

Analysis of Relationship between Webpage Content and Visitor

Mr. Indrajit A. Doddanavar

Ph.D., Research Scholar, Jain University Bangalore.
Email: jeetu.bgm@gmail.com

Dr. Prashant C.

Professor, Department of Management Studies at
SDM College of Engineering & Technology, Dharwad
Email: prashanth.chittaranjan@gmail.com

Abstract

Advertising over the internet aims at delivering marketing messages to customers quickly, efficiently and economically. Online advertisement space is restricted. In the previous study it has been found that concentrating on the advertisements towards a specific kind of target audience will result in more visits. But it has been observed that people reach to the website has not explored. This study examines, the involvement of the website visitors based on bounce rate. The conclusion drawn from the study is that posting multiple information on a single web-page related to the product and providing hyperlinks to other pages will reduce the bounce rate.

Systematic flow of action = Advertisement viewed Clicked to visit website Engaged and clicked hyperlinks More pages viewed Information acquisition Better understanding of the product Initiation of purchase intention.

Key words: Online advertisement, Promotion of Website, Target audience, Bounce rate, Vacuum Evaporated Jaggery, Advertising on Facebook.

Introduction

Commodities refers to products that cannot be differentiate from one another since, all seems to serve the same purpose, solve the same problem, and deliver the same value. Branded products on the other hand, when a product gains awareness in the marketplace that it has special characteristics that make it different and better than others in the product category. Therefore, it becomes very important to brand. Branding is a powerful tool that distinguishes the product offering in ways that create consumer preference, gain customer confidence, and allow command premium pricing.

“Jaggery” is a natural, traditional sweetener made by the concentration of sugarcane juice. Also called 'जुडः' in Sanskrit, 'Gur' in Hindi, 'Bellam' in Telugu, 'Vellam' in Tamil, 'Sharkara' in Malayalam, 'Bella' in Kannada, and 'Gul' in Marathi. From ancient times jaggery is used in Ayurvedic medicine and has spiritual significance. Traditionally jaggery making process was organic, but human greed for more yield and profits has made the process unhygienic and poisonous at the other extreme. The want of purity and wholesomeness and the awareness of global warming, the need to promote clean technologies and ways and means to reduce pollution has led many to move away from the aberration and back to the old processes. Improvement in manufacturing has been quick and vast; therefore, introduction of vacuum evaporation technique has been studied and adopted to overcome the problem in the traditional jaggery manufacturing process. Jaggery is still considered as a commodity in India and a rural industry which is presumed to have no advanced techniques of manufacturing. To come out of commodity jaggery need to be branded. To brand jaggery the first step would be to inform (communicate) people about the products special characteristics by which the product would gain awareness.

Vacuum Evaporation Technology for Manufacturing Jaggery

D. B. Agro Industries, Belgaum has adopted this vacuum evaporation technology using steam for indirect heating of sugarcane juice for manufacturing of jaggery. Jaggery is manufactured in hygienically closed stainless-steel vacuum evaporators using steam heat where the temperature does not exceed 80 to 90° C, with a low carbon foot print. Due to the low temperature; all the minerals, polyphenols, flavinoids, vitamins and other nutritional contents present in the sugarcane juice are preserved in the original natural state making them available to the human body. There is no possibility of formation of the heat generated toxic chemicals like acrylamide due to the low temperature unlike as in the traditional process. In the traditional process of jaggery making is in large open mild steel pan which is heated directly using necked fire by wood, tyres, bugger waste, etc., by which the sugarcane juice is subjected to excessive heat much above 700°.

Therefore, vacuum evaporated jaggery is pure and involves high capital cost since importance is given to hygiene and capital investment in machineries.

Advertisement

There are many ways of advertisement like online advertising, newspaper advertising, radio advertising, television advertising, public speaking, door hangers and flyers, event sponsorship and word-of-mouth advertising. Compared to others online advertising is the fastest way to reach the public at large in a short time.

D. B. Agro Industries, Belgaum has developed a website, a Facebook page and has Facebook Advertisements, so that people can reach their website. In the previous study it has been found that concentrating on the advertisements towards a specific kind of target audience will result in more visits. But it has been observed that, people reach to the website have not explored enough (Effectiveness of Facebook advertisements for customer awareness building. A case study at D. B. Agro Industries, Belgaum). To encourage involvement a website page should be well designed, easy to use, appropriate information, optimised for mobile view, clear contact details, product details, etc., so that people explore and gain knowledge. In this research article, an attempt is made to understand how internet can be used for advertising and an informative website for a fast and efficient way to educate the prospective customers.

