for evaluating the colleges (Galan et al., 2015) the reviews given by other customers has an effect on the decision making process of other's interested in it (Chen et al., 2015). According to Jabeen et al., (2015), socio economic factors, personal attributes, reference group, academic factors and environment and facilities are factors that affects the student's choice for higher education. It is important for the higher education institutions to consider students as customers and make marketing strategies according to their needs and requirements. The marketing strategies should be such that it can affect different factors that are important for student's decision making for enrolment (Farjam & Hongyi, 2015). A college's reputation and its marketing tactics are significant as they influence the student's enrolment decision (Jager & Jan, 2015).

Higher education institutions have been adopting business like marketing strategies in case of traditional or internet marketing as they treat students as their customers. Website of the higher education institution is the first information provider to the students and therefore, has to be creative and presented well and also for higher education institutions information sharing the most important thing (Saichaie, & Morphew, 2014; Garwe, E.C. 2014). Social networking has brought changes in higher education institutions. Transferability of knowledge, information sharing and communication has been made easy (Kezar, 2014). Social media helps the university to target their audience (Belangar et al., 2013). According to Lubna riz 'v (2013), consumers purchasing decision can be changed and is very much relied on online word of mouth like online chats and email. Online advertising has an impact on consumer's mind. Online advertising features like content writing, creativity and ways of interaction has great influence in customer's mind (Vida, 2012). The use of social media by higher education institution is at an increasing rate for college search process but it is not clear whether it influences prospective student's choice of college (Nyangau & Bado, 2012). According to Maity et al., (2012), the major role of internet in people's life is the searching information needed by them. The website design, pop ups and other online marketing strategy should be considered seriously as in today's time consumer get attracted by these. According to Greenwood (2012) these educational institutions should plan their own page in social media site, often used by the students, acquire the innovative preferences.

One of the most important thing to consider here is the content available. If the content is not satisfactory, it may make the student lose interest (Constantinides & Zinck, 2011). Omboi, B.N. (2011) stated that student's enrolment rate could be increased in the private universities by doing advertisement. Varsity Outreach (2011) stated that the admission officers and the marketing department in the colleges are using social media to look for students they require and reach out to

them. Facebook being a major admission tool followed by twitter, youtube and blogs. Borders et al., (2011), in his study found that if a student frequently visits the page of the university created by the university on social media sites increases the chance of applying in that same university. For any latest news or information that anyone requires within seconds related to any issue the internet gives it all. Internet is spreading as major source of information (Dogruer et al., 2011). According to Joseph (2010) advertising has a positive effect on student's college choice decision. Paulsen (2010), in his study found that selecting a college for higher education is an important decision for both students and their parents. A negotiation takes place between them that is going to influence the decision of selecting a college. Parents open the door for their children to get into a college but their participation in this college going process differs according to their socio-economic status. There are various factors that influence the decision of being enrolled in a university. Universities have to market themselves according to the factors that influence student's choice of university (Kusumawati et al., 2010). Social media is the new hybrid element of promotional mix. Consumers have turned away from traditional advertising methods. They want immediate access to information (Mangold & Faulds, 2009). Through social media, universities can create their own web community to attract students (Hayes, Ranchman, & Walke, 2009). Barnes and Matson (2009), study revealed that admission officer's use of social media for attracting students kept on increasing from the previous years. Ninety one percent of the respondents agreed that for future recruitment strategy of students they would use social media. Higher education institutions with their marketing strategies starting with sending direct mail to parents consisting recruitment material, leads to discussion about that institutions with their children (Rowan-Kenyon, 2008). According to Bayraktaroglu & Aykol (2008), the internet has become a main source from where consumers gather all the information. Online advertising covers the information that a student needs (Brown & Oplatka, 2006). Social media, display ads and the website of the college seems to be effective it is able to get response from most of the students. The rich stock of information about the higher education institution if supplied to the students will affect their decision of choosing a college (Briggs, 2006). According to Perna (2006), one important factor that has restricted the student's college choice process is the affordability of that college in terms of income. There is a strong relationship between choice of college for enrolment and the family income. Higher the involvement of parents in the higher education institution, higher will be the chances of student's enrolment. So, higher education institutions should know the way to involve parents (Perna, & Titus, 2005). Communication is the key for higher education institutions marketing activity. The college website is the most common and the first thing that is going to inform the students about the college (Carnevale, 2005). So much competition among the universities has given rise to so many challenges in higher education institution. Therefore, it has become very important for the universities to have enrolment numbers achieved, be financially stable, give a competitive edge and well thought academic structure (Cetin, R. 2004). The competition between higher education institutions has confused the customers mind as they are in dilemma for choosing a college. These institutions with the help of new technologies for marketing purposes can lessen this dilemma (Drummond, 2004). Ramasubramanian (2003), in his study found that the images displayed on university website have a positive impact on the prospective students'. The architecture and the greenery plays an important role creating impression in front of the students. According to Paulsen (2001), the college going thinking starts from class 9 onwards, which is dependent on the grades and parents involvement. By the time one reaches class 11 and 12 the search stage starts. In colleges, the recruiting team are making attempts for recruiting and holding best and brilliant students for graduation with the expectation to see improvement in the reputation of the college and in future, overall increase in enrollment (Ogbuehi & Rogers, 1990).

