EMPIRICAL ANALYSIS TO STUDY THE PERCEIVED INTERACTIVITY AND ATTITUDE TOWARD WEBSITE

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ABSTRACT

Commercial websites are pages or related documents that are used mainly for advertising products and services from a web domain. Most commercial websites are owned by specific companies and their purpose is to sell and generate revenue for the company. Primary data has been collected for the empirical study by using the Convenience non probability sampling technique. This empirical study pioneered in conceptualizing and measuring perceived interactivity and attitude toward the Web site. These two constructs are extremely important to Web advertising and marketing, and they will contribute significantly to the study of on-line consumer behavior. By grounding the study of interactivity in the user's perspective, perceived interactivity serves as a clear-cut variable which captures the essence of consumers' interactions in computer-mediated environments.
Key Note: Advertiser, Attitude, Consumer, Information, Marketer, Computer.

INTRODUCTION:

With the continued growth of the Web as a viable advertising medium (Ducoffe 1996; Berthon, Pitt and Watson 1996) and marketing channel (Palmer and Griffith 1998), it has become increasingly important for advertisers to know the effectiveness of their Websites (Dreze and Zufryden 1997; Eigmey 1997). Although there is no consensus yet as to how to measure Web site effectiveness, it can be reasonably argued that attitude toward Website will serve as a useful indicator. This indicator is of vital importance to those advertisers with building brand equity as their primary business objective of establishing Websites. Web direct marketers may be less interested in knowing consumers' attitude toward their Websites as long as they can obtain direct sales or leads. As the Web evolves and matures, Web direct marketers will soon realize that Websites allow for faster and continual interactions between consumers and advertisers. Such interactions will definitely influence consumers' attitude toward Website, which, in turn, Website could sway consumers' action the clicking of the "Submit" button. Thus, attitude toward Website appears to be invaluable to all advertisers and deserves more attention. As such, it would be important to examine what factors might influence attitude toward Website. Since the uniqueness of the Web lies in its interactivity, it might be interesting to investigate how interactivity affects attitude toward Website. This is because interactivity is capable of enabling real-time, two-way and fast interactions between consumers and advertisers. With interactive technologies rapidly transforming the marketplace and our society (Roland and Varik 1996; Kannan, Chang and Whinston 1998) (i.e., the adoption of the Internet and the World Wide Web), the once passive consumers are empowered to become active and interactive. However, interactive technologies are necessary, but not sufficient for consumers to be active and interactive.

REVIEW OF LITERATURE

Although interactivity is almost assumed to be the inherent and defining characteristics of the Web, it is *perceived interactivity* by consumers of a Website, not its *actual interactivity* enabled by

interactive technologies, that offers critical information for Web marketing. Perceived interactivity lies at the center of various interactions between consumers and advertisers, consumers and messages and among consumers themselves. As these interactions affects attitude toward Website, it can be reasonably argued that there should exist a relationship between perceived interactivity and attitude toward Website.

Perceived Interactivity

The term "interactivity" had been widely used in different disciplines long before the Web came into being. Interactivity is an assumed attribute of interpersonal communication (Morris and Ogan, 1996). With the rapid rise of the Web as a commercial medium, interactivity emerges as a unique characteristic distinguishing the Web from other traditional media. Many scholars from different disciplines have defined interactivity from different angles (William, Roger and Rice, 1988; Rafaeli, 1988; Steuer 1992; Hoffman and Novak, 1995; Aldersey-Williams, 1996; Milheim, 1996; Kirsch, 1997; Rafaeli and Sudweeks 1998; Pavlik, 1997 and 1998; Ha and James, 1998). Cho and Leckenby (1997) classify interactivity as three types: (1) interaction between users and messages; (2) interaction between man and machine; (3) interaction between senders and receivers. This classification sheds light on interactivity by cutting across disciplinary boundaries. But it may be too broad to allow interactivity to be the distinguishing characteristic of interactive media as represented by the Web. For example, some would argue magazines have interactivity. A reader of *Reader's Digest* (receiver) could have an interaction with the editor (sender). The reader can also interact with messages by flipping through pages just as a Web user can click hyperlinks on Web pages. A more productive way to interactivity should be developed so that the Web truly stands out as an interactive medium different than traditional passive media. Some authors have hinted a fruitful direction to explore interactivity from consumers' perspective. It is more important to ask the questions of "Do users perceive any interactivity of a medium?" and "To what extent do users perceive its interactivity?" than ask the questions of "Does a medium have interactivity?" and "How much interactivity does the medium have?" Steuer (1992) defines interactivity as "the extent to which users can participate in modifying the form and content of a mediated environment in real time" (p.84). This definition takes into consideration the important role of users in conceptualizing interactivity. He proposes *speed of interaction, range and mapping* as three major factors affecting interactivity. Speed of interaction is also referred as response time. The more instantaneous a user perceives their actions in a mediated environment, the higher he or she perceives interactivity. Range is concerned with how many options a user has in making changes in the mediated environment. Mapping deals with "the way in which human actions are connected to actions within a mediated environment" (p.86). These three factors can well be applied to the computer-mediated environment like the Web. Speed of interaction and range of the Web seem to suggest how responsive users perceive the Web as a system to their actions. In contrast, mapping seems to indicate how users perceive themselves as controllers of their actions in the computer-mediated environment. That is, how do they perceive their capability of navigating through cyberspace? Newhagen et al (1995) appears to be the first one who proposed the concept of perceived interactivity. He conceptualized perceived interactivity based on efficacy which is "a two-dimensional construct: internally based self-efficacy and externallybased system efficacy" (p.166). For a Web user, internally-based efficacy can be translated into his or her perceived control over where s/he is and where s/he is going, while externally-based efficacy can be rendered into his or her sense of how responsive the Web as a system to his or her actions. Web users find their internally-based efficacy in their navigability through cyberspace. Cyberspace navigation includes "virtual movement through cognitive space made up of data and the knowledge emerging from those data" (Whitaker 1998, p.63). Web usability research reveals that easy navigation is critical to the success of a Website (Kanerva et al 1998). In contrast, Web users' externally-based

