



## EMERGING ISSUES IN MANAGING E-COMMERCE WEBSITES

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### Abstract

E-Commerce or Electronics Commerce is one of the methods of modern business. The revolution of information technology (IT) led to a tremendous change in E-commerce. Electronic commerce is the ability to deliver products and services, information or payments via networks such as Internet. E-commerce is one of the fastest growing sectors in India. . Increasing number of internet users day by day also lead to growth of E-commerce industry. There are many E-commerce firms that are successful such as Amazon, Flipkart, ebay, snapdeal etc. There are many factors that lead to success of E-commerce websites, one of them is to maintain a secure website. Consumers details should be maintained securely. A well designed professional website layout is the first step for any e-commerce business.

Website maintenance is not just updating information regularly, It is important that customers find website user friendly and easily navigable and accessible. Increased technology also led in discovering various hacking techniques. Securing the websites from these attacks is very important. Since everyone can view the website, protection of owner's rights has become a major problem. For companies other than e-commerce firms the company merchandise is protected by physical means where as E-commerce involves publishing, thus facing issues different from standard business practices. In view of this article tries to provide the identification of important issues regarding the maintenance of E-commerce websites.

**Keywords:** E-commerce, Hacking, security, owner's rights, Internet.

### Introduction

Rapid technological changes has also made revolutionary changes in the way the business is done which resulted in moving from the traditional way of doing business that concentrated on physical manufacturing of goods to the new way that focuses more on knowledge and information. All the transactions in e-commerce are done through electronic media rather than a physical way. E-commerce lead to a tougher business competition, since one's website is public and any other competitor can replicate the same or even better.

The primary reason for the growth of the e-commerce industry has been the increasing internet penetration in India. From the statistics it is known that there were only 21 million active internet users in 2006, whereas the number had raised to, 243 million users in 2014. This rise in the number of people familiar with, and able to access the internet, has resulted in the development of online marketplaces. With the rapid increase in use of smart phones and tablets number of users of e-commerce websites have increased exponentially year by year. But there are areas in e-commerce that users consider risky such as online payment, procurement of materials, trading in stock markets due to frauds

When a survey is conducted on the how risky the users feel to conduct the following processes through online platforms? (Responses were rated from 1-5 with 1 – being least risky and 5- being most risky. Weighted average of scores is depicted below)

| S. No | Category                                | Scale on(1-5) |
|-------|---|---------------|
| 1.    | Buying raw materials/Finished goods     | 2.63          |
| 2.    | Selling raw materials/Finished goods    | 2.49          |
| 3.    | Making online payments through gateways | 2.73          |
| 4.    | Participate in auctions                 | 2.59          |

Source:<https://www2.deloitte.com/content/dam/Deloitte/in/Documents/finance/in-finance-annual-fraud-survey-noexp.pdf>

From the above table it can be inferred that users consider online transactions are not the secure form. Hence these days more secure a e-commerce website is, more the chances of firm being successful.



### Objectives of Study

The main aim of the paper is to study

1. To identify various types of frauds in E-commerce websites.
2. To identify crucial issues concerning ownership of intellectual property in E-commerce websites
3. To briefly outline the options available to overcome the above issues.

Fraud is one of the biggest risks these days companies are facing. Gaining Consumer's Trust is the main idea behind any successful E-commerce company .If the customer does not trust the company many issues arises like whether the product would be delivered as exactly shown in website, whether it would be delivered on time etc. Hence it is important that company gain the customers trust.

### Identity Theft

According to the study, Identity theft is one of the most common types of fraud for which most of the merchants are concerned. All the account details of customer are taken by fraudster and are used for his own good. In most of the cases credit cards are the target, as a fraudster does not need much information to carry out a transaction when card is not with him In traditional identity theft, using a different identity transactions are carried out by criminals. Instead of having to come up with a completely new identity to do this, they come up with a faster way of taking over an existing one. Some common ways for accessing the information are,

- Accessing mails
- Retrieving data from computer servers which are not secured properly
- Retrieving information from social networking sites
- Accessing computer databases (Trojans

### Friendly Fraud

In this method, customers pay for goods preferably using payment method like a credit card or direct debit they ordered. Then, however, they deliberately claim that their account details or card details were stolen. They are reimbursed, but they keep the goods or services. Friendly fraud also tends to be combined with reshipping.

