

Apps vs. Websites: End Users' Preference in a Continuously Innovating Digital World

Dorothy Dutta

Research Scholar in the Department of
Business Administration, Naapam,
Tezpur University, Assam, India.

Dr. Mrinmoy K Sarma

Professor in the Department of Business
Administration, Naapam, Tezpur University,
Assam, India

Abstract

In a digital era, the question of whether end-user' prefer apps or website especially in a continuously innovating era where incremental service innovations are happening all over is still unanswered which the paper investigates. Primary data was collected from 665 respondents from India through judgment sampling with a structured questionnaire. The responses are analyzed using statistical tests like the Chi-square test and Binary Logistic Regression. The awareness of the user about the frequent changes made on digital platforms along with the type of service availing online had a significant influence on the decision to choose an app or website. The demographic variables of the place of residence, education and income levels predicted the presence of a certain relationship between the two. The social skills out of all the skills determining the total level of internet skills of the end-user showed a significant impact on the choice made. A mathematical model is formulated to determine the probability of the user choosing an app or website depending on his/her level of social skills.

Keywords:

Apps, Websites, Digital, Internet, Skills

Introduction

The ongoing digital transformations in the world are embracing every sector in the economy affecting the lifestyle of people. One of the striking factors that accelerate this digital revolution is digital platforms (Eferin, Hohlov and Rossotto, 2019). Technological transformation enhances the efficiency of the market and results in economic growth (Arezki, et al., 2018). Earlier, Gölpek (2015) concluded that technological developments have also improved the service sector which was traditionally neglected. But now it is realized that with digital ways of doing businesses it is the methods of delivery of services to the end-users' have been changing along with the product. The technological interventions in the services are one of the recent factors that have allowed the sector to innovate (Giraldo, 2010).

Due to the short span of the lifecycle of products and an increase in the competition it becomes important for marketers to innovate. However, the emergence of digital platforms has helped service providers to implement continuous innovation strategies to keep people engaged in

their services. A platform has been defined by Kelly (2016) as the one that “discourages ownership and promotes access instead”. Still, et al., (2017) defined digital platforms as multi-sided marketplaces with business models which enable producers and users to create value together by interacting with each other. But platforms don't always refer to the ones available on the internet but rather can be defined as a holistic model that brings together consumers and suppliers.

While availing digital platforms for different services, the users today are exposed to both apps and websites; with the service providers allowing the consumers to avail the same set of services either through the apps or its web-based version. Mobile applications or popularly known as apps are software programs made to be used on wireless devices for personal use such as smartphones (Pechenkina, 2017) and are designed to serve various purposes across diverse platforms for a wide range of users. An app is basically the mobile version of an internet website (Pechenkina, 2017). There have been pieces of evidence in the past that users prefer using apps rather than browsing the same through a website (Kang, Mun & Johnson, 2015). (JMango 360, n.d.) revealed that 61% of millennials prefer the use of apps for retail shopping. The initial engagements are done through browsing of the website and once a certain comfort level is built with the website the users switch to apps for better speed and user experience.

However, Wong (2012) did a study to find out if the library users prefer watching videos via the mobile app when the web version of the same platform named HKBUtube was also available. The results here showed that the use of both the app and web version were the same. A mobile website is the best possible way for a service provider to reach out to a wider section of consumer providing them a mobile-friendly content and should be the first step while making a digital presence (Summerfield, n.d.). As per Blair (2019), 57% of the total digital media usage is from mobile apps. The reports also stated that the chances of an Indian using more number of apps installed on their smartphone per month is quite high as compared to countries like China and Japan. India has a total internet user base of 493 million in 2018 and 97% access the internet through mobile devices; with the number of users increasing consistently especially in the rural areas of India.

Though the true reasons for preference of apps or websites have not been identified as such, Redbytes (2018) cited that the preference mostly depends on the requirements of the user and it is ultimately the decision of the user. In this research, we try to establish if certain characteristics have an impact on the making the choice to use an app over a website or vice versa in semi-urban and rural settings of India. The study has been conducted in the state of Assam

situated in the Northeastern corner of India with an internet user base of 10.25 million in 2018 (Kalita, 2018). Although the internet penetration in Assam is comparatively lower than states like Kerala, the state has been constantly showing an increase in its internet use parameters e.g. the state has been registered as one of the major contributors to the growth of Paytm in India (BW Online Bureau, 2018). Assam comprising of 86% rural areas and a growing rate of internet use, the state represents the scenario of India aptly.

