Research on evaluation marketing website based on the buyer's point of view

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ABSTRACT

Which elements that make the marketing website to be more approbated by buyers marketing website as information releasing and sales channels for an E-commerce enterprise should have? Through literature analysis this paper summarizes the basic elements of the marketing website, using exploratory factor analysis and confirmatory analysis theory, based on the buyer's survey, and creates the necessity factor model of a marketing website by the means of the statistical analysis software spss19.0, and provides empirical validation of the model by means of a secondary survey methodology and analysis software, and at last gives some guiding recommendations for e-commerce enterprises building a marketing-based website.

Keywords:Marketing Website; Evaluation; Exploratory Factor Analysis; Literature Analysis; Buyer's Point of View
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INTRODUCTION

In order to determine the evaluation elements of marketing website, the method of literature analysis is used, past literatures as the research object, striving to collect all evaluation elements which are the study basis for this paper from the past literatures.The literature analysis is a scientific knowledge method which refers to collect, identify, organize and study the past literatures. It is an economical and efficient information gathering method by a systematic analysis of the existing literature on work-related information[1]. Generally it is used to collect raw information, and to prepare the preliminary draft of task list. It is also a systematic, objective and quantitative description method to clarity dissemination contents, which is applicable to every valuable literature that can be recorded and saved. It is an undisturbed research method, by using other researchers' information collected by other research purposes, in order to achieve own purpose and which variable extracts and attribute classifying are carried out on the basis of the existing literatures.

1The Selection of the Basic Elements
To consider as much as possible to expand the selection and as far as the basic elements, in the process of basic elements selected, China Journal "electronic technology and information science" and "economic management", "marketing type" website evaluation, website optimization, internet marketing, buyer & Evaluation keyword retrieval. Read these abstracts to determine network marketing website evaluation related 65 articles.

After reading these 65 articles one by one, screening in accordance with the following principles:
(1) network marketing website evaluation related;(2) the specific evaluation criteria or affect the elements of the site evaluation;(3) Referred to the Website Without Making an Industry Distinction.

After screening we got 26 domestic literature and summed up 93 elements for website evaluation by weight and complement each other. By five experts to further evaluate the importance of the elements of these 93 subjective judgments, weeding out the unimportant items. Excluding elements bas ed on the following reasons[2]:(1) it is not

a direct perception from the buyer's point of view to the elements;(2) it is not on the basic elements of the site evaluation;(3) it is distant for the evaluation of marketing-based website.

Finally, we got 32 impact factors. All 32 elements constitute the basic elements of the marketing-type website evaluation, such as, the site whether is direct way of communicating or not, whether the site open speed is quick or not.

2 Model Proposed

2.1 Exploratory Pactor Analysis and Confirmatory Factor Analysis

Exploratory factor analysis is not known of the impact factors in advance, fully relies on the information and data to certain principles of factor analysis, the last of the process gets factors, and its main purpose is to find out the impact factor of the observed variables number, as well as the degree of correlation between the various factors and observed variables. Confirmatory factor analysis is the full use of prior information in the case of known factors assumed structure effect testing collected datum, which tests predefined factor model to fit the actual datum.

In this paper, a common combination of exploratory factor analysis and confirmatory factor analysis is applied. First, the exploratory factor analysis is used to model and then confirmatory factor analysis is used to verify the model.

2.2 Questionnaire Design and Data Acquisition

Obtain data in this article uses the form of a questionnaire survey with a low cost, simple operation, easy controllability. The questionnaire contains 32 influencing factors analyzed earlier survey questions using Likert scale forms, which is about the necessity of the basic elements of the site evaluation from 1 score to 5 score: complete unnecessary, necessity not obvious, general necessity, comparative necessary, very necessary.

The survey first pre-survey of 20 users. For a more comprehensive test data, 5 of the 20 users are selected from the group consisting of E-commerce and Internet marketing researchers. 10 from E-commerce professional students, the rest 5 is no or very little contact with the E-commerce, in order to facilitate a more comprehensive evaluation of the pre-test questionnaire[3]. After the test completed, the questionnaire is amended in part:

(1) The elements adjustment: remove some obscure necessity factors (average necessity degree of less than 3) and merge too trivial elements;

(2) Improving the terms: rewrite too specialized words to adapt ordinary respondents answer.

After adjustment, a questionnaire contains 15 questions, for convenient statistics, questionnaire 15 elements denoted Xi (i = 1,2, ... 13). Then questionnaire adds six individual survey option, which is the formal questionnaire.