efficacy finds direct expression in how responsive a system external to themselves is toward their actions. The system may consist of a machine, messages, and an imagined receiver. Therefore, the perceived speed and amount of any change a Web user can produce will directly influence the level of responsiveness.

Attitude toward Websites

There are literally hundreds of definitions for the term ***attitude*** (Heath and Gaeth 1994). Attitude has become an everlasting interest of study for social scientists. The digital world in which we are is no exception. Heath and Gaeth (1994) give a state-ofthe- art summary of definitions and example measures of key constructs associated with attitude. However, they do not elaborate on issues surrounding attitude, and they choose to adopt one-component view of attitude as "a general and enduring (consistent over time) negative or positive evaluation of a person, object, or issue" (p.129). Zanna and Rempel (1988), however, discuss three critical issues: (1) one-component versus three component view of attitude, (2) the extent to which an attitude is dispositional or episodic in nature, and (3) the relationship between affect and evaluation. After discussing these three issues, they conclude that an attitude should be defined as "the categorization of a stimulus object along an evaluative dimension based upon, or generated from, three general classes of information: (1) cognitive information, (2) affective/emotional information, and/or (3) information concerning past behaviors or behavioral intentions" (p.319). This definition helps resolve the three issues surrounding attitude, and is more flexible and adaptable to various situations. It fits the Web well for two reasons. First of all, the Web is changing rapidly and a firm's Website in this week might be different from that in the next week. A Web site is a multimedia product, which could contain audio, video, graphics and texts. More importantly, a Web site allows users to interact with it in real time. A well-known study by Millward Brown has proved that banner ads have resulted in attitudinal shifts even without click-through (Briggs and Hollis 1997).

SCOPE AND SIGNIFICANCE OF THE STUDY

Two major commercial Web sites were chosen to serve as stimuli: Myntra.com Cards and Jabong.com Web sites. There are three reasons for choosing this product category, in which three major companies dominate 82% of the business. First, Myntra.com and Jabong.com are two biggest giants with a market share of 40% and 35% respectively, competing fiercely against each in virtual world. Also, perhaps most importantly, Myntra.com Web site appears to take the lead in the Web marketing by creating interactivity on its site. It has become hit among online shopping lovers looking for various products". It can be reasonably concluded that there is a big difference in terms of actual interactivity between Myntra.com and Jabong.com sites. Finally, Myntra.com has a distinctive advantage in brand equity over Jabong.com and consumers are likely to hold a more favorable attitude toward the former than the latter. It becomes more interesting to compare their Websites to determine whether the Myntra.com has a competitive edge over the Jabong.com in this digital area. With the growth of the Web as a marketing medium, it has become increasingly important for advertisers to gain a favorable attitude toward their Websites among their target customers. An empirical study was conducted to examine the relationship between perceived interactivity and attitude toward Website.

OBJECTIVES OF THE STUDY

In order to achieve the results following objectives have been framed:
- ✓ To study the perceived interactivity of commercial websites.
- ✓ To study the attitude towards commercial websites.
- ✓ To examine the trustworthiness and users believe.
- ✓ To study the appealing and likability of commercial websites.

RESEARCH METHODOLOGY

Research method

In general two types of research methods are being used quantitative and qualitative. We would like to go for quantitative method in our research as it is a precise way.

Sample size and design

The population for the research is Punjabi University students and people visiting university cafeteria and library and keeping in view the limitation of time and resources writers have decided to take the sample of 100 students and people visiting university cafeteria and library. Questionnaires were distributed both by online and by hand to respondents and enough time given to respondents to fill the questionnaire to reduce sampling error. A convenience sampling technique has been used in this study. As stated by Bryman and Bell (2007) there are three types of non probability sampling i.e. Convenience Sampling, snowball sampling and quota sampling. According to Bryman and Bell (2007) Convenience sample is one that is conveniently available to the researcher with its goodness of accessibility.

Questionnaire design

The questionnaire has been carefully designed to meet the requirements of the research. The questions are taken from previous literature with a view to validate the research more and some of the questions are self structured to cover the diversity of research problems.

Data collection

When it comes to data collection there are two methods in general used by researchers to collect data, primary and secondary method. We have used the primary data collection method as we have used questionnaire to collect the information from consumers as what are the factors that influence users to visit commercial websites. As our study covers Patiala online users so we feel it would be easy for us to distribute the questionnaire and then analyze the situation.