Google Analytics

D. B. Agro Industries, Belgaum has developed a website (www.dbagroindustries.com) a Facebook page and has deployed Facebook advertisements (Figure 01), so that people can reach their website. The activities on the website is tracked by Google Analytics. Google Analytics is a free Web analytics service that provides statistics and basic analytical tools for search engine optimization and marketing purposes. Google launched the service in November 2005. Google Analytics analysis can identify poorly performing pages with techniques such as funnel visualization, source of visitors (referrers), how long they stayed on the website and their geographical position. It also provides more advanced features, including custom visitor segmentation, etc. The data recorded by Google Analytics for two time spans is furnished in Table 1.

Bounce rate on Google Analytics is a bounce of a single-page session on the website. In Google Analytics, a bounce is calculated specifically as a session that triggers only a single request to the Analytics server, such as when a user opens a single page on your site and then exits without triggering any other requests to the Analytics server during that session. Calculation of bounce rate, single-page sessions divided by all sessions (meaning does not visit any other webpage), or the percentage of all sessions on website in which users viewed only a single page and triggered only a single request to the Analytics server. These single-page sessions have a session duration of zero seconds since there are no subsequent hits after the first one that would let Analytics calculate the length of the session.

Now a question arises "Is a high bounce rate a bad?" If the success of the website depends on users viewing more than one page, then, yes, a high bounce rate is bad. For instance, if the home page is the gateway to the rest of the website (e.g., product pages, checkout process, product information, news, etc.,) and a high percentage of users are viewing only the home page, then high bounce rate is not good. On the other hand, if the website has only a single-page site like a blog, or offer other types of content for which single-page sessions are expected, then a high bounce rate is perfectly normal.

Observation

The aim of the Facebook advertisement by D. B Agro Industries, was to inform and direct people to the website "www.dbagroindustries.com". The advertisement was deployed in two-time spans for 10 days each, 01st to 10th April 2017 was the first span which directed people to the Home page "www.dbagroindustries.com"(Figure02)and 04th to 13thOctober 2017 was the second span which directed people to the page which had information regarding the product, who and how to use, etc. "http://www.dbagroindustries.com/jaggery-for-all-ages/"(Figure03).

For the first span, actual amount spent was INR.4,002.72, target group consisted of both Men and Women with age of 25 years and above from India. The advertisement was viewed for 2,01,751 times. Around 1,63,445 people viewed the advertisement at least once and 4,096 people had clicked and visited "www.dbagroindustries.com" website. Cost per click (CPC) was INR.0.98 and total new page likes achieved 109.

Criteria for the advertisement were refined for the second phase: Location – Living in: India, Age: 25-65+, Placements: on pages: News Feed on desktop computers, Instagram Feed, Third-party Apps and Websites on mobile devices, News Feed on mobile devices or Right column on desktop computers. People who match Interests: Public health, Organic food, World Health Organization, Low-carbohydrate diet, Health & wellness, Food and Environmental Hygiene Department, Organic farming, Women's health, Diet food, Dieting, Healthy diet, Preventive healthcare, Healthcare or Organic product.The most of the people visited the website from Uttar Pradesh, Maharashtra, Gujarat, Madhya Pradesh, Punjab, and so on.Website traffic data for the second phase band width had crossed more than 1.59 GB for the month of April 2017 and the details are:

Sessions (number of active involvement)	: 1,965
Users (who have visited at least once)	: 1,787
Page Views (number of views)	: 3,073
Pages/Session (number of pages per session)	: 1.56
Avg. Session Duration (time of session)	: 36 seconds
Bounce Rate (no interaction with page)	: 81.32%
% New Sessions (first time visitors)	: 90.33%

For the second span, actual amount spent was INR.2,000.00, target group consisted of only women with age of 25 years and above from India. 17,654 times the advertisement was viewed. 12,663 people saw the advertisement at least once. 1,877 people had engaged and visited "www.dbagroindustries.com" website. Cost per click (CPC) was INR.1.07 and total new page likes achieved 27.