Table 1. the necessity elements of the marketing website in the questionnaire

Element number	Element describes
X1	Online communication function
X2	Good navigation
X3	Search engine
X4	Website system is stable and reliable
X5	Logistics tracking
X6	Online payment
X7	Not pop-up window or advertisements without permission
X8	Not be forced to install plug-ins or toolbars
X9	Page titles and content have a higher correlation
X10	The commodity assessment and evaluation information browsing
X11	The site's content update
X12	Customer inquiries, complaints and timely feedback
X13	Set FAQ
X14	Provide valuable service
X15	Pages set appropriate keywords

In October 2012, using simple random sampling facing the college student consumers of online shopping experience, the first survey was carried out. To guarantee the validity of the data analysis, the sample size is 150. In this survey, I issued 200 written questionnaires to the Hebei Normal University of Finance and Economics College students and also 87 questionnaires were collected through the professional survey website. Screening

questionnaire and 165 valid questionnaires obtained, 97 were copies of the written questionnaire, 68 of the electronic questionnaire.

In order to ensure respondents fully understanding the marketing websites, respondents were asked to have the shopping experience more than 2 times. In order to avoid the shopping experience of the respondents distinguished from psychological feeling affecting the outcome, the distinguish about whether the shopping experience or not was by the appropriate option in the questionnaire for screening, which resulted valid questionnaires less.[4]

The personal information from the questionnaire can be learned that the survey participants have an average net age of 3.58 years, the average time spent online per week is 15.36 hours, that the more skilled network applications are able to better understand the questionnaire involved the meaning of the issues and options.[5]

The questionnaire results carry out reliability analysis, and Cronbach's alpha coefficient is 0.890, which is a very good scale reliability ($\alpha > 0.8$), so the reliability of the study is very good.[6]

2.3 Data Analysis and Modeling
The questionnaire datum analysis uses SPSS19.0 software, applying exploratory factor analysis method. Which factors extracted using principal component method, factor eigenvalues greater than 1; the factor rotation using varimax method, factor score over 0.5. The datum test sufficiency before extracting factors. The sample adequacy KMO test coefficient is 0.833, the sample distribution Battlett spherical test card party value is 3681.012, 153 degrees of freedom, the

Table 2

Extracted factors	Questionnaire Options	The explanation strength (%)	The cumulative xplanation strength (%)	αcoefficient
Factor1	X1 X12 X13	43.924	43.924	0.826
Factor2	X5 X6 X10 X14	21.525	65.449	0.817
Factor3	X2 X3 X9	11.126	76.575	0.792
Factor4	X4 X7 X8	8.901	85.476	0.789
Factor5	X15	2.790	88.266	0.523

Significance level of 0, prove to be suitable for factor analysis. Obtain 5 factors through factor analysis. After rotation get as follows (see Table 2):

Five factors in the table 2 check consistency. Factor 1 to factor 4 alpha coefficients are higher than 0.7, which can be considered to have high internal consistency, and they are acceptable. Factor 5 coefficient is small, the lack of internal consistency.

2.4 The Necessity Factor Model of the Marketing Website
13 basic elements divides into four factor through exploratory factor analysis.From table 2, factor 1 contains X1, X12 X13 three options, corresponding to the specific problem of three options: X1: Online communication function; X12: customer inquiries, complaints timely feedback; X13: set FAQ; three options related to a common theme is "user interaction through the website with the Purchaser. Therefore this factor names" interactivity ".

Factor 2 contains the X5, X6, X10, X14 four options, the corresponding specific issues of the four options: X5: logistics tracking; X6: online payment function; X10: Goods evaluation and assessment information browsing; X14: integrated services provide a valuable extension, the first three and the fourth repeat, removing the fourth X14. The theme is "the site extending out comprehensive service functions, referred to as" extensibility ".

Factor 3 contains X2, X3, X11 three options, corresponding to the specific issues are: X2: good navigation; X3: search engine; X11: the title and content of the page has a high correlation. The common theme is "the buyer through these can retrieve the information they need", and it is defined as "findability"[7].

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Factor 4 contains X4, and X7, X8 three options, the corresponding three options: X4: website system stable and reliable; X7: not a pop-up window or advertisements without permission; X8: do not be forced to install the plugin or toolbar. The common theme of the three involves "website should not bring any additional psychological or system security burden to the user", and the name is "relief "[8].

Factor 5 contains only X18: "website set appropriate keywords". Since the object of the investigation is more oriented buyer, for the buyer more concerned about is how to find product information, how to do the buyer exchanges as well as security problems. Whether the website properly sets keywords or not, which is not cared much about by the buyers.