Demographics

An important aspect of the use of digital platforms in a diverse emerging economy like India is the demographics. Business Today (2019) reported a 200 million active users in the rural areas of the country. The country saw a rise of 35% growth in the rural users while that based on the urban parts were at a 7 % growth. Another disparity in the internet users of India is the gender- Bhalla (2018) reported that as per Internet and Mobile Association of India (IAMAI) only 30% of the total internet users in India are females; however, with an increase in the use of internet in the rural areas this disparity might also get covered. Bhalla (2018) mentioned that the demographic profiles of the internet users' and their purpose of usage are interlinked. As an example, he pointed out that the internet is only a source of entertainment for the younger age groups of users and until they are made aware of the other civic and social services it could be the only use of the internet they are acquainted with. Thus in the case of preferring apps or websites, analyzing the demographic profiles of users might generate interesting insights.

H_{0a}: The decision to choose apps or websites for availing an online service is not related to the demographics of the user.

The demographics of the paper would dwell further into are- *Place of Residence, Gender, Age, Educational Level, and Income*

The demographics show almost equal percentages from both the genders (refer table 1). Statista (2019) states that by 2020, 67 percent of internet users in India would be under the age group of 35 years. Hence, the distribution of respondents in the age group of below 35 years accounts for the majority of the sample. Due to the distribution in the age group, the income, and education level have been tilted towards a certain category. Due to this the income level of the respondents' have been classified into two broad categories of earning and non- earning. The place of residence have been categorized into two parts - urban and non-urban (comprising of the semi-urban and rural areas) which shows almost equal responses ; although Assam has a majority of the rural population the inclusion of Kamrup Metropolitan in the sampling procedure, a district with

82% urban population as per Census 2011, the samples show an equivalent number of urban and non-urban residents.

Internet Skills

Internet is the major component that facilitates the use of these digital platforms. Deursen, Dijk & Peters (2012) discusses the importance of internet skills and contending that only the availability of internet connection does not imply the meaningful use of it and that the role of internet skills is equally important. Wittendorp (2017) stated that internet skills in today's scenario change very fast due to the fast rate of development and the adoption of technology. Moreover, the use of platform-based models for providing services to consumers has allowed service providers to innovate quite frequently as Pisano (2014) suggests that the profits generated by a firm are a maximum from that of the stream of routine innovations and not the disruptive ones. Thus it becomes very important for digital platforms too to innovate frequently in order to sustain in the highly competitive market (Pisano, 2014). These frequently made innovations termed as – “Incremental Innovations” demands a constantly reviving set of internet skills from its users.

Thus, we lay our next null hypothesis for the study –

H_{0b}: Users' preference for apps over websites is not associated with their level of Internet skills.

Deursen et al., (2014) developed an instrument to measure Internet skills due to the increased use of the internet in the daily life of people. The scale was constructed to overcome the traditional meaning of internet skills that was believed to be only comprised of the 'button knowledge' (Deursen et al., 2014). It further stated that Internet Skills could be best explained by five parameters: Operational, Information Navigation, Social, Creative and Mobile skills. These parameters are measured through certain sets of variables like- Operational, Information Navigation, Social, and Creative are measured with five items each; while the measurement of mobile skills is done through three items. O'Doherty et al. (2019) mentioned that operational skills deal with the ability to operate digital media; information navigation is the ability to look for information online without facing serious navigation issues; social skills are the ones that help the users in engagement on social activities online; creative skills characterize the ability to create various content online; and mobile skills are the basic skills required to use mobile apps on mobile devices. The items in the Internet Skills Scale developed by Deursen et al., (2014) aptly capture these aspects having a conceptually strong framework providing its efficient use for research purposes (O'Doherty et al., 2019). According to Wittendorp (2017), this scale is comparatively new and

provides a good score for validity and reliability and thus, has been used here to determine the internet skills of the users'. Considering acceptability and suitability to this research purpose it is thought to be safe to use this scale in order to measure internet skills of the users.

