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SIGNIFICANCE OF WEBSITES IN THE IMMINENT ERA

* [1]Goel Rishabh, [1]Pandey P.S & [2]Jethra Geetika

[1]Krishi Anusandhan Bhawan, Indian Council of Agricultural Research, New Delhi-110012, India
[2]National Research Centre on Seed Spices, Tabiji, Ajmer, Rajasthan-305206, India

ABSTRACT

Emphasis is drawn towards the importance of maintaining up-to-date and comprehensive information on the Agricultural based universities and Institutional websites. Results of the empirical analysis revealed that greater innovation has a significant impact on users' faith and satisfaction. Concluding websites are the lifeline of today's generation.

KEYWORDS: Websites, Agricultural, Web Pages, Importance, Usability.

INTRODUCTION

The origin of the internet can be traced back to the 1960s, but it was only in the 1990s that it became under recognition in widespread use, and access to the web continues to nurture. Internet has profoundly changed our economic and social world. As soon as the Internet was developed, there was a craving in human race to connect more "things" to it. From the handful of computers that made up the Advanced Research Projects Agency Network (ARPANET), the Internet now connects anywhere from 10 billion to 15 billion devices. Our methods of communication have changed dramatically over the past 20 years, with a revolution in the way in which we display and receive information [1].

One of the most important and basic method to transfer and popularize the information, so that it can reach each and every home is through websites. Website is a primary user interface for net-enabled businesses [2], information provision and promotional activities. In today's era even the smallest company, organization, school and collages have their own websites on their private domains. Websites have atmost significance for the sharing of information about anything you want to share. While websites might appear cold and distant compared to traditional methods, they also offer novel and interesting possibilities. As noted by Seffah and Metzker [3], "web engineering is not a perfect clone of software engineering, but it borrows many of software engineering's fundamental concepts and principles".

The potential growth and expansion of e-commerce at a very large scale have encouraged the budding researchers to explore the factors related with website success [4]. Website designing and its success can be studied based on 2 major categories: i) Technology-centered point of view and ii) Consumer-centered perspective [5]. If we focus on this from technology-centered point of view, many researchers have introduced frameworks of website characteristics [6-7], addressed the relationships between observable website attributes and website metrics, and studied website usage via site statistics [8-9]. From a consumer-centered perspective, consumer behavior theorists have explored the relationships between website perception, awareness and user behavior. Widely explored perceptions include ease of use, trust, perceived risk [10-11], usefulness [12-13], customer service, personalization, fulfillment and last but most important security/privacy conditions [14].

Websites manifestation or design plays a pivotal role in attracting the user but findings in the research stream have also found website content elements to play an important role in deciding the significance and success of the website. Website content refers to the features, functions; information and products offered on a website, excluding facets of web appearance or design [15-16]. This study put forward a model to investigate the user' satisfaction on agriculture based university and Institutional websites. The introductory version of the model was proposed by author's usability, perceived usefulness, trust and satisfaction. Some of the model's constructs are described as follow [17]. The proposed model includes website innovation, usability, perceived usefulness, trust and satisfaction. Some of the model's constructs are described as follow.

Accessibility: Accessibility in terms of Web design generally refers to facilitating the use of technology as the extent to which a system supports its users in completing their tasks efficiently, effectively and satisfactorily. A user can be attracted by the website by its out shell and appearance. As noted by Insfran and Fernandez [18], web applications have become the backbone of business and information interactions and the need for usability evaluation methods has become critical. "The ease or difficulty that user's experience with systems, [such as web applications], will determine their success or failure"[18]. Accessibility may also include an aesthetic component. On the web, usability extends to factors such as loading time, adequate text-to-background contrast, ease of use, readability and personalization [19]. Website accessibility encompasses the ease with which the user can learn to manage the system and memorize the basic functions, the efficiency of design of the site, the degree of error avoidance and ALT tags. Most importantly emphasis

is led down on the general satisfaction of the user. Accessibility considers the following factors:

1) Ease in understanding the design and structure of the Web Pages.
2) Interface should be easily readable.
3) Effortlessness of use of the website.
4) Site load time should be minimal.
5) Site should have custom not found/404 page.
6) Flash & add-ons should be used sparingly.

Web Identity: Identity is the key factor to draw the attention of users. Each website should have the logo for its Institute or company with a tag line uniquely indicating the accuracy of the search. The websites should be so designed, that they have comprehensible path to institutional information and easy for any user to memorize and can retain information.

Web Navigation: Web navigation is an ever-increasing daily activity for millions of users. The introduction of improved web navigation techniques has the potential to yield vast productivity gains, as illustrated by Nielsen's [20] statement: "The smallest of usability problems, when multiplied across thousands or millions of users, becomes a source of massive inefficiency and untold frustration". Web navigation relies heavily on the use of the `back' button to traverse pages. The traditional back button suffers from the distance and targeting issues that govern Fitts' Law. An alternative to the button approach is the use of marking menus---a gesture based technique shown to improve access times of commonly repeated tasks. It is necessary and obligatory for a superior website to have easy to use, identifiable navigation buttons or menus. It should be mandatory for high quality websites to link home page with the Institutional logo.

Web innovation: Modernization and emergence of new technologies coupled with various application tools make websites full of improvement and attractions. Innovation in website designing can be regard as the imagination, creativity and uniqueness in websites. Novelty and innovation in the website can be considered as the quality measurement in marketing researches and defines as pioneering of a website.