### Affiliate Fraud

There are two types of affiliate fraud, the goal of both types of fraud id: By changing traffic or signup statistics they obtain more money from an affiliate program. This may be done through an automated process or with the help of people to use fake accounts and log into merchants' sites.

### Counterfeiting

Fraudster may sell the duplicate good in the name of company this result in huge revenue loss to the manufacturer since it creates bad impression on that company. For example there are many advertisements who says they would sell the product for only 20% of it's original cost.

### Replicating

Fraudster may create a website which looks same as the original one .If any customer gets into his site all the information customer is stored by the fraudster and is later used for his benefits.

### Ways to overcome Fraudulent Activities

**1. Maintain secure transaction Methods:** Most of the fraudulent activities take place when customer pays through online payment methods. To ensure customer's belief it is important that the company maintain a secure method for transactions. For example using 3-D secure pin, which ensures that transactions are done only by real owners of the card.

**2. Recognize Suspicious Orders:**

There are some common signs that help recognizing them:

- When there are a huge number of orders from a unknown customers
- When requests are made to change shipping address for a paid order
- Use of Fake e-mail ids
- Large quantity of international order within a short period of time

It is better to review the order and contact the customer if any order is found suspicious.

**3. Know the Customer:** It is important to know the demographics of customers and their orders. The pattern of orders should be known who will order what type of products and by what quantity. If these patterns are identified one can easily find the fraudulent orders.



**4. Ensure Customers maintain a Strong Profile Password:** If company website requests for customer information then customers need to create an online customer profile with saved information. It is important that password is strong i.e. to maintain certain characteristics like minimum number of characters, combination of capital letters, numbers and symbols such that it is not easy to crack.

**5. Maintain a List of Confirmed Fraudulent Attempts:** All the data related to the person who made fraudulent attempt must be stored so that in future if any order contains the same information that order should be reviewed. Data to be stored include shipping address, phone number, e-mail id.

Even if all these measure are taken there is still a chance for a fraud to take place in the e-commerce website .There are some laws protecting websites from cyber crime. Information Technology Act 2000, it is the primary law dealing with the issues regarding cyber crime and electronic commerce. The below table shows no of cases registered, persons arrested for five consecutive years under IT Act 2000 in India. Number of registered cases has been increasing .The rate of increase in crime can be reduced only if strict action is taken against criminals.

Numbers of cases registered and persons arrested under Information Technology Act -2000

| S. No | Year | Registered | Arrested |
|-------|------|------------|----------|
| 1.    | 2011 | 1791       | 1184     |
| 2.    | 2012 | 2876       | 1522     |
| 3.    | 2013 | 4356       | 2098     |
| 4.    | 2014 | 7201       | 4246     |
| 5.    | 2015 | 8045       | 5102     |

Source: <https://factly.in/cyber-crimes-in-india-which-state-tops-the-chart/>

### Intellectual Property

Intellectual property is product or creation of mind .It is different from other properties since it is intangible. It is something that is owned by the person who first thought of it. It is a business asset unlike tangible property such as inventory .The following are crucial issues involved in protection of intellectual property like ownership of back-end systems, ownership of content, ownership of ideas.

#### Issue 1

**How to Protect Investment in e-Commerce where it can be Stable and Rewarding:** If everything on the internet is owned by someone ,that someone or some organization must be willing to grant permission to use his or her property or may agree to a licensing contract most probably for a fee.

This is the usual process and the issue seems to be simple but in practices one might not really own what one thinks one owns. Because everything that can be taken and used is not all over done legally. The ideas constituting intellectual property and assets on a website can be taken and used by others without any payment. Hence the issue arises how to protect one's investment in ecommerce venture however large or small it might be the problem arises. Because of peculiarity of e-commerce which involves publishing since the website is made public.

#### Issue 2

##### Ownership of e-Commerce Websites. Is it for Total Website or for Components?

An e-commerce website is made up of lot of bits and pieces. The art, text, and page layout that users can see the HTML and other code behind the scene but which makes the page layout work.

In the complex system the components that go into an e commerce website determining ownership is a difficult task. Web page designer might use a part of final image, art, different fonts the designer has to pay to every owner of this components like photography etc for one time use depending upon license terms.