Data analysis

The tool that was use for our data analysis is a 5 Point Likert Scale (1=Strongly Disagree, 2=Disagree, 3=Uncertain / Not applicable, 4=agree, 5=Strongly Agree). The Likert scale is a scale that is commonly used for questionnaires, and is mostly used in survey research. The advantage of using likert scale can be to create interest among respondents as according to Robson (1993) as likert scale can be interesting for users and they often enjoy completing a scale like this.

DATA INTERPRETATION AND ANALYSIS

1. Do you think the site is trustworthy?
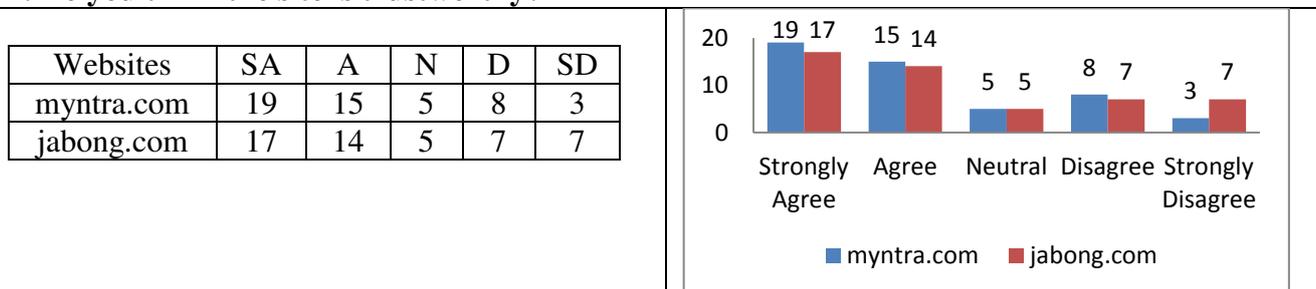
Websites	SA	A	N	D	SD
myntra.com	19	15	5	8	3
jabong.com	17	14	5	7	7

According to 50 respondents of myntra.com 19 of them strongly agree that they are trustworthy, 15 of them agree that they are trustworthy, 5 of them are neutral that they are trustworthy, 8 of them disagree that they are trust worthy and rest 3 of them strongly disagree that they are trustworthy. According to 50 respondents of jabong.com 17 of them strongly agree that they are trustworthy, 14 of them agree that they are trustworthy, 5 of them are neutral that they are trustworthy, 7 of them disagree that they are trust worthy and rest 7 of them strongly disagree that they are trustworthy.

2. Do you think the site is honest?

Websites	SA	A	N	D	SD
Myntra.com	25	15	3	7	0
Jabong.com	21	12	3	5	9
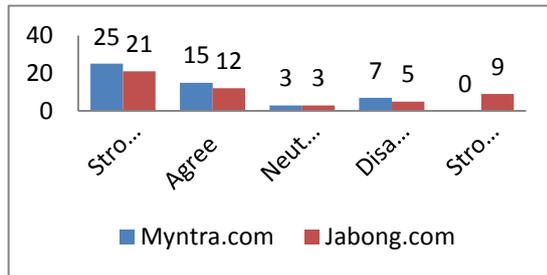
According to 50 respondents of myntra.com 25 of them strongly agree that this site is honest, 15 of them agree that this site is honest, 3 of them are neutral that this site is honest, and rest 7 of them disagree that this site is honest. According to 50 respondents of myntra.com 21 of them strongly agree that this site is honest, 12 of them agree that this site is honest, 3 of them are neutral that this site is honest, and 5 of them disagree 25 of them strongly agree that this site is honest, 15 of them agree that this site is honest, 3 of them are neutral that this site is honest, and rest 7 of them disagree that this site is honest rest 9 of them disagree that this site is honest.
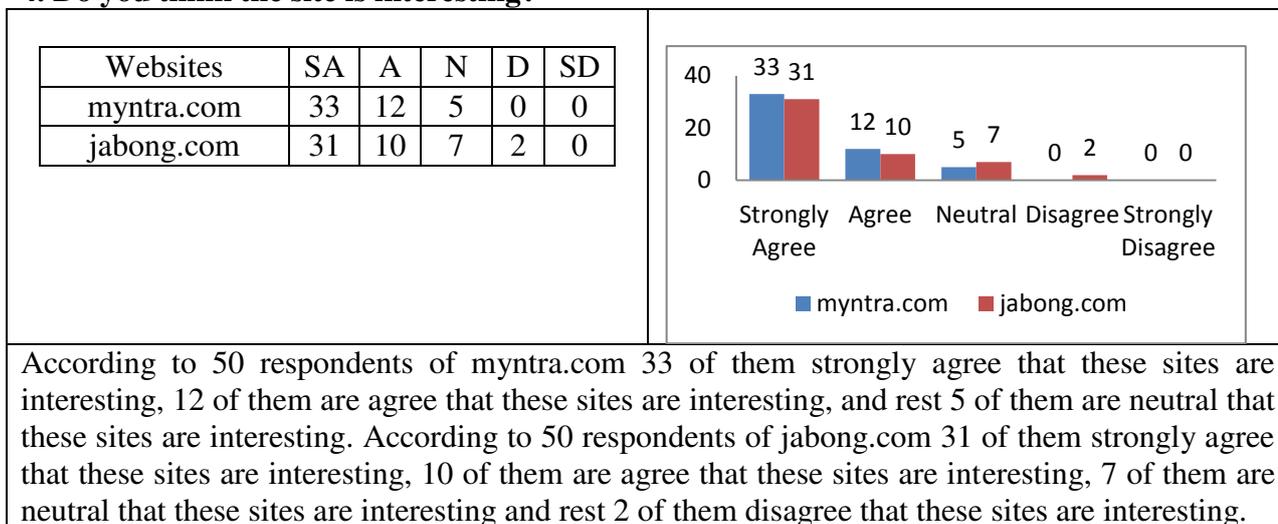
3. Do you think the site is believable?