Content Usefulness: Content usefulness and information present on the Web Pages are the major and foremost attraction for the user and a delimiting factor determining the popularity of the website. Calisir and Calsir [21] investigated the impact of different factors on end-users' satisfaction in ERP systems. They state that the most noticeable aspect of their model is that both perceived usefulness and learnability are determinants of end-user satisfaction with ERP systems.

MATERIALS AND METHODS

In the present study, 8 models or hypothesis were proposed to conclude the results:

Hypothesis1: Web innovation has a positive impact on the satisfaction.

Hypothesis2: Web innovation has a positive impact on the faith.

Hypothesis3: Web innovation has a positive impact on the Content usefulness.

Hypothesis4: Accessibility has a negative impact on the innovativeness satisfaction.

Hypothesis5: Accessibility has a positive impact on faith.

Hypothesis6: Accessibility has a positive impact on the Content usefulness.

Hypothesis7: Content usefulness has a positive impact on faith.

Hypothesis8: Faith has a positive impact on the satisfaction.

Hypothesis9: Content usefulness has a positive impact on satisfaction.

A survey was conducted to measure 6 constructs of the model which comprised of 27 items Table 1. A five-point Likert scale was used to measure respondent's agreement or disagreement from (1) "strongly disagree" to (5) "strongly agree". Table 2 shows the profile of respondents. Data was collected over a month. Questionnaires were distributed either in hard-copy format or via email. The sample consisted of users who use diversity of websites. A total of 300 questionnaires were distributed, of which 250 were collected. Various minimum sample sizes for the Structural Equation Modeling (SEM) approach have been recommended.

Data Analysis and Reliably

SEM approach, using LISREL 8.8 was used to appraise accuracy of the proposed model. SEM is a comprehensive statistical approach to investigate the hypotheses about relations among observed and latent variables [22]. Root Mean Squared Error of Approximation, Chi-square/degree of freedom with values of less than 3 indicating acceptable fit, with values below 0.08 representing acceptable fit, Goodness of Fit Index and Comparative Fit Index greater than 0.9, Normalized Fit Index, and Adjusted Goodness-of-Fit Index greater than 0.8 and less than 0.1 are representatives of good fit (The results are shown in Table 3). Construct strength and legality was evaluated through explanatory factor analysis (EFA) [23].

RESULTS

The present study was emphasized to examine the elements and features which are responsible for the satisfaction of website users emphasizing Agricultural Institutions. The proposed model consists of accessibility, web innovation, content usefulness, faith and satisfaction. Of the 9 hypotheses which were projected, 7 were supported by the analyzed data. The structural model depicting the statistical data is shown in Figure 1. It shows the R2 value for each of the endogenous variable. For satisfaction $R_2=0.42$, for faith $R_2=0.54$ and for content usefulness $R_2=0.54$.

The results derived for the present study research hypotheses tests showed that Hypotheses 1, 2 and 3 states that innovation has a positive impact on satisfaction (H1), faith (H2) and content usefulness (H3) respectively. Indistinguishable from hypotheses, results exhibit that innovation has strong direct impact on satisfaction, faith and content usefulness. Accessibility also has strong direct impact on faith and content usefulness but insignificant direct effect on satisfaction. Content usefulness has direct effect on faith but faith has significant direct effect on satisfaction. Fascinatingly, by the present study it was found that website innovation

was the most momentous feature that is affecting and is playing a key role in attracting the website users a l o n g with the sensitivity of content usefulness, faith and satisfaction. This indicates that website innovation should be highly considered in order to increase user's perception of usefulness, faith and satisfaction.

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Table 1: 27 items of the survey list

Accessibility
1. Reasonable Site load-time
2. Adequate text-to-background contrast
3. Font size/spacing is easy to read
4. Flash & add-ons are used sparingly
5. Images have appropriate ALT tags
6. Site has custom not-found/404 page
Web Identity
7. Company logo is prominently placed
8. Tagline makes company's purpose clear
9. Home-page is digestible in 5 seconds
10. Clear path to company information
11. Clear path to contact information
Web Navigation
12. Main navigation is easily identifiable
13. Navigation labels are clear & concise
14. Number of buttons/links is reasonable
15. Company logo is linked to home-page
16. Links are consistent & easy to identify
17. Site search is easy to access
Web Innovation
18. Styles & colors are consistent
19. Software used for designing
20. Attractiveness of WebPages
21. Ads & pop-ups are unobtrusive
Content Usefulness
22. Major headings are clear & descriptive
23. Critical content is above the "fold"
24. Emphasis (bold, etc.) is used sparingly
25. Main copy is concise & explanatory
26. URLs are meaningful & user-friendly
27. HTML page titles are explanatory

Table 2: Profile of the respondents

Characteristics	Frequency	%
Gender		
Female	109.0	43.6
Male	141.0	56.4
Age		
18-21	33.0	13.2
22–25	195.0	64.8
26-29	49.0	19.6
30-35	6.0	2.4
University		
Agriculture	138	55.2
Science	42	16.8
Engineering	51	7.6
Medicine	19	20.4
Website Usage Experience (Year)		
less than 1	16	6.4
1-3	183	73.2
More than 3	51	20.4
Total	**250.0**	**100.0**

Table 3: Statistics of model fit

Fit indices	Recommended value	Results in this study
Chi square test	3.00	2.600
Root Mean Squared Error of Approximation (RMSEA)	0.08	0.078
Adjusted Goodness of Fit Index (AGFI)	0.80	0.810
Normed Fit Index (NFI)	0.9	0.980
Comparative Fit Index (CFI)	0.9	0.980
Goodness of Fit Index (GFI)	0.9	0.890

Figure 1: Statistical Result derived from LISREL 8.8