The Internet Skills Scale used here is a five-point Likert type scale having the options- Not at all true of me=1, Not very true of me=2, Neither=3, Mostly true of me=4, Very true of me=5

Sampling

As mentioned in section 1 & 2, the state of Assam has been considered for data collection. The study takes a quantitative approach and a structured questionnaire has been designed to collect primary data. A total of 665 responses were collected through judgment sampling holding the criteria of the respondent's use of smartphone for availing at least one service online. The questionnaire has been designed by reviewing previous literature and the short version of the Internet Skills Scale developed by Deursen et al., (2014) has been used for the study which is a 23 item scale. The questionnaire was pilot tested with a sample size of 30 generating a Cronbach's Alpha value for the reliability of .930.

Bujang, Ikhwan, Sa'at, and Sidik (2017) found in his study that a minimum sample size of 300 or above yields a close approximation of the target population for conducting tests like Regression and ANOVA. Hence, we proceed towards conducting the statistical analysis.

The data collection has been done in the districts of Kamrup (M), Nalbari, Jorhat and Sibsagar in Assam which is amongst the top four districts on the Employment and Livelihood Quality Index (ELQI) of the Human Development Survey (2014). The ELQI takes into account factors like the social and economic characteristics of the districts such as the proportion of marginal social groups in the total population, level of education, dependency on agriculture, etc., ELQI has the average per capita income as one of the variables which are related to the use of technology; higher average per capita income higher is the use of internet (Pew Research Center, 2014). The use of rankings of ELQI for our sample population would ensure better results as use of internet activities either for fun and information seeking or sociability have a positive correlation with the perceived quality of life (Lee & Leung, 2005) and as the uses of internet in the developing countries are largely dependent on the employment status and ultimately the income or affordability of the user (Chinn & Fairlie, 2010). The demographic representation of the respondents has been shown in table 1 below.

Table 1- Demographics of the Respondents

Demographics	Frequency	Percent
Residence		
Urban	332	49.9
Non-Urban	333	50.1
Age		
15-24	407	61.2
25-34	211	31.7
35-44	24	3.6
45-54	14	2.1
More than 55	9	1.4
Gender		
Male	317	47.7
Female	348	52.3
Education Level		
Undergraduate	230	34.6
Graduate	242	36.4
Post Graduate	193	29.0
Income (<i>in Rupees per month</i>)		
Non-Earning	398	59.8
Earning	267	40.2

Results

The primary data collected has been entered into IBM SPSS where various statistical analysis is being conducted to achieve the objectives.

The frequency of respondents preferring apps over a website is at par with previous research by Kang, Mun & Johnson (2015) indicating apps as the preferred mode of Digital Platform for availing various services. More than 60 percent of the respondents show their inclination towards the use of apps rather than opting for a website.

Further, the respondents are asked about their awareness of

the frequent changes occurring in digital platforms due to incremental innovations. The responses are gathered on a dichotomous scale (Yes / No). With 75 percent the awareness amongst the respondents' is reported quite high.

Table 2 displays the overall scenario of the users' preference pattern based on their awareness level. The respondents who are aware of the frequent changes in digital platforms prefer using apps (65.6%) compared to websites (34.4%). However, the percentage of users of apps (58.2%) comes down among the respondents who are not aware of the occurrence of frequent changes.

Table 2- Awareness about Frequent Changes and Preference Levels

Preference	Awareness about frequent changes	
	Yes	No
	Count	Count
Apps	328 (65.6)	96 (58.2)
Website	172 (34.4)	69 (41.8)
Total	500 (75.2)	165 (24.8)

Interestingly, the use of websites (41.8%) among the unaware category of respondents is seen to increase. From this, it can be conjectured that awareness about the frequent changes in digital platforms might lead to preference of apps or websites.

H_{0c} : The preference for using apps or website is not related

to the awareness for frequently made changes in Digital Platforms.

To analyze the results we conduct a chi-squared test as both the variables are measured on a nominal scale. The tables below show the results obtained.