A developer of a e-commerce site backend may use proprietary i.e. privately owned and controlled code of tools. The e-commerce venture promoter may pay to the developer of website but whether the developer of website but whether the developer paid for the different components of back end is a matter of crucial importance to avoid legal notice from lawyers of true owners of intellectual property.



### Issue 3

**Ownership of “Look and Feel” or “Trade Dress” in e-Commerce Industry:** Look and feel is popular general description and Trade dress referred to in legal documents but all of them essentially refer to the public face of website including design and functionality. The elements that got into these concepts are colour, graphics, navigation, tools, layout and anything that visually distinguishes one site from another.

When e commerce ventures spent resources in defining and refining the look and feel of the website, other companies cannot be allowed to cash in on its image because it is a part of intellectual property.

### Issue 4

**Ownership of Ideas and Content in e-Commerce Websites:** Ideas change the world. But ideas are intangible assets. Hence in legal terms no one can own an idea .Expression of idea can be protected .In case of inventions also even when the invention is patented it is not the idea that is protected by the patent ,it is the tangible implementation of idea i.e. a drawn written plan for a process. This applies to copyright content also. Thus the ownership of tangible content has to be distinguished from ownership of ideas.

Legal position of Intellectual property rights is outlined in Patent Act 1970. Software is now patentable if embedded with hardware. Currently intellectual property rights protection with regard to software is limited to copyrights.

### Patent Process in India

- Patent ability to search on instant invention
- Drafting patent application
- Filling the application with patent office
- Publication for pre grant opposition
- Request for examination
- Issuance of examination report by patent office
- Response to the examination report to overcome objections
- Issuance of notice of grant of patent subject to post grant opposition
- Publication for post grant opposition
- Issuance of letter patent document
- Patent maintenance and renewal for Twenty years

### Conclusion

For the way out to the problem of protecting intellectual property rights in E-commerce the options have to be judiciously worked out to enhance the E commerce business. The legal frame work is inadequate in protecting IPR. The mal practices in E-commerce business have to be minimized by protecting the intellectual property rights at any cost to reward the creators, encourage innovation and expansion of E-business. The Information technology Act 2000 defines security and encryption for e-commerce in India, also it should be seen that all the cases registered under this act are resolved.

### References

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### Data Analysis Using SPSS Software

**Null Hypothesis:** There is no significant difference between registered cases and arrested  
**Data view in SPSS:**

| S.No | year | type | cases   | var | var | var | var | var |
|------|------|------|---------|-----|-----|-----|-----|-----|
| 1    | 2011 | 1    | 17.51   |     |     |     |     |     |
| 2    | 2012 | 1    | 28.76   |     |     |     |     |     |
| 3    | 2013 | 1    | 43.56   |     |     |     |     |     |
| 4    | 2014 | 1    | 72.01   |     |     |     |     |     |
| 5    | 2015 | 1    | 80.45   |     |     |     |     |     |
| 6    | 2011 | 2    | 11.84   |     |     |     |     |     |
| 7    | 2012 | 2    | 15.22   |     |     |     |     |     |
| 8    | 2013 | 2    | 2098.00 |     |     |     |     |     |
| 9    | 2014 | 2    | 42.46   |     |     |     |     |     |
| 10   | 2015 | 2    | 51.02   |     |     |     |     |     |

1-Registered                      2-Arrested

### Variable view in SPSS

Level of significance-95%-0.05

| Name  | Type    | Width | Decimals | Label | Values | Missing | Columns | Align | Measure | Role  |
|-------|---------|-------|----------|-------|--------|---------|---------|-------|---------|-------|
| S.No  | Numeric | 8     | 0        |       | None   | None    | 8       | Right | Nominal | Input |
| year  | Numeric | 8     | 0        |       | None   | None    | 8       | Right | Scale   | Input |
| type  | Numeric | 8     | 0        |       | None   | None    | 8       | Right | Nominal | Input |
| cases | Numeric | 8     | 2        |       | None   | None    | 8       | Right | Scale   | Input |

### Output in SPSS

| type    | N | Mean     | Std. Deviation | Std. Error Mean |
|---------|---|----------|----------------|-----------------|
| cases 1 | 5 | 48.5380  | 27.03394       | 12.08994        |
| cases 2 | 5 | 443.7080 | 924.93213      | 413.64222       |

Group Statistics here gives the information about number of observations taken in allocated and expenditure, mean of those observations, standard deviation and standard error mean of those observations.