Criteria for the advertisement were refined for the second phase: Location – Living in: India (Goa, Karnataka, Maharashtra), Age: 25-65+, Placements: on pages: News Feed on desktop computers, Instagram Feed, Third-party Apps and Websites on mobile devices, News Feed on mobile devices or Right column on desktop computers. People who match Interests: Agribusiness, Cooking, Diet food, Farm, Farmer, Fitness and wellness, Food and Environmental Hygiene Department, Health & wellness, Healthy diet, Healthy food, Healthy Habits, Healthy Lifestyles, HVAC. Living a Healthy Lifestyle, Living Healthy, Low-carbohydrate diet, Natural product, Organic farming, Organic product, Preventive healthcare, Public health, Weight loss (Fitness And wellness), Women's health, World Health Organization, Business and industry, Agriculture, Healthcare, Fitness and wellness, Dieting, Close, Nutrition, Food and drink, Food, Organic food. People visited the website from Maharashtra, Karnataka and Goa states.Website traffic data for the second phase band width had crossed more than 1.50 GB and the details are:

Sessions (number of active involvement)	: 287
Users (who have visited at least once)	: 240
Page Views (number of views)	: 731
Pages/Session (number of pages per session)	: 2.55

Avg. Session Duration (time of session)	:	2 minutes 20 seconds
Bounce Rate (no interaction with page)	:	71.08%
% New Sessions (first time visitors)	:	80.49%

Table 1. Data from Google Analytics

First phase							
Date	Page Views	Bounce Rate	Avg. Session	Sessions	Users	Pages Session	% Sessions
1	465	90.03%	12.34	351	333	1.32	93.45%
2	351	74.73%	54.64	182	173	1.93	89.01%
3	331	74.32%	41.35	183	180	1.81	92.35%
4	319	79.19%	42.91	173	172	1.84	93.06%
5	309	84.72%	50.89	216	200	1.43	87.50%
6	287	80.11%	48.70	181	175	1.59	91.71%
7	286	77.78%	40.88	180	170	1.59	89.44%
8	279	77.59%	28.68	174	172	1.60	89.08%
9	245	80.12%	23.75	166	163	1.48	90.96%
10	201	86.16%	30.51	159	150	1.26	83.65%
	3073	81.32%	35.73	1965	1888	1.56	90.33%
First phase							
Date	Page Views	Bounce Rate	Avg. Session	Sessions	Users	Pages Session	% Sessions
1	196	44.44%	542.25	36	25	5.44	55.56%
2	137	48.39%	237.13	31	27	4.42	74.19%
3	121	65.00%	162.65	40	36	3.03	80.00%
4	61	80.49%	22.00	41	39	1.49	85.37%
5	53	86.67%	45.53	45	44	1.18	95.56%
6	52	78.95%	57.05	19	18	2.74	73.68%
7	44	61.11%	85.11	18	18	2.44	77.78%
8	28	88.00%	23.96	25	24	1.12	80.00%
9	22	75.00%	22.75	16	15	1.38	93.75%
10	17	93.75%	18.31	16	16	1.06	93.75%
	731	71.08%	140.07	287	262	2.55	80.49%

Findings

From the Table 1 the comparative study of effectiveness of the Facebook advertisement was analysed using independent samples t-test. P-values were calculated through SPSS software for two-tailed test and interpreted. Table 2 provides the information on group statistics. Table 3 provides the results of t-test. Table 4 provides information on Page Statistics

Table 2. Group Statistics

Group Statistics					
	Phase	N	Mean	Std. Deviation	Std. Error Mean
Page Views	04	10	307.3000	70.18080	22.19312
	10	10	73.1000	58.79994	18.59417
Sessions	04	10	196.5000	56.32298	17.81089
	10	10	28.7000	11.29454	3.57165
Users	04	10	188.8000	52.20217	16.50778
	10	10	26.2000	10.26104	3.24482
% New Sessions	04	10	0.9000	0.02789	0.00882
	10	10	0.8110	0.12078	0.03819

Table 3. Results of t-test

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
** variances considered		F	Sig.	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
Page Views	Equal variances assumed**	.002	.968	8.089	18	.000	234.200	28.95303	173.37195	295.02805
	Equal variances not assumed			8.089	17.464	.000	234.200	28.95303	173.23797	295.16203
Sessions	Equal variances assumed**	3.360	.083	9.237	18	.000	167.800	18.16547	129.63576	205.96424
	Equal variances not assumed			9.237	9.723	.000	167.800	18.16547	127.16776	208.43224
Users	Equal variances assumed**	3.102	.095	9.665	18	.000	162.600	16.82366	127.25480	197.94520
	Equal variances not assumed			9.665	9.694	.000	162.600	16.82366	124.95377	200.24623
% New Sessions	Equal variances assumed	7.543	.013	2.270	18	.036	.08900	.03920	.00665	.17135
	Equal variances not assumed **			2.270	9.957	.047	.08900	.03920	.00161	.17639

From above t-test calculations, the p-value is <0.001 for pages views, sessions and users, likewise the p-value is <0.05 for % new sessions. We conclude that, there is a significant difference between the mean between the two-time phases. This statistically significant means that, the "improved reach" is unlikely due to chance, but due to the concentrated effort in second phase towards more specific of target audience.