Table 3- Chi-Square Test Results for Incremental Innovations in Digital Platforms

	Value	df	Sig.	Cramer's V
Pearson Chi-Square	3.890 ^a	1	.049	.076
Likelihood Ratio	3.836	1	.050	
Linear-by-Linear Association	3.884	1	.049	

Interpretation - Looking at the Pearson coefficient or the p-value (=0.049) we see that it is less than the significance level of .05 indicating a statistically significant result and leading to the rejection of our null hypothesis number 3.

Next, we look at the value of Cramer's V (as it is a 2 x 2 table) in table 4 to find out the effect size between the two items. The value here is .076 and as suggested by Akoglu (2018) any Cramer's V value in the range of .05-0.10

shows a weak correlation.

In the next section, respondents have been inquired about their mostly availed online service. They are asked to select from options like banking transactions, online shopping or for seeking information and others like ticket and hotel bookings and cab services. Table 4 shows us an overview of the responses received.

Table 4- Type of Service Mostly Availed Online

Type of Service	Banking	Shopping	Information Seeking	Others
Mode	Count	Count	Count	Count
Apps	109 (70.3)	115 (67.3)	134 (54.3)	66 (71.7)
Website	46 (29.7)	56 (32.7)	113 (45.7)	26 (28.3)
Total	155 (23.3)	171 (25.7)	247 (37.1)	92 (13.8)

It is seen that the most commonly used service online is seeking information which is followed by online shopping and banking. The difference in the use of an app over a website to avail the respective service is quite remarkable in case of shopping, banking, and other service categories. While apps take around 70% of the share in these categories, the percentage share of apps (54.3%) and websites (45.7%) are almost at equal levels in case of seeking information. Thus, it could be possible that the

mode preferred for availing services online depends on the type of service the user is going for. This leads to our fourth hypothesis-

H_{0d} : The preference of either app or website is not associated with the type of service availed by the user in a digital platform.

A Chi-square test has been conducted for analyzing further and the results are shown in Table 5 below.

Table 5 - Chi-Square Test Results for Mostly Aailed Services Online

	Value	df	Sig.	Phi Value
Pearson Chi-Square	15.992 ^a	3	.001	.155
Likelihood Ratio	15.902	3	.001	
Linear-by-Linear Association	2.374	1	.123	

Interpretation- The Pearson coefficient value (p) here is .001 which is less than the level of significance .05. This interprets that there is a relation between the most aailed service on a digital platform with that of the selection of apps or website. As the null hypothesis has been rejected we move on to the value of Phi which estimates the correlation existing amongst the two happenings. The value of Phi to determine the strength of correlation between the two it is seen to have value generated a value of .155 which as per Akoglu (2018) falls in the strong category of correlation.

Demographics

H_{0a} : The decision to choose apps or websites for availing an online service is not related to the demographics of the

user

Table 6 reveals the influence of demographics in determining certain aspects of using the internet. Here we try to determine if there is an association between the demographics and the use of apps or website. From previous literature (*refer section 2*) it has been observed that the place of residence, gender and age form as a factor of internet use. Apart from these variables, the education and income level were added as variables as it was stated by Thomas (2018) income inequality in India is at its highest since 1922 which affects the way Indians use the internet.

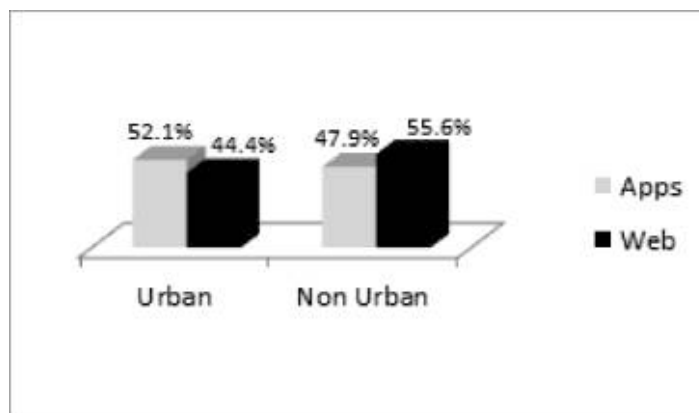
A chi-square test has been run to see if the demographics that are found to impact the internet usage pattern have any significant association with the use of apps or website.