### Independent Samples Test

|       |                             | Independent Samples Test                |      |       |       |                              |                 |                       |   |            |  |
|-------|-----------------------------|---|------|-------|-------|------------------------------|-----------------|-----------------------|---|------------|--|
|       |                             | Levene's Test for Equality of Variances |      |       |       | t Test for Equality of Means |                 |                       |   |            |  |
|       |                             | F                                       | Sig. | t     | df    | Sig. (2-tailed)              | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |            |  |
|       |                             |   |      |       |       |                              |                 |                       | Lower                                     | Upper      |  |
| cases | Equal variances assumed     | 0.634                                   | .433 | -9.10 | 8     | .000                         | -395.7000       | 41.81337              | -478.33502                                | -313.06498 |  |
|       | Equal variances not assumed |   |      | -9.10 | 8.000 | .000                         | -395.7000       | 41.81337              | -478.33502                                | -313.06498 |  |

- To know whether equal variances to be assumed or equal variances to be not assumed we make use of Levene's Test for Equality of variances.

As a rule of thumb, if Sig. > .05, we use the first line of t-test results.



Reversely, if its p-value Sig. < .05 we reject the null hypothesis of equal variances an Here sig. Value is 0.033 which is less than 0.05 we reject the null hypothesis of equal variances. We can conclude that there is statistically significant difference between cases registered and arrested.

**Result:** Here there by we can conclude by T-test that there is significant difference between cases registered and arrested.

**Theoretical Calculations**

**Null Hypothesis:** There is no significant difference between allocated and expenditure amounts.

X<sub>1</sub>= Allocated Amount

X<sub>2</sub>=Expenditure Amount

| S. No        | X <sub>1</sub>                | X <sub>2</sub>                | X <sub>1</sub> -x <sub>1</sub> | X <sub>2</sub> -x <sub>2</sub> | (X <sub>1</sub> -x <sub>1</sub> ) <sup>2</sup>                 | (X <sub>2</sub> -x <sub>2</sub> ) <sup>2</sup>                 |
|--------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|--|--|
| 1            | 17.91                         | 11.84                         | -30.62                         | -16.46                         | 937.58   | 270.93   |
| 2            | 28.76                         | 15.22                         | -19.77                         | -13.08                         | 390.85   | 171.08   |
| 3            | 43.56                         | 20.98                         | -4.97                          | -7.32                          | 24.7   | 53.58  |
| 4            | 72.01                         | 42.46                         | 23.48                          | 14.16                          | 551.31   | 200.50   |
| 5            | 80.45                         | 51.02                         | 31.92                          | 22.72                          | 1018.88  | 516.19   |
| <b>Total</b> | <b>∑ X<sub>1</sub>=242.69</b> | <b>∑ X<sub>2</sub>=141.52</b> |                                |                                | <b>∑(X<sub>1</sub>-x<sub>1</sub>)<sup>2</sup><br/>=2923.32</b> | <b>∑(X<sub>2</sub>-x<sub>2</sub>)<sup>2</sup><br/>=1212.28</b> |

$$x_1 = \frac{\sum X_1}{n_1} = 48.53$$

$$x_2 = \frac{\sum X_2}{n_2} = 28.30$$

Formulae for calculating the value of t is

$$t = \left( \frac{x_1 - x_2}{s} \right) \left( \frac{n_1 n_2}{n_1 + n_2} \right)$$

where x<sub>1</sub>=Mean of first set of observations

x<sub>2</sub>=Mean of second set of observations

n<sub>1</sub>= No. of observations in first set

n<sub>2</sub>=No. of observations in second set

$$s = \text{Combined Standard Deviation} = \sqrt{\left( \frac{\sum(X_1 - x_1)^2 + \sum(X_2 - x_2)^2}{n_1 + n_2 - 2} \right)}$$

$$s = \left( \frac{2923.32 + 1212.28}{5 + 5 - 2} \right)^{0.5} = 8.038$$

$$t = \left( \frac{48.53 - 28.30}{8.038} \right) \left( \frac{5 \times 5}{5 + 5} \right) = 6.291$$

But table value of t at 95% level of significance and (n<sub>1</sub>+n<sub>2</sub>-2) i.e., 8 degrees of freedom is 1.86. As calculated value of t is greater than table value of t reject the null hypothesis.

So there is significant difference between cases registered and arrested.