There are five stages of the college selection process: the pre-search behavior, search behavior, application decision, choice decision, and matriculation decision through which students and their parents got through. The first stage, which is the pre-search behavior, is influenced by many factors. This stage is for a long period. This is the stage where at first a student recognizes the need for higher education and then look for options of various colleges. The demographic factors like, parent's

education and income, socioeconomic status and the like may influence this stage. Then is the search stage. This behavior of students to look for colleges is said to start from high school. This stage is said to be very complex for the students. Searching for colleges means looking for all the information that they can get about colleges to choose one. They look for different sources of information not just one. Students here are influenced by their parents, relatives, friends, teachers and alumni. Many colleges are considered at this stage. The search stage stops when the student chooses colleges where they submit the application. Then is the third stage that is the application decision making. Here, students have already narrowed down their choices and have submitted the application. Students usually apply in those colleges where they have chances of being selected and which meets their criteria for the college. Financial aid is the information, which the students are not sure about at this stage. Then is the choice stage where a student has choices of set of colleges to get enrolled in. Here students have full information about the colleges and the financial aids. The choice stage ends when the students finally select a specific college. But, for some students the choice stage ends later on as they decide to postpone their admission as they might have not got their preferred college or maybe because of other factors. Then is the matriculation decision. Now, finally entering the college decision may change for some students. There can be many reasons for that like a student who was in the waiting list of his or her preferred college may get chosen there or financial or some other issue may have arisen for not getting into the selected college. This harms the college as they become from highly selective college to less selective college (Randall, 1986). According to Chapman (1981), in the past most studies are on the steps of college information search by the students and not on actual enrolment taking place, nor on the tools used by the colleges to attract the students. Printed material are most useful in attracting the students to make their college decision.

Main Focus of the Article

The existing literature of the study shows that online marketing is important for higher education institution but focuses on only one type of online marketing that being social media marketing. These literature show social media being used by higher education institutions to attract the students, to increase the enrollment rate, whereas there are various online marketing strategies that higher education institutions are using. Further, the factors of online marketing and their relationship with enrollment decision is also not known.

Development of Hypothesis

According to Shields &Peruta (2018), an understanding of the way and manner a prospective student use social media may be advantageous for the colleges. Higher education institutions have been adopting business like marketing strategies in case of traditional or internet marketing as they treat students as their customers. Varsity Outreach (2011) stated that the admission officers and the marketing department in the colleges are using social media to look for students they require and reach out to them. Facebook being a major admission tool followed by twitter, youtube and blogs. Being on social media does not mean just having a page of the university there. The university has to be active on it. It has to allow and encourage people to communicate with each other and with the university . According to Bayraktaroglu&Aykol (2008), the internet has become a main source from where consumers gather all the information. Online advertising covers the information that a student needs (Hemsley-Brown &Oplatka, 2006). Apart from social media there are other online marketing strategies that higher education institutions are using, these literatures only state the social media strategy. Therefore, the following hypothesis is developed.

H1: Online marketing factors does not have a significant impact on the pre search behavior of student's enrolment decision.