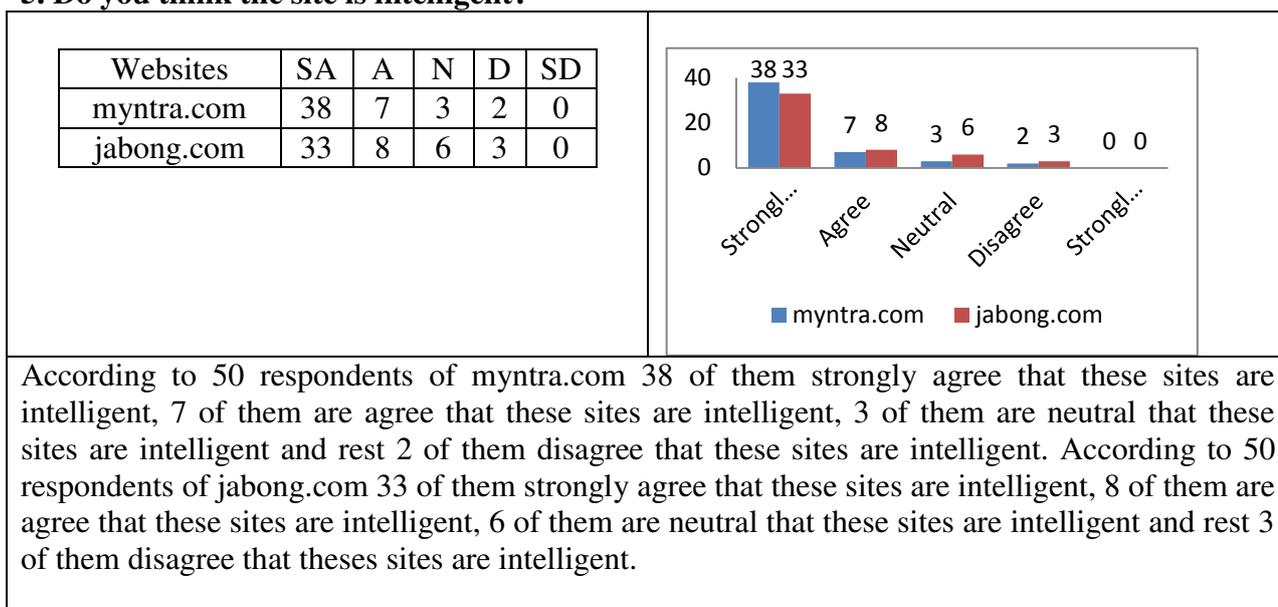| Websites	SA	A	N	D	SD
myntra.com	17	13	3	7	10
jabong.com	15	14	9	7	5
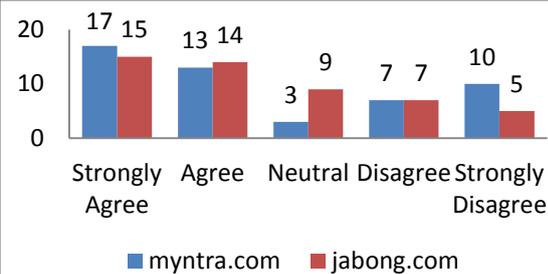
According to 50 respondents of myntra.com 17 of them strongly agree that they believe on this site, 13 of them agree that they believe on this site, 3 of them are neutral that they believe on this site, 7 of them disagree that they believe on this site and rest 10 of them strongly disagree that they believe on this site. According to 50 respondents of jabong.com 15 of them strongly agree that they believe on this site, 14 of them agree that they believe on this site, 9 of them are neutral that they believe on this site, 7 of them disagree that they believe on this site and rest 5 of them strongly disagree that they believe on this site.
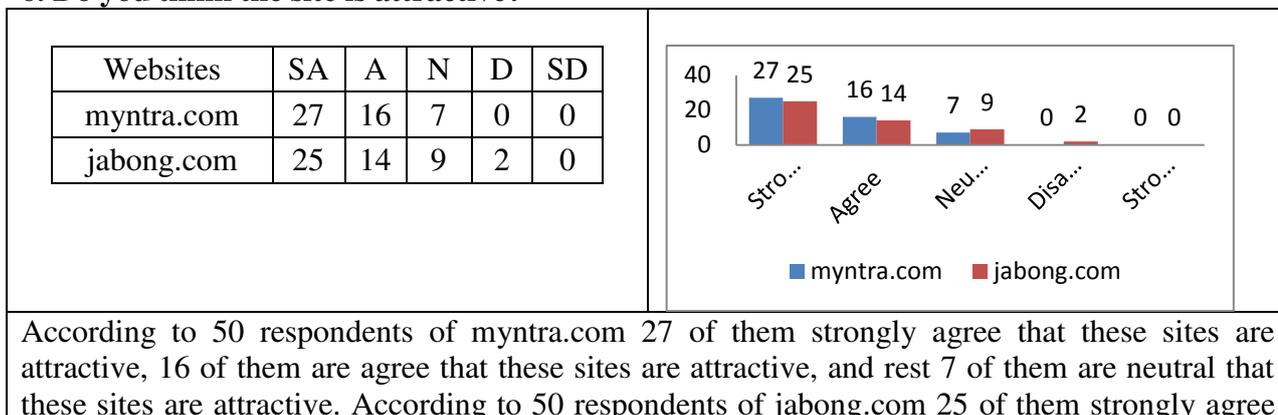
4. Do you think the site is interesting?