Table 4. Page Statistics

Day	First phase			Second phase		
	Avg. Session Duration (Seconds)	Pages/ Session	Bounce rate	Avg. Session Duration (Seconds)	Pages/ Session	Bounce rate
1	12.34	1.32	90.03%	542.25	5.444	4.44%
2	54.64	1.93	74.73%	237.1	34.42	48.39%
3	41.35	1.81	74.32%	162.65	3.03	65.00%
4	42.91	1.84	79.19%	22.00	1.49	80.49%
5	50.89	1.43	84.72%	45.53	1.18	86.67%
6	48.70	1.59	80.11%	57.05	2.74	78.95%
7	40.88	1.59	77.78%	85.11	2.44	61.11%
8	28.68	1.60	77.59%	23.96	1.12	88.00%
9	23.75	1.48	80.12%	22.75	1.38	75.00%
10	30.51	1.26	86.16%	18.3	11.06	93.75%
	35.73	1.56	81.32%	140.07	2.55	71.08%

From the above statistics, we infer that in the second-time phase visitors to the website had a high involvement. Average session duration the second phase was 140.07 seconds as compared to 35.73 seconds in the first phase. There was 104.34 seconds (almost 1.5 minutes) increase in the average amount of time users spent viewing a specified page or screen, or set of pages or screens. Pages/Session (average page depth) in the second phase was 2.55 pages, but only 1.56 pages in the first phase. There was one-page increase in the average number of pages viewed during a session (repeated views of a single page are counted). The first phase, percentage of single-page sessions in which there was no interaction with the page was 81.32% which is quite high. In the second phase the bounce rate had reduced by a whopping 10.24% at 71.08%. The improved bounce rate was due to posting multiple information on a single web-page related to the product and the benefits which is in stored for the customer, by providing hyperlinks to other pages has reduce the bounce rate and more pages were viewed. The page statistics proves that the second phase visitors had a high involvement in the website.

Discussion & Conclusion

However good the product is, the truth is that no-one will buy it if they believe that they don't need it. One won't persuade anyone that they need to buy what is offered unless people have clearly understood what benefits are in stored for them. The focus of business strategy is, how a firm can communicate their product value to customer and develop advantage strategy. For communicating, business need advertise. To reach large masses in a short time economically online advertisement is the best way. Today's world is digital, and more and more people are equipped with a personal computer, tablet, smart phone, etc. People spend a ridiculous amount of time on social media. Facebook is too huge for a business of any size to ignore. Facebook is where the future customers hang out. Facebook provides a platform which is highly scalable content promotion. Entrepreneurs creating great endeavours basically they want people to know about it. Businesses can target users with Facebook Ads by location, demographics, age, gender, interests, behaviour, etc.

This comparative study exhibited that, the second phase had more involvement. The "http://www.dbagroindustries.com/jaggery-for-all-ages/" page has information that made it interesting for the viewers and provided hyperlinks to appropriate pages. Including hyperlinks in the content is very important.

Reasons to including hyperlinks in the content:

Credibility – Hyperlinks is a new age footnote, like in a publication one must name a source, cite a reference, or refer to another publication, a hyperlink does it in the body of your content.

Increases page views – By referencing other articles or pages on the website, a hyperlink could keep readers on the website for longer time.

Improves search engine optimization – It is very important that another site should link to the website. This will improve the rating of the website pop up when someone searches on Google. Google takes note of this and rewards it by pushing the website rating up.

Assists the Call to Action – When a hyperlink into the 'call to action' button, the chances of a conversion improve. People are lazy creatures. By hyperlinking the contact page, the subscription form or a landing page on the website appear.

Usability – There is a saying, 'If you want something done, do it yourself, right?' This applies to hyperlinks. It's so much easier for the reader to verify the reference material, find related content or answer a call to action when given them something to click on.