For colleges and student's social media has become important as it is helping them to communicate well (Berman, 2018). Sathya (2017) in his study found that majority of the people feel that internet is one of the best way to get the information that they require. Consumers trusts more on electronic word of mouth. Access to internet has become easy and available because of which internet marketing has gained popularity (Lalitha & Chandra, 2016). The reviews given by other customers influence the decision making process of the customers (Chen et al.,2015). Borders et al., (2011), in his study found that if a student frequently visits the page of the university created by the university on social media sites increases the chance of applying in that same university. The above literatures have taken only social media as the source of information for decision-making. There is no study talking about the other online marketing strategies. Therefore, this hypothesis was developed:

H2: Online marketing factors does not have a significant impact on the search behavior of student's enrolment decision.

According to Ashan (2017), recently competition among higher education institutions has increased for recruiting students, which has made the universities to treat students as their customers. According to Greenwood (2012) these educational institutions should plan their own page in social media site, which are often used by the students, acquire the innovative preferences. According to Pham et al., (2017) universities are trying to gain people trust and providing them with information through the use of youtube. Borders et al., (2011), in his study found that if a student frequently visits the page of the university created by the university on social media sites increases the chance of applying in that same university. These literatures state focus only on social media effect on application decision, not about other online marketing strategies. There is no literature stating the relationship between application decision of a student for higher education institution and online marketing. Therefore, this hypothesis was developed:

H3: Online marketing factors does not have a significant impact on the application decision of student's enrolment.

According to Joseph (2010), advertising has a positive effect on student's college choice decision. The purchase behavior of people has changed now. The decision making process is influenced by social media (Constantinides& Fountain, 2008).Omboi, B.N. (2011) stated that student's enrolment rate can be increased in the private universities by doing advertisement. Social media, display ads and the website of the college seems to be effective it is able to get response from most of the students. The rich stock of information about the higher education institution if supplied to the students will affect their decision of choosing a college (Briggs, 2006). The competition between higher education institutions has confused the customers mind as they are in dilemma for choosing a college. These institutions with the help of new technologies that are now they are for marketing purpose can lessen this dilemma (Drummond, 2004). There is not enough literature showing the relationship between online marketing and choice decision, as these literatures has taken only social media for their study. Therefore, this hypothesis was developed:

H4: Online marketing factors does not have a significant impact on the choice decision of student's enrolment.

Onyemaechi (2018) conducted a study to see the impact that advertising would have on enrollment rate in LPU-Laguana and found that there is a positive relationship between both. The study has taken 2016- 2017 academic year, compared it with the previous year's enrollment rate, and saw a 7% additional enrollment from that of the previous year. Social media sites like

YouTube and Instagram are being used for promotion by different social media influencers. Social media influencer has positive effect on their followers as their followers believe in them and so are willing to opt for the brand that is being advertised by them (Vaibhavi & Leena, 2018). The reviews given by other customers has an effect on the decision making process of other's interested in it (Chen et al.,2015). Barnes and Matson (2009), study revealed that admission officer's use of social media for attracting students kept on increasing from the previous years. The purchase behavior of people has changed now. The decision making process is influenced by social media (Constantinides& Fountain, 2008). These literature talks about adopting marketing strategies for enrolment decision and social media part in it. They do not state other online marketing strategies that are being used by the higher education institutions. Therefore, this hypothesis was developed:

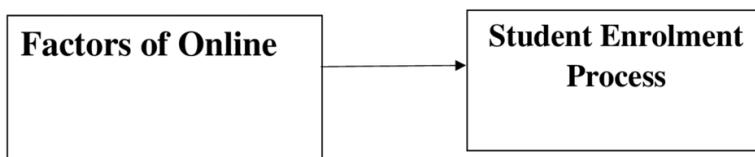
H5: Online marketing factors does not have a significant impact on the student's matriculation decision.

METHODOLOGY

The goal of this paper is to find the relationship between factors of online marketing and enrolment decision in higher education. With an extensive literature review the gap was identified and impact of online marketing on each step of college selection process¹ tested. A conceptual model was developed shown in Figure 1.