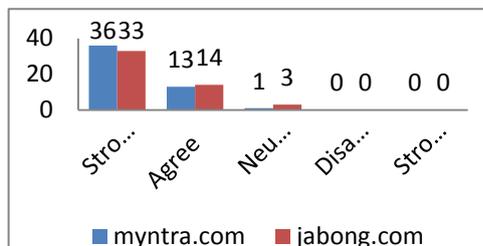| Websites	SA	A	N	D	SD
myntra.com	33	12	5	0	0
jabong.com	31	10	7	2	0

According to 50 respondents of myntra.com 33 of them strongly agree that these sites are interesting, 12 of them are agree that these sites are interesting, and rest 5 of them are neutral that these sites are interesting. According to 50 respondents of jabong.com 31 of them strongly agree that these sites are interesting, 10 of them are agree that these sites are interesting, 7 of them are neutral that these sites are interesting and rest 2 of them disagree that these sites are interesting.

5. Do you think the site is intelligent?

Websites	SA	A	N	D	SD
myntra.com	38	7	3	2	0
jabong.com	33	8	6	3	0

According to 50 respondents of myntra.com 38 of them strongly agree that these sites are intelligent, 7 of them are agree that these sites are intelligent, 3 of them are neutral that these sites are intelligent and rest 2 of them disagree that these sites are intelligent. According to 50 respondents of jabong.com 33 of them strongly agree that these sites are intelligent, 8 of them are agree that these sites are intelligent, 6 of them are neutral that these sites are intelligent and rest 3 of them disagree that theses sites are intelligent.

6. Do you think the site is attractive?

Websites	SA	A	N	D	SD
myntra.com	27	16	7	0	0
jabong.com	25	14	9	2	0

According to 50 respondents of myntra.com 27 of them strongly agree that these sites are attractive, 16 of them are agree that these sites are attractive, and rest 7 of them are neutral that these sites are attractive. According to 50 respondents of jabong.com 25 of them strongly agree

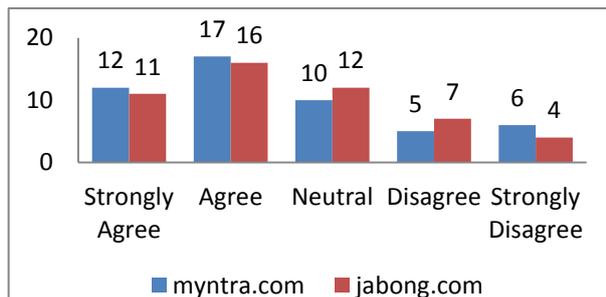|	
that these sites are attractive, 14 of them are agree that these sites are attractive, 9 of them are neutral that these sites are attractive and rest 2 of them disagree that these sites are attractive.	

7. Do you think the site is likeable?

Websites	SA	A	N	D	SD
myntra.com	36	13	1	0	0
jabong.com	33	14	3	0	0

According to 50 respondents of myntra.com 36 of them strongly agree that these sites are likable, 13 of them are agree that these sites are likable, and rest 1 of them are neutral that these sites are likable. According to 50 respondents of jabong.com 33 of them strongly agree that these sites are likable, 14 of them are agree that these sites are likable, and rest 3 of them are neutral that these sites are likable.

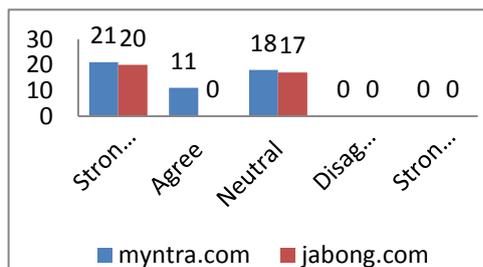## 8. Do you think the site is appealing?