People like to 'do' things when they get to a website. Give them a hyperlink to click on and reap the benefits at the same time. Regular use of hyperlinks will improve the SEO and help in propagating knowledge.

Thus, we conclude that Facebook advertisements are very effective for directing the people to a website. Once the person visits the website he/she should be engage so that the basic goal "building customer awareness" is achieved. Therefore, a website should be well designed, easy to use, appropriate information, optimised for mobile view, clear contact details, product details, etc., so that people explore and gain knowledge. Which in turn could lead to sales.

"http://www.dbagroindustries.com/jaggery-for-all-ages/" page has achieved this goal.

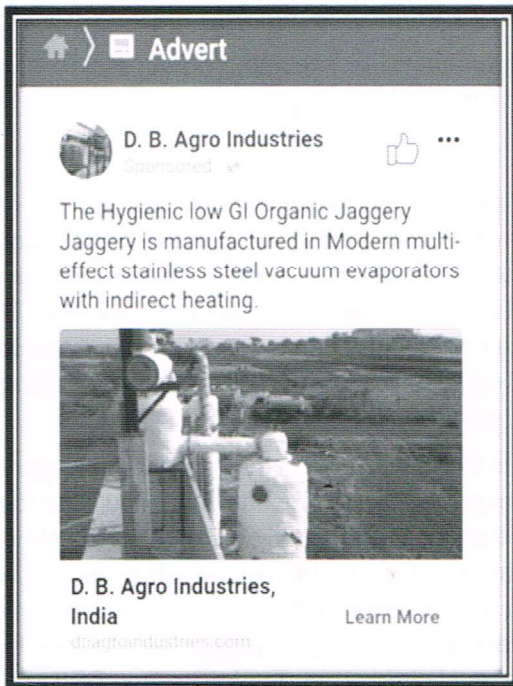
References

1. Arcanjo Francisco P., Pinto Vicente P., Arcanjo Maria R., Amici Márcia R. & Amâncio Olga M. (2009), "Effect of a beverage fortified with evaporated sugarcane juice on haemoglobin levels in preschool children", *Public Health*, Vol. 26(4), pp. 350-35
2. Bohdan Pikas, Gabi Sorrentino, Niagara University (2014), "The effectiveness of online advertising: consumer's perceptions of ads on Facebook, Twitter and YouTube.", *Journal of Applied Business and Economics* vol. 16(4).
3. Christian Dougoud (Sep 2013), "Branding in Asia: "If you are not a brand, you are a commodity", Blog Article.
4. Garrett A. Johnson, Randall A. Lewis & Elmar I. Nubbemeyer, (Sep 2016) "The online display ad effectiveness funnel & carryover: A meta-study of predicted ghost ad experiments", SSRN.
5. Gui Liberali, Glen Urban, Benedict Dellaert, Catherine Tucker, Yakov Bart, Stefan Stremersch (2017), "online advertising effectiveness across media channels and countries", *Theory and Practice in Marketing conference*.
6. Kim Eriksen, Claus Hemmingsen and John Kuada, "Online marketing - new models of advertising?" (2008), Thesis.
7. Kshirsagar, Prof. Vikas (Apr 2012), "A study of jaggery in Maharashtra", *Research Journal for Renaissance in Intellectual Disciplines*, Vol. 1, Issue 1.
8. Nayaka M.A. Harish, Sathisha U.V., Manohar M.P., Chandrashekar K.B. & Dharmesh Shylaja M. (2009), "Cytoprotective and antioxidant activity studies of jaggery sugar", *Food Chemistry*, Vol. 115, pp. 113-118
9. Puja Pawar (2012), "A study of jaggery market in Kolhapur district", Jazan University.
10. Pallavi Mishra (2014), "Rise of online advertising in India: an overview", *J Mass Communication Journalism* 4:1

11. Seyed Rajab Nikhashemi, LailyPaim, SaeidehSharifiFard (2013) "The effectiveness of e-advertisement towards customer purchase intention: Malaysian perspective", IOSR Journal of Business and Management (IOSR-JBM), Volume 10, Issue 3, PP 93-104
12. www.analytics.google.com, website reference
13. www.dbagroindustries.com, website reference
14. www.facebook.com, website reference
15. www.facebook.com/ads/manager/, website reference

Figure 1 - Facebook advertising -

Phase one



Phase two



Figure 2 – Home page



Figure 3 – Jaggery for all ages