The study has used descriptive and exploratory research. Factor analysis has been done and Structural Equation Modeling has been used in the study to show the relationship between the variables. The survey done consisted of the population of those students who have yet to take admission in the college and also for those who have already taken admission in a college. A questionnaire was developed and collected from Kathmandu. The sample size of 800 was taken to obtain an effective output. For this study descriptive and exploratory research has been used. Primary and secondary data has been used in the study. The data was collected from the college-going students in Kathmandu, from the urban area, Nepal. The data was collected from 450 management students and 350 science and technology students. The data was collected from the colleges that come under the top 10 colleges in Kathmandu. Data was collected through structured questionnaire via e-mail and hardcopy. Two sets of questionnaire were developed. One consisted of 18 statements of online marketing and the other consisted of the 19 statements under enrolment decision process. These statements were made according to the study to fit them well. The study used 5- point Likert scale to collect the response, where the respondents has to rate between the ranges "strongly disagree (1)" to "strongly agree (5)". Convenience sampling was done. To test the hypothesis, we performed exploratory factor analysis, confirmatory factor analysis and structural equation modeling on the data using AMOS. SEM has been used in the present study as we intend to examine causal and effect relationship between the said constructs in the study.

Figure 1. Conceptual model (Source: Authors, 2021)



Ethical Consideration

Research ethics is very important to complete research. This research has been done considering the research ethics. The respondent of the study will be given enough time to response so that they can fill their response correctly, according to their view and their participation will be voluntary. The purpose collecting the data will also be mentioned to them. Consent of the respondent will be taken to use their given data. Respondent confidentiality will be maintained, to ensure their data privacy. Identity of the respondent will only be disclose with their permission, if permission is not given then the identity will not be disclosed. For using secondary data, references will be given appropriately. Hence, the research ethics will be properly followed in this research.

Data Analysis and Result

The Kaiser-Mayer-Olkin (KMO) measure of testing amplexness was used for dissecting the quality of relationship among factors. The KMO sample sufficiency metric have been devised to determine the appropriateness of factor examination as it tells if factor analysis can be performed with the given information or not. The estimated KMO varies between 0 & 1 and, high esteem around 1.0, indicating that with the given information factor investigation may be attractive. For testing or for examining the KMO examining amplexness should be greater than 0.5. The value of KMO is .908 as shown in Table 1, which is adequate for testing.

Table 1 shows the loadings of 18 variables, 5 factors extracted. If the absolute value of the loading is high, factors contributing to the variable will be more. Five factors of online marketing were identified by using rotation method in factor analysis. The five factors of online marketing has been disclosed by the Principle components table and Associated variable descriptive statistics table, they are Convenience, Building Relationship, Outreach, Easy access of communication and Value creating. These factors affect the enrollment decision-making process. For investigation of the fundamental components, which are related to the 18 variable Principal component analysis, was done. This disclosed that factor 1 had 39.034% variance and similarly factor 2 had 10.100%, factor 3 had 7.489%, factor 4 had 6.413% and factor 5 had 5.851% of variance.

Confirmatory Factor Analysis: In the present study, a two stage structural equation modeling approach has been embraced. Here, those factors, which were found during EFA, are confirmed by the means of CFA (confirmatory factor analysis approach). To carry out CFA, amos software was used in the study using maximum likelihood estimation. Sample size of 800 was taken to get the effective output. Confirmatory factor analysis model has been constructed, shown and run in the study.

Figure 2 shows various variables on CFA with 18 items of online marketing (there are 5 items on Convenience, 4 items on Building Relationship, 3 items on outreach, 3 items on ease of communication and 3 items on value creating).

Table 2 shows the following results of confirmatory factor analysis and the model fit indices. CFI value ranges between 0 to 1 and if the value is greater than 0.95 it shows a good fit. Chi-square value required for good fit $0 \leq \text{Chi-Square}/df \leq 2$ and for acceptable fit $2 \leq \text{Chi-Square}/df \leq 5$. Root mean square error of approximation, which is RMSEA if < 0.05 then we reject the model. The TLI value ranges between 0 to 1 and if the value is $> .9$ it shows a good fit and the value of CFI will always be greater than the value of TLI. For normal fit index good fit value is, $0.95 \leq \text{NFI} \leq 1.00$ and acceptable is $0.90 \leq \text{NFI} \leq 0.95$.; CMIN: 3.995, P value = 0.00, CFI (Comparative Fit Index): .943, GFI (Goodness of Fit Index): .931, AGFI (Adjusted Goodness of Fit Index), NFI (Normed Fit Index): .926, RMSEA: .061, TLI: .931. This shows the measures suitability so that they can be used in the further analysis.