Websites	SA	A	N	D	SD
myntra.com	12	17	10	5	6
jabong.com	11	16	12	7	4

According to 50 respondents of myntra.com 12 of them strongly agree that these sites are appealing, 17 of them are agree that these sites are appealing, 10 of them are neutral that these sites are appealing, 5 of them are disagree that these sites are appealing and rest 6 of them are strongly disagree that these sites are appealing. According to 50 respondents of jabong.com 11 of them strongly agree that these sites are appealing, 16 of them are agree that these sites are appealing, 12 of them are neutral that these sites are appealing, 7 of them are disagree that these sites are appealing and rest 4 of them are strongly disagree that these sites are appealing.

9. Do you think the site is entertaining?

| Websites	SA	A	N	D	SD
myntra.com	21	11	18	0	0
jabong.com	20	13	17	0	0

According to 50 respondents of myntra.com 21 of them strongly agree that these sites are

entertaining, 11 of them are agree that these sites are entertaining, 10 of them are neutral that these sites are entertaining, and rest 18 of them are disagree that these sites are entertaining. According to 50 respondents of jabong.com 20 of them strongly agree that these sites are entertaining, and rest 17 of them are neutral that these sites are entertaining, 5 of them are disagree that these sites are entertaining and rest 6 of them are strongly disagree that these sites are entertaining.

## 10. Do you think the site is stimulating?

Websites	SA	A	N	D	SD
myntra.com	12	5	18	9	6
jabong.com	11	9	17	8	5
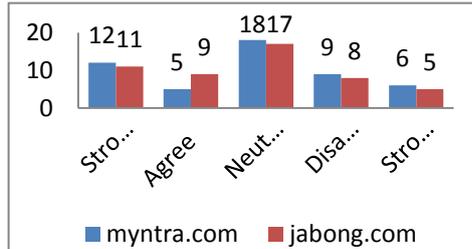
According to 50 respondents of myntra.com 12 of them strongly agree that these sites are stimulating, 5 of them are agree that these sites are stimulating, 18 of them are neutral that these sites are stimulating, 9 of them are disagree that these sites are stimulating and rest 6 of them are strongly disagree that these sites are stimulating. According to 50 respondents of jabong.com 11 of them strongly agree that these sites are stimulating, 9 of them are agree that these sites are stimulating, 17 of them are neutral that these sites are stimulating, 8 of them are disagree that these sites are stimulating and rest 5 of them are strongly disagree that these sites are stimulating.

11. Would you bookmark as your favorite site

| Websites	SA	A	N	D	SD
myntra.com	10	16	13	5	6
jabong.com	9	14	15	7	5
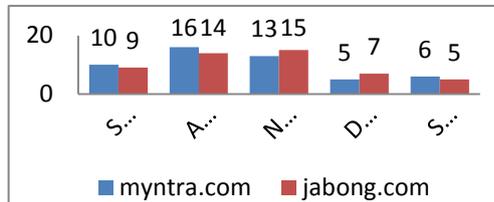
According to 50 respondents of myntra.com 10 of them strongly agree that they bookmark them as their favorite site, 16 of them are agree that they bookmark them as their favorite site, 13 of them are neutral that they bookmark them as their favorite site, 5 of them are disagree that they bookmark them as their favorite site and rest 6 of them are strongly disagree that they bookmark them as their favorite site. According to 50 respondents of jabong.com 9 of them strongly agree that they bookmark them as their favorite site, 14 of them are agree that they bookmark them as their favorite site, 15 of them are neutral that they bookmark them as their favorite site, 7 of them are disagree that they bookmark them as their favorite site and rest 5 of them are strongly disagree that they bookmark them as their favorite site

12. Would you recommend this site to your friends?
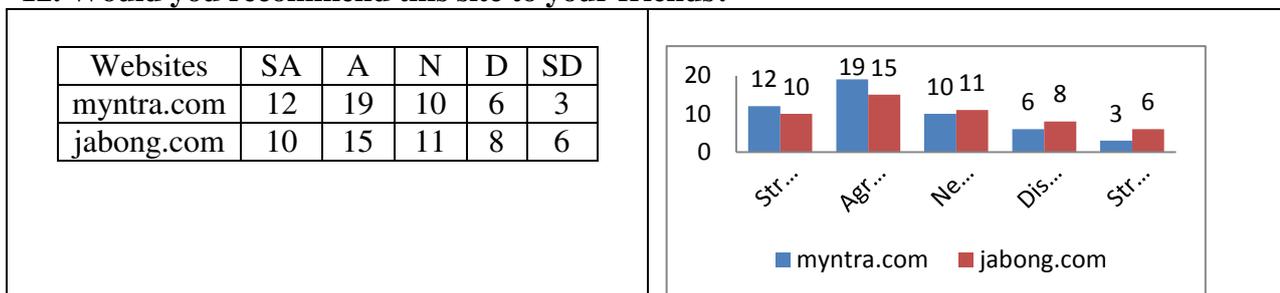
| Websites	SA	A	N	D	SD
myntra.com	12	19	10	6	3
jabong.com	10	15	11	8	6

According to 50 respondents of myntra.com 12 of them strongly agree that they would recommend this site their friends, 19 of them are agree that they would recommend this site their friends, 10 of them are neutral that they would recommend this site their friends, 6 of them are disagree that that they would not recommend this site their friends and rest 3 of them are strongly disagree that they would not recommend this site their friends. According to 50 respondents of jabong.com 10 of them strongly agree that they would recommend this site their friends, 15 of them are agree that they bookmark them as their favorite site that they would recommend this site their friends, 11 of them are neutral that they would recommend this site their friends, 8 of them are disagree that that they would not recommend this site their friends and rest 6 of them are strongly disagree that they would not recommend this site their friends.