Table 6 - Chi-Square Test Results for Demographic Variables

		Value	df	Sig.	Phi / Cramer's V Value
Place of Residence	Pearson Chi-square	3.668	1	.055	.074
Age		.049	1	.824	.009
Gender		.084	1	.772	.011
Income		3.484	1	.062	.072
Education Level		4.792	2	.091	.085

Interpretation- While conducting the research statistical significance is encountered in case of any of three demographic variables at a significance level of 0.1 - Place

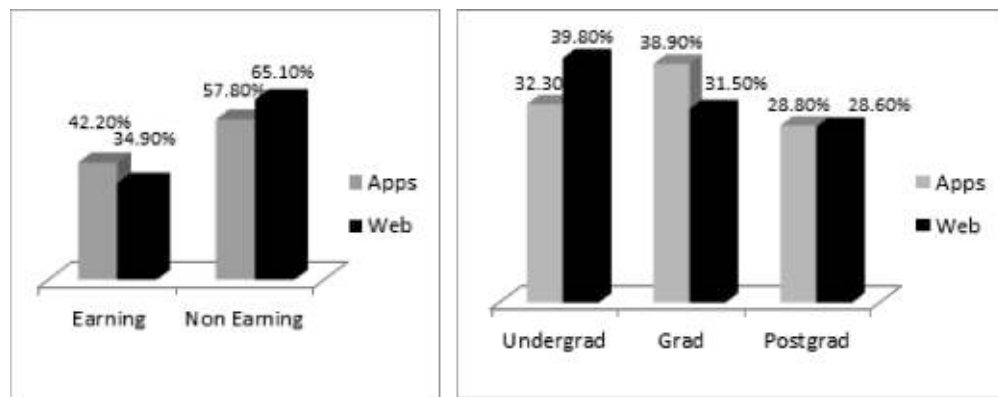
of residence ($p=.055$), income ($p=.062$) and education level ($p=.091$).

Figure 1- App vs. Website use in Urban and Non Urban Areas

Analyzing the three variables further it is found that the preference of apps is higher in urban areas (52.1%) than non-urban areas (47.9%) but the use of websites are seen to be more in case of non-urban areas (55.6%) than the urban residents (44.4%). However, the value of Cramer's V from table 6 shows a weak correlation ($=.074$) between the two.

Similarly, in the case of income, the preference of apps (42.2%) is more than websites (34.9%) in the earning category of respondents. But in the case of the non-earning section, most of the responses preferred the use of websites (65.1%) more than that of apps (57.8%). Looking at the Phi value from table 6, the correlation ($=.072$) between the two was seen to be weak.

Figure 2- App vs. Website among Income Groups and Different Education Level



However, in the case of education level, the postgraduate responses had an equal preference for both the modes. The undergraduates show a slight inclination towards websites (39.8%) than apps (32.3%) but the graduates have more preference for apps (38.9%) than websites (31.5%). Though the Phi value indicates a weak correlation ($=.085$), the postgraduates show equal preferences for both apps and websites, the percentage difference between the graduates and undergraduates are almost equal except for in the reverse direction. These patterns give interesting insights into the possible kind of association that might exist between the variables and could be dealt in future endeavors.

Internet Skills

H_{0b}: Users' preference for apps over websites is not associated with their level of Internet skills

To test hypothesis 2, Binary Logistic Regression has been used. This method of analysis is used as the dependent variable is dichotomous in nature (1= Apps; 0= Website) where 1 depicts the presence of the event indicating the happening of the event which in our case is the preference of an app over website based on the values of the independent variables. Linear regression gives us the value of the dependent variable based on that of the independent variables but in case of logistical regression, it is the transformation of the dependent variable that is shown (Bucur et al., 2016). It is represented by the equation-

$$\text{logit}(p) = \ln p / 1-p = \ln(\text{odds_ratio})$$

where p is the probability of preference of apps over websites and $1-p$ is that of the preference of website over apps with the odds_ratio of the two probabilities being represented by $p/1-p$. Thus a general linear model with k independent/predictor variables is-

$$\begin{aligned} \text{logit}(p) &= \ln p / (1-p) \\ &= \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k \end{aligned} \quad (1)$$

Where β_0 represents the constant and β_1, \dots, β_k are the logistic regression coefficients and x_1, \dots, x_k are the representation value of each predictor variable.