Table 3 shows relationship between all the factors. To see whether there exists a relationship between the constructs or not convergent validity and discriminant validity test was done. In case of convergent validity, CR and AVE were checked. The value of $\text{CR} > 0.7$ is considered as good fit. In the case of AVE the value if is above 0.5 it is then acceptable. In discriminant, validity MSV and ASV is checked. In this case, the value of MSV has to be smaller than the value of ASV and

Table 1. Factor loading and KMO Bartlett's Test of Sphericity

Attributes	Factor loading				
	Component 1 (Convenience)	Component 2 (Building Relationship)	Component 3 (Out Reach)	Component 4 (Easy Access of communication)	Component 5 (Value Creating)
Online marketing helps in two way communication	.762				
Online marketing covers wide area and saves time	.815				
Online marketing creates awareness about the existence of the higher education institution	.802				
Online marketing increases the credibility of the higher education institution	.696				
Online marketing helps to target one particular group	.723				
Online marketing helps to keep in touch regularly with the target group		.775			
Online marketing is the easiest and fastest way of sharing information		.796			
Online marketing helps in making relations with the target group		.754			
Online marketing allows you to connect to different people of the same interest and make space for discussion		.822			
Online marketing raises the interest in higher education institutions			.742		
Online marketing helps the higher education institutions to reach the national and international boundary			.783		
Online marketing makes it easy to get information about different colleges and universities.			.773		
Marketing done through online media are trustworthy				.746	
Online marketing helps to seek required information about the colleges and universities				.825	
Online marketing helps to create positive image about the higher education institutions				.665	
Online marketing is cost effective					.727
Online marketing changes the way people take decisions					.693
Online marketing facilitate quick responses and feedbacks					.778
Eigen value	7.026	1.818	1.348	1.154	1.053
Variance explained (%)	39.034	10.100	7.489	6.413	5.851
Cumulative variance explained (%)	39.034	49.133	56.623	63.036	68.887
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.908				
Bartlett's Test of Sphericity	Approx. Chi-Square	6700.443			
	Df	153			
	Sig.	.000			

Figure 2. Model of relationship between factors on online marketing (Source: Authors)