The four factors explained 85.476% of the total variance, which can be considered to explain the more information. Thereby the four factors model of marketing website evaluation of the buyer's view can be built (see Table 3)

Table 3 Buyer's view marketing website constitutes necessity elements

Impact Factor	Basic elements
Interactivity	Online communication functionCustomer inquiries, complaints and timely feedback (each page provide navigationSet FAQ
Extensibility	The commodity assessment and evaluation information browsing Logistics tracking Provide online payment function.
Findability	Good navigationSearch engineThe page title has a higher correlation with the content.
relief	Website system is stable and reliableNot pop-up window or advertisements without permission Not be forced to install plug-ins or toolbars

3Model Validation

3.1 The Second Questionnaire

The marketing website factor model from buyer's view is defined, in order to validate the model, once again preparing questionnaire investigation. The questionnaire contains 12 issues options as well as 6 individual information option. 12 options are the table 2 that contain the basic elements of the model shown. The number of questionnaires for statistical options is Yi (i = 1,2,3 ...... 12) (see Table 4). Found by the last survey, the network valid response rate to the questionnaire is high,   so this issued questionnaires are all over the network.

Questionnaires completed are released by a professional questionnaire website, 136 copies received of valid questionnaires, 23 invalid questionnaires, and the effective rate is 85.5%. After analysis of the results reliability of the questionnaires, Cronbach's coefficient is 0.896, greater than 0.8, it is acceptable, so that the survey reliability is very good.

Table 4 The second survey involves the necessity elements of marketing website

Number	Basic elements
Y1	Online communication function
Y2	Customer inquiries, complaintsand timely feedback
Y3	Set FAQ
Y4	The commodity assessmentand evaluation information browsing
Y5	Logistics tracking
Y6	Provide online payment function.
Y7	Good navigation
Y8	Search engine
Y9	Page titlesand content have a higher correlation
Y10	Website system is stable and reliable
Y11	Not pop-up windowor advertisements without permission
Y12	Not be forced toinstall plug-ins or toolbars

3.2 Data Analysis

In order to detect whether the above model fit the datum, comparing the reproduction covariance matrix and the difference of the sample covariance matrix is needed. This difference is one that can be indicated by a fitting index. Based on the complete reflection of the model fitting degree, this paper selects RMSEA, CFI, $\chi2$/df, three indices.

This is because: Since this collected data sample of smaller capacity, the CFI index just by the system impact of the sample size is small, its value above 0.9 is appropriate; the index $\chi2$/df, degrees of freedom can be taken into account, at the same time also has a relatively small sample size, as long as its value is less than 3; RMSEA also consistent with this reality, less affected by the sample size, its value is not more than 0.1 to meet the requirements.
By analysis software AMOS17, with Table 4 Model analysis, the following results are obtained (Table 5):

Table 5 The model fitting performance statistics

Fit Measure	RMSEA	CFI	χ^2	df	χ^2/df
Your Models	0.069	0.935	159.335	78	2.043

From Table 5 data RMSEA value of 0.069 is less than 0.1, the CFI value 0.935 is greater than 0.9, χ^2/df value of 2.043 is less than 3, so the necessity element model of marketing website from buyer's view is acceptable.

CONCLUSION

In truth analysis method based on summary, analysis and testing the paper constructed the necessity element factor model of marketing website in terms of purchaser, this model provide some guidance for internet marketing enterprises to construct marketing websites. I give the following recommendations based on the research of the paper:

(1)Using the Interactivity Feature of The Internet to Commucate to Buyers Fully.To do this well the marketing enterprises should start with making full use of live information communication tools, then add these tools in their own websites, such as: QICQ of Tencent, Ali Wangwang and so on. The marketing websites also should pay more attention to the online complaining of buyers, they should respond to buyer's complaining in time to resolve their some actual problems. The marketing websites should set relatively perfect FAQ to satisfy visiting users, such as selecting forms of logistics and payments, which are usual questions that a user may met. All there are services provided by marketing websites for buyers based on good communication between the buyers and sellers, and thinking highly of the buyers.

(2) Providing purchaser extended integrated servicesFor E-commerce enterprises marketing websites are not only windows for information release, not only channels for sale products, more importantly E-commerce enterprises should extend their services and expand the connotation of the products provided by the websites in the point view of buyers, which includes: providing logistics tracking for clients, online payment. These services could make clients more convenient and satisfied.

(3) Making Users to Locate The Target They Searched Rapidly.The users login marketing websites in order to get some products and services. A good website should add the function of information rapid searching. The "web site navigation" and "in website search" can help users locate the information they wanted, which is helpful for users to get their products and enjoy services better, moreover the high interaction between the webpage title and the content is very helpful for users to locate accurately the products and services that they searched, then realize "direct finding" what they need, which reduces the users' trouble of multiple filtering the targets [9].

(4)Taking Care of Users' Security Consideration and Psychological FeaturesMarketing websites are the media and windows for clients, so the steadiness and security of the website is very important. The operators of the websites should try their best to enhance the steadiness of website. A very important characteristic of network media is that user can visit a website freely. It will take bad effect on a website if an user is always disturbed when he/she visit the website. So the marketing websites should try their best to reduce some unnecessary disturbance to users. The marketing websites could not think themselves clever to compulsorily install the plugin or tool bar to users' computers, otherwise which will be just the opposite to what they wish..

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