13. Would you intend to purchase it from the web site?

Websites	SA	A	N	D	SD
myntra.com	14	17	19	0	0
jabong.com	11	15	24	0	0
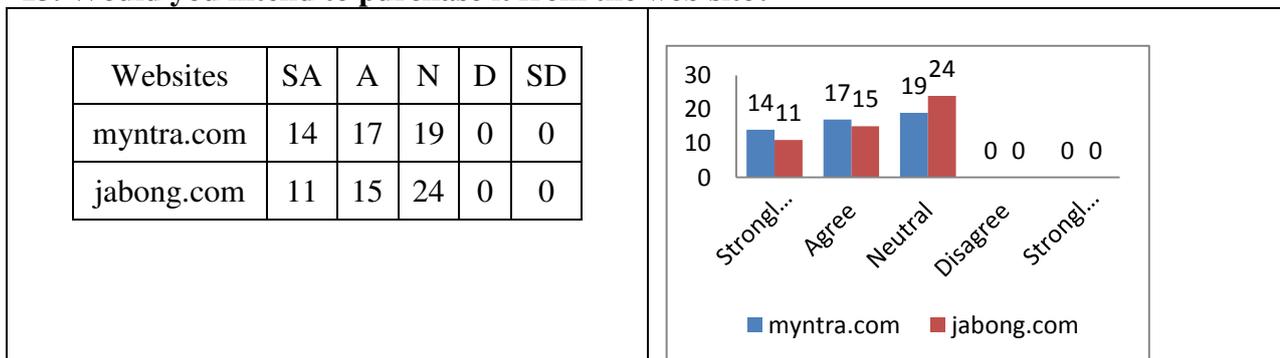
According to 50 respondents of myntra.com 14 of them strongly agree that they would intend to purchase it from the site, 17 of them are agree that they would intend to purchase it from the site, and rest 19 of them are neutral that they would intend to purchase it from the site. According to 50 respondents of jabong.com 11 of them strongly agree that they would intend to purchase it from the site, 15 of them are agree that they would intend to purchase it from the site, and rest 24 of them are neutral that they would intend to purchase it from the site.

14. Would you revisit it when you want to find an appropriate product next time

Websites	SA	A	N	D	SD
myntra.com	13	19	18	0	0
jabong.com	12	17	21	0	0
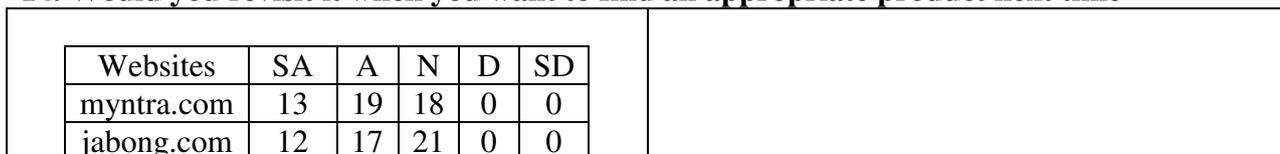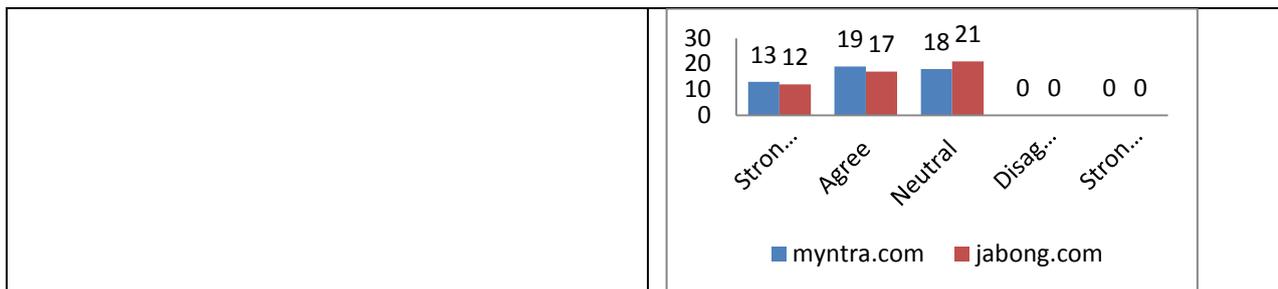
According to 50 respondents of myntra.com 13 of them strongly agree that they would revisit it when they want to find an appropriate product next time, 19 of them are agree that they would revisit it when they want to find an appropriate product next time, and rest 18 of them are neutral that they would revisit it when they want to find an appropriate product next time. According to 50 respondents of jabong.com 12 of them strongly agree that they would use email or use on-line form to contact the company, 17 of them are agree that they would use email or use on-line form to contact the company, and rest 21 of them are neutral that they would use email or use on-line form to contact the company.