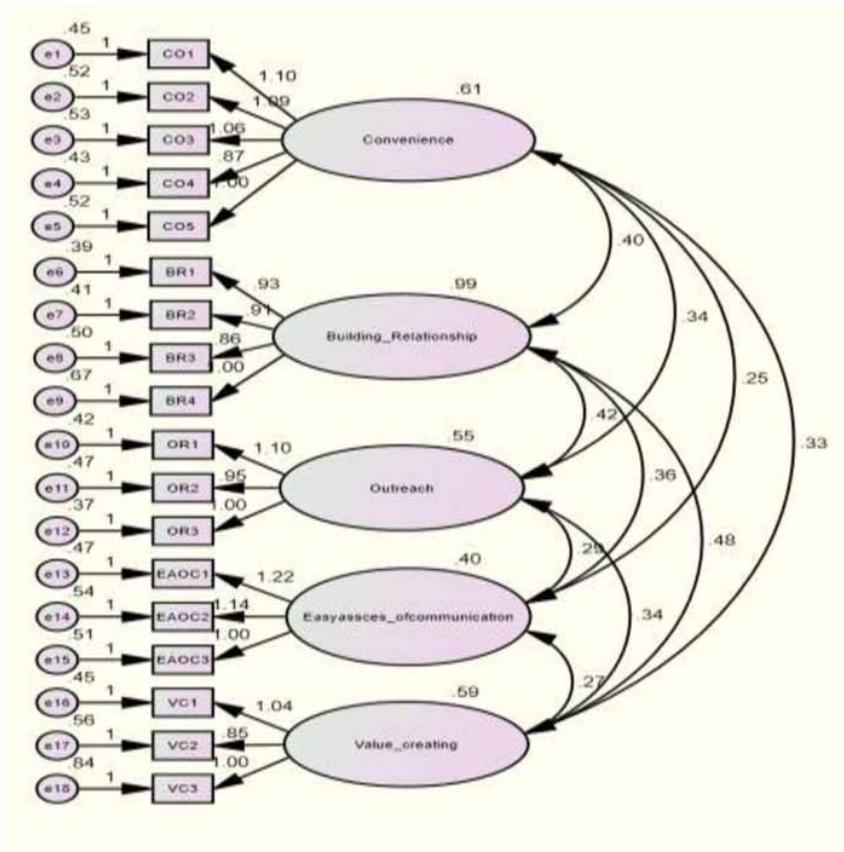


Table 2. Model fit indices

Indicator	Required for Good Fit	Required for Acceptable Fit	
CMIN (Chi-Square/df)	$0 \leq \text{Chi-Square/df} \leq 2$	$2 \leq \text{Chi-Square/df} \leq 5$	3.995
P value overall	$0.05 \leq p \leq 1.00$	$0.01 \leq p \leq 0.05$.000
CFI (Comparative Fit Index)	$0.97 \leq \text{CFI} \leq 1.00$	$0.95 \leq \text{CFI} \leq 0.97$.943
GFI (Goodness of Fit Index)	$0.95 \leq \text{GFI} \leq 1.00$	$0.90 \leq \text{GFI} \leq 0.95$.931
AGFI (Adjusted Goodness of Fit Index)	$0.90 \leq \text{AGFI} \leq 1.00$	$0.85 \leq \text{GFI} \leq 0.90$.905
NFI (Normed Fit Index)	$0.95 \leq \text{NFI} \leq 1.00$	$0.90 \leq \text{NFI} \leq 0.95$.926
RMSEA	< 0.05	$< .08$.061
TLI	$> .9$	< 5.0	.931

Source: Authors

the value of ASV has to be smaller than AVE ($MSV < AVE$ and $ASV < AVE$). AVE value of all the factors is acceptable as they are above 0.5 and likewise for CR, it is considered as good fit as all the values are above 0.7. Also, value of ASV and MSV is smaller than that of AVE. Therefore, there is a relationship between all the factors as can be seen in the result.

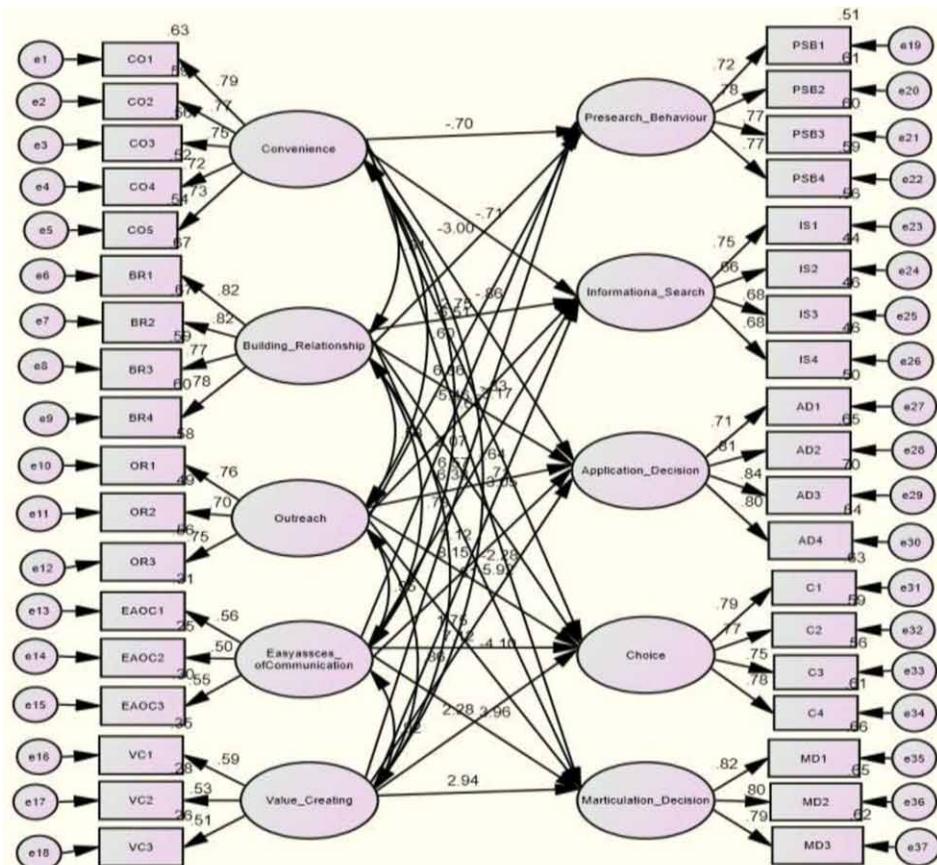
Table 3. Convergent and discriminant validity