In this part, we have five predictor variables operation, information navigation, social, creative and mobile skills. Replacing the values in equation (1) with the predictor variables we get-

$$\ln(\text{odds_ratio}) = \beta_0 + \beta_1 x_{op} + \beta_2 x_{in} + \beta_3 x_s + \beta_4 x_c + \beta_5 x_m \quad (2)$$

where x_{op} , x_{in} , x_s , x_c and x_m are the level of operational, information navigation, social, creative and mobile skills respectively.

Table 7 shows the mean score for each of the five representatives of internet skills of the respondents. It is observed that out of the five components the creative skills has the lowest value for the mean. The creative skills included a more advanced level of knowledge such as knowing about various online licenses and knowing how to design a website, which most of the respondents were not skilled with.

Table 7 - Mean Scores for Components of Internet Skills Scale

Skills	N	Mean	Std. Deviation
Operational	665	4.27	.86
Information Navigation	665	3.78	.82
Social	665	4.26	.78
Creative	665	3.17	1.03
Mobile	665	4.37	.98

Table 8 - Binary Logistic Regression Results for Internet Skills Scale

Model Summary						
Step 1		-2 log likelihood		Cox and Snell R ²		Nagelkerke R ²
1		861.890		.013		.018
Classification Table						
			Predicted			
Effects on exhibits						
Observed				Apps	Websites	Percentage
Correct						
Step 1	Effects on exhibits	Apps	423		1	99.8
		Websites	237		4	1.7
Overall Percentage						64.2
Hosmer and Lemeshow Test						
			Chi square	df	Sig.	
			6.996	8	.537	
Variables in the Equation						
Parameter		β	SE	Wald	df	Sig.
Step 1	Operational	-.164	.134	1.496	1	.221
	Information Navigation	-.219	.132	2.779	1	.096
	Social	.315	.149	4.431	1	.035
	Creative	-.076	.089	.726	1	.394
	Mobile	-.143	.133	1.158	1	.282
	Constant	-.765	.550	1.934	1	.164

From table 8 above generated while conducting Binary Logistic Regression is seen that out of the five variables analyzed only one has a statistically significant relationship with the odds ratio of using app- social skills: social skills. The other four variables show a p -value of more than .05. For estimating the contribution of independent variables in the variance of the dependent variable, similar to the R squared value in Linear Regression is done by the Cox and Snell R² and Nagelkerke R². However, according to Bucur et al., (2016), the Cox and Snell R² indicator underestimates the real value and thus, for our estimation of the variability the Nagelkerke R² is considered. The variables considered (operation, information navigation, social, creative and mobile) could explain to a minimum level (1.8%) the decision to choose either apps or websites for availing a service.

The classification table shows that the model predicts 64.2% of the cases correctly and the Hosmer and Lemeshow Test generating a p (=.537) value of greater than the significance level of .05 indicates positive goodness of fit for the model. Now, analyzing the Wald test we observe that only the social skills show a statistically significant result and the odds-ratio represented by Exp (β) gives the value for the predictor variable which signifies that the odds of choosing an app over the website is 1.370 times more likely in the presence of social skills.

Finally putting the values of significant representative predictor variable i.e. the social skills equation (2) is reduced to -

$$\ln(\text{odds_ratio}) = .315x_s - .765 \text{-----}(3)$$

Equation (3) could be used to find out the probability of

choosing an app over the website by inputting the social skill score of the user as it is the only significant predictor. The probability values could be interpreted as a possible impact of social digital skills on the choice of an app for the

digital transaction then a website. As the social skills have been measured in a five-point Likert type scale, let us look at the probability of choosing an app over the website by taking the values of $x_s = 1$ to 5.

Table 9 - Probability Values for Social Skills

Values of x_s	Odds_ratio	Probability	Impact
1	.63	.38	Low
2	.87	.46	Moderate
3	1.19	.54	Moderate
4	1.64	.62	High
5	2.24	.69	High

The range of probability values suggested by Brucur et al. (2016) generates the following probability impact on preferring an app over the website. Considering the values above it can be concluded that users' having digital social skills score of greater than or equal to 4 have the highest probability of choosing an app over the website. While a social skill score of less than 2 indicates a low probability of selecting app over website and scores in the range of 2 to 4 have moderate probability of choosing an app.