15. Would you email or use on-line form to contact the company
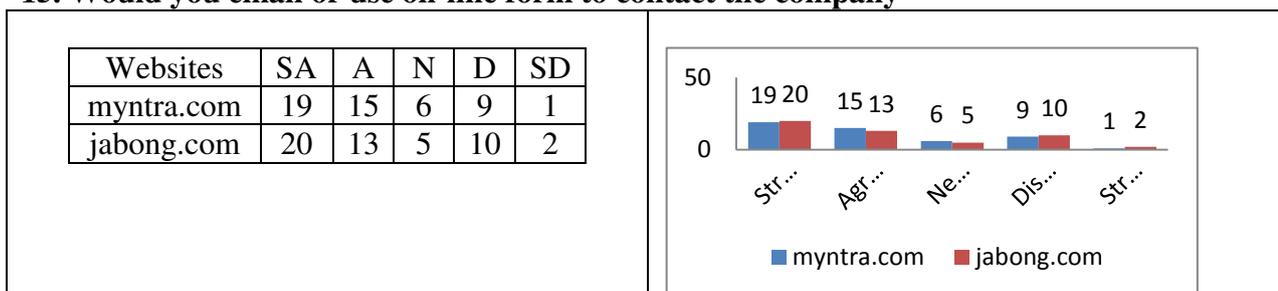
Websites	SA	A	N	D	SD
myntra.com	19	15	6	9	1
jabong.com	20	13	5	10	2

According to 50 respondents of myntra.com 19 of them strongly agree that they would use email or use on-line form to contact the company, 15 of them are agree that they would use email or use on-line form to contact the company, 6 of them are neutral that they would use email or use on-line form to contact the company, 9 of them are disagree that that they would not use email or use on-line form to contact the company and rest 1 of them are strongly disagree that they would not use email or use on-line form to contact the company. According to 50 respondents of jabong.com 20 of them strongly agree that they would use email or use on-line form to contact the company, 13 of them are agree that they would use email or use on-line form to contact the company, 5 of them are neutral that they would use email or use on-line form to contact the company, 10 of them are disagree that that they would not use email or use on-line form to contact the company and rest 2 of them are strongly disagree that they would not use email or use on-line form to contact the company.

FINDINGS

- It has been find out that 19 respondents of myntra.com and 17 respondents of Jabong.com strongly agree about trustworthy of commercial websites.
- When surveyed regarding the honesty of the commercial websites, 25 respondents of Myntra.com and 21 respondents of Jabong.com are strongly agree.
- 17 of Myntra.com and 15 of Jabong.com respondents are strongly agree that they have full belief on respective site.
- It has been find that 33 respondents of Myntra.com and 31 respondents of Jabong.com are strongly that these sites are interesting.

- When surveyed regarding itellegence of the commercial websites, 38 respondents of myntra.com and 33 respondents of Jabong.com are strongly agree.
- 27 of Myntra.com and 25 of Jabong .com are strongly agree that these sites are attractive.
- It has been find out that 36 respondents of Myntra.com and 33 respondents of Jabong.com are strongly agree that these sites are likable.
- When surveyed regarding the appearance of the commercial websites 12 respondents of Myntra.com and 11 respondents of Jabong.com are strongly agree that they are appealing.
- 21 respondenets of Myntra.com and 20 respondents of Jabong.com are strongly agree that these sites are entertaining. It has been find that 12 respondents of Myntra.com and 11 respondents of Jabong.com are strongly agree that these sites are stimulating.
- When surveyed regarding favorite among all commercial websites 10 of Myntra.com and 9 of Jabong.com are strongly agree.
- 12 of Myntra.com and 10 of Jabong.com are strongly agree that they would recommend this site their friends.
- It has been find that 19 respondents of Myntra.com and 20 of Jabong.com are strongly agree that they would use email or use on-line form to contact the company.
- 13 respondents of Myntra.com and 12 of Jabong .com are strongly agree that they would use email or use on-line form to contact the company.
- It has been find that 14 respondents of Myntra.com and 11 respondents of Jabong.com are strongly agree that they would intend to purchase it from the site.

SUGGESTIONS
- Trustworthy and honesty of commercial websites should be maintained.
- Commercial websites should be create attractive, interesting and intelligence.
- Websites should be likable, appealing and mean to be entertaining.
- It should be stimulating and recommendable to all the friends.
- Source of email or use on-line form of the company should be made sound able so that respondents can contact freely.

CONCLUSION

This empirical study pioneered in conceptualizing and measuring perceived interactivity and attitude toward the Web site. These two constructs are extremely important to Web advertising and marketing, and they will contribute significantly to the study of on-line consumer behavior. By grounding the study of interactivity in the user's perspective, perceived interactivity serves as a clear-cut variable which captures the essence of consumers' interactions in computer-mediated environments. The study indicates that perceived interactivity is positively related to consumers' attitude toward the Web site. This has profound implications for Web site design and Web advertising and marketing. Since perceived interactivity has two components - responsiveness and navigability, advertisers can enhance perceived interactivity by working on two aspects. First, a Web marketer should consider responsiveness among its target audience to determine whether more or less advanced Web technologies could be implemented. In the meanwhile, the Web marketer should take into account navigation among its target audience to decide whether simpler navigation should be incorporated in the site. In sum, by factoring in consumers' needs and requirements, perceived interactivity can be manipulated to Web advertisers' advantage.

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