	CR	AVE	MSV	ASV
Convenience	0.816	0.598	0.16	0.1
Building Relationship	0.843	0.574	0.17	0.17
Outreach	0.874	0.635	0.17	0.13
Easy Assces of communication	0.802	0.575	0.12	0.08
Value Creating	0.831	0.622	0.23	0.12

Source: Authors

After obtaining a successful result from confirmatory analysis, Structural Equation Model was developed as can be seen in Figure 3 and was run using software Amos. Structural equation modelling is a very effective technique that is used to test the causal relationship (Kaikire *et al.*, 2016). It facilitates to see the relationship between the observed and latent variables (Ramlal, 2016). The main aim of using structure equation model was to test multiple regression equation all together. Further, it also helped us to see the relationships between factors of online marketing and enrollment decision process. Relationship between factors of online marketing on each step of the enrolment decision process has

Figure 3. Structural model of factors of online marketing impact on student enrollment decision process (Source: Authors)



been tested through Structural equation modeling. The main aim of using structure equation model was to test multiple regression equation all together. Further, it also helped us to see the relationships between factors of online marketing and enrollment decision process. Sample size taken here was 800.

The significance of relationships between the variables has been shown in Table 4. The online factors have a significant impact on the higher education enrollment decision process. The impact of convenience on pre- search behaviour ($\beta = -5.890$ and $p = .017$); Building relationship on pre- search behaviour ($\beta = -2.293$ & $p = 0.14$); outreach on pre- search behaviour ($\beta = -5.895$ & $p = 0.17$); Easy access of communication on pre- search behaviour ($\beta = 10.032$ & $p = 0.19$); Value creation on pre- search behaviour ($\beta = 3.573$ & $p = .030$) found significant impact on enrollment decision making. The impact of Building relation on information search ($\beta = -2.226$ & $p = .019$); convenience on information search ($\beta = -5.733$ & $p = 0.15$); Outreach on information search ($\beta = -6.182$ & $p = 0.15$); Easy access of communication on information search ($\beta = 10.174$ & $p = .020$); Value creating on information search ($\beta = 2.790$ & $p = .045$) found significant impact on enrollment decision making. Impact of Building relationship on application decision ($\beta = -2.391$ & $p = .025$); Convenience on application decision ($\beta = -4.828$ & $p = .025$); Outreach on application decision ($\beta = -6.730$ & $p = .017$); Easy access of communication on application decision ($\beta = 11.760$ & $p = 0.16$); Value creating on application decision ($\beta = 2.142$ & $p = .027$) found significant impact on enrollment decision making. Impact of Convenience on Choice ($\beta = -4.852$ & $p = .027$); Building relationship on Choice ($\beta = -2.447$ & $p = .017$); Outreach on Choice ($\beta = -6.652$ & $p = .014$); Easy access of communication on Choice ($\beta = 10.936$ & $p = .019$); Value creating on Choice ($\beta = 2.979$ & $p = .046$) found significant impact on enrollment decision making. Impact of convenience on Matriculation decision ($\beta = -5.686$ & $p = .037$); Building relationship on Matriculation decision ($\beta = -1.912$ & $p = .007$); Outreach on Matriculation decision ($\beta = -4.799$ & $p = .011$); Easy access of communication on Matriculation decision ($\beta = 6.341$ & $p = .050$); Value creating on Matriculation decision ($\beta = 4.017$ & $p = 0.000$) found significant impact on enrollment decision making. The p value of all the variables are less than 0.05 indicating a significant relationship. This shows that there is a significant relationship between factors of online marketing and enrollment decision for higher education.

From the above statistics, it is found that our null hypothesis is rejected and the alternative hypothesis is accepted which means that online marketing factors have impact on higher education enrollment decision.

CONCLUSION

Today internet marketing has gained lot of importance in every sector. With the growing importance of internet marketing, different opportunities and challenges have occurred the organizations. Therefore, one needs to focus on new online marketing strategies (Grubor & Jaksa, 2018). Dynamic changes that is taking place because of the digital technology has forced higher education institutions to rethink their way of marketing. Students and other stakeholders need of information and communication needs to be fulfilled by the higher education institutions. Online technologies has offered universities the tools and strategies that can be used by them to fulfill these needs (Alexa et al., 2012). Therefore, it is important for higher education institutions to opt for different online marketing strategies. The study has identified five factors of online marketing for higher education institutions (Convenience, Building Relationship, Outreach, Easy access of communication and Value creating). It shows the effect of these online marketing factors on each stage of enrolment decision process. The present study has an important contribution for higher education sector. Firstly, the research has contributed to the body of knowledge by bringing into light the factors of online marketing and showing a significant relationship between them and enrolment decision process of higher education institutions, especially in the context of Kathmandu. The study has shown that online marketing has a significant impact on students' enrollment decision-making process in case of higher education institutions. The result shows clearly that a student's decision to get enrolled in a higher education is influenced by the