Discussion

The results obtained through the statistical analysis demonstrated the various factors affecting the choice of a digital platform user between the website and the mobile version of the same. The data collected from primary sources stated that most people prefer the use of apps over websites for their day to day services online. The digital scenario in the current situation is such that the platforms are involved in making incremental innovations in order to sustain in the market. However, the awareness of the users' about these frequent changes that occur due to the incremental innovations continuously being made by the digital platforms has been found to significantly related to their choice of the mode of use – apps or websites. It is observed that the use of apps increases with the awareness about frequent changes in digital platforms. But a strong correlation ($\Phi = .155$) is noticed between the type of service mostly availed online has a strong correlation with the preference of apps or websites where the preference of websites are seen to be almost at par with apps when users are seeking information online unlike other services like banking and shopping where the use of apps are highly preferred.

The demographics selected for the study were- place of residence, gender, age, education level, and income level. There are no statistically significant results generated in the choice of apps or websites based on the influence of the

demographic factors of age and gender. However, place of residence, education level, and income show a significant association between the variables and choice of app or website at $\alpha = 0.1$ level. The preference of website is seen to be more in the non-urban areas and amongst the non-earning group of users. In case of education level, the postgraduate users have a similar level of preference for both and the preference of websites are found to be more in case of undergraduate users whereas the preference of apps is found amongst the graduate users.

The next objective of the study is to determine the role of the consumers' internet skills on their decision to select either apps or websites. The scale for internet skills inquired about a wholesome set of skills from the respondents ranging from basic operational skills to their creative skills online. Nevertheless, the attributes of operational, information navigation, creative and mobile skills generated insignificant results. Social skills showed a significant impact on the choice of apps or websites. The social skills represent the skills possessed by an internet user like the proper knowledge about what kind of information should be shared online, understanding about appropriate behavior online and privacy knowledge like adding or removing people who can view their contents online. Deursen et al. (2016) mentioned that the social and communicative skills on the digital platforms are very important and here the results to indicate that out of all it is the level of digital social skills that have an influence on their preference of apps or websites. They further stated that users spend most of their time on the internet on their smartphones for social purposes and thus, it can be inferred that the presence of an adequate level of social skills online is important to maintain a good level of internet skills. Here in the mathematical model presented, the range of social skills score of a user which ensures the use of an app or that of a website is mentioned based on the level of impact it makes on the preference. The model makes a prediction

about the preference of apps or website given the social skill score of the user.

Conclusion

India is an emerging economy with a rising internet user base. Singh (2018) mentioned that as per reports of Bain & Company there would be 600 million Indians with smartphones in the next five to seven years with each transacting digitally and consuming content. The most striking feature of Digital India is the increase in the use of internet in the rural areas of the country. As our results indicate that the place of residence influences the use of apps or websites, the options for marketers as well as e-government services offered increases. The non-urban residents could thus be made more acquainted with the recent ways of availing various services online by knowing their preferred mode and offering them digital experiences as per convenience. The inclination of non-earning and lower education level users towards websites could be used by marketers to promote to those target groups through a website rather than apps. Or an equal proportion of offers should be provided on websites and apps to attract these sections of buyers. Moreover, as the total number of users preferring apps has been established to be more than websites the marketers operating only through websites can plan an app-based version in order to reach a wider target market. A mathematical model has been suggested in the study that predicts the choice of either an app or website depending on the level of social skills acquired by the end-users' could be used for decisional purposes in reaching out for the target markets.

Limitations and Scope for Further Research

The study has certain limitations in itself which could be further taken up in the future research endeavors such as the study is quantitative in nature and other modes of conducting the research such as exploratory could generate interesting results in the future. The role of social skills into the selection criterion to use either apps or website for the digital experience could be further dealt with in detail as the social awareness online is a very important aspect especially in today's world. Moreover, the demographics like the place of residence, income, and education level are generating interesting patterns of preference which could be studied further in detail.

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