Table 4. Estimates of hypothesis model

			Estimate	S.E.	C.R.	P	Label
Presearch_Behaviour	<- --	Convenience	-5.890	.507	-1.360	.017	par_38
Presearch_Behaviour	<- --	Building_Relationship	-2.293	.932	-2.461	.014	par_39
Presearch_Behaviour	<- --	Outreach	-5.895	2.471	-2.386	.017	par_40
Presearch_Behaviour	<- --	Easyassces__ofCommunication	10.032	4.257	2.357	.018	par_41
Presearch_Behaviour	<- --	Value_Creating	3.573	1.358	1.895	.030	par_42
Informationa_Search	<- --	Building_Relationship	-2.226	.953	-2.336	.019	par_43
Informationa_Search	<- --	Convenience	-5.733	.520	-1.410	.015	par_44
Informationa_Search	<- --	Outreach	-6.182	2.530	-2.444	.015	par_45
Informationa_Search	<- --	Easyassces__ofCommunication	10.174	4.357	2.335	.020	par_46
Informationa_Search	<- --	Value_Creating	2.790	1.391	2.005	.045	par_47
Application_Decision	<- --	Building_Relationship	-2.391	1.066	-2.244	.025	par_48
Application_Decision	<- --	Convenience	-4.828	.581	-1.426	.034	par_49
Application_Decision	<- --	Outreach	-6.730	2.829	-2.379	.017	par_50
Application_Decision	<- --	Easyassces__ofCommunication	11.760	4.875	2.412	.016	par_51
Application_Decision	<- --	Value_Creating	2.142	1.550	1.383	.027	par_52
Choice	<- --	Convenience	-4.852	.558	-1.526	.027	par_53
Choice	<- --	Building_Relationship	-2.447	1.023	-2.391	.017	par_54
Choice	<- --	Outreach	-6.652	2.716	-2.449	.014	par_55
Choice	<- --	Easyassces__ofCommunication	10.936	4.677	2.338	.019	par_56
Choice	<- --	Value_Creating	2.979	1.494	1.995	.046	par_57
Marticulation_Decision	<- --	Convenience	-5.686	.388	-1.768	.037	par_58
Marticulation_Decision	<- --	Building_Relationship	-1.912	.711	-2.687	.007	par_59
Marticulation_Decision	<- --	Outreach	-4.799	1.888	-2.543	.011	par_60
Marticulation_Decision	<- --	Easyassces__ofCommunication	6.341	3.244	1.955	.050	par_61
Marticulation_Decision	<- --	Value_Creating	4.017	1.056	3.804	***	par_62

online tools. The online activities or marketing strategies are appealing to the students. Impact of online marketing has been shown on each step of the student's enrollment decision making process, thus giving a deeper insight. Secondly, the models were developed and put to test by using statistical techniques, making it easy for others to look at them and get an easy and better understanding. The analysis of the Structural Equation Modelling shows that there is a significant relationship between factors of online marketing and enrollment decision process

Managerial Implication and Limitations

The study is effective for higher education policy makers. The findings of the paper is very helpful for higher education institutions especially for the marketing department to attract students. The competition between higher education is very high. This paper will also help them to understand the online marketing strategies effect more nicely. Thus, helping them to face the competition. It is important to understand that online marketing strategies are important for all the stages of the decision-making process and hence, marketing should not be limited to just few stages. Colleges and universities marketing department should make a solid online marketing strategy to attract the students. As the study shows that students decision making process for enrollment is affected by internet, therefore, marketing department needs to be updated with the internet platforms and strategies.

There are limitations in this study. Further, the models developed in this study can be used. The study does not differentiate between stages where online marketing maybe less effective than the other. Therefore, further study can be done to investigate this. Secondly, further study can be done to see the moderating effects. In addition, the study does not include parents, income, higher education institutions reputation and like. Therefore, this can also be an area for further studies.

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