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Creating and Maintaining Privacy and Trust in an Online Trading Environment: A Case Study

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ABSTRACT

Creating and maintaining privacy and trust in electronic commerce when developing an online presence is critical if a company wishes to trade successfully via the web. Customers have expectations with regard to the privacy of details exchanged during a transaction. If these expectations are met then customer loyalty is the reward for businesses which successfully maintain privacy and in turn create trust amongst customers. This paper examines the approach used by Hewlett Packard to create and maintain privacy and trust amongst its customer bases and explores issues of creating and maintaining privacy and trust in electronic commerce when developing an online presence. The study used was a case study approach

INTRODUCTION

Creating and maintaining privacy and trust in electronic commerce when developing an online presence is essential. Hewlett Packard recognised that building long-term business relationships can be achieved through obtaining the customer's trust. Meeting the trust expectations of customers around the respectful, fair and honest use of their personal information is respecting their privacy. A major component of this trust is HP's commitment to respect customer's privacy. HP believe that if customers know they can trust HP with their personal data, then HP feel they can do business with the customers and generate profitable revenue. HP collects and uses customer information to better understand customer needs and interests and to better products and services. Poor privacy practices can erode HP's brand value. To assist in creating and maintaining privacy and trust Hewlett Packard (HP) first initiated its Customer Privacy Programme in November 1997. The Customer Privacy Programme is an internal group at HP that handles all issues related to customer privacy. Hewlett Packard places a high priority on the data privacy of its customers and on the importance of compliance with data privacy laws worldwide. HP must comply with fundamental data privacy rights, which have been implemented through various national codes, regulations and data protection laws throughout the world. The basic idea behind data protection, and the regulations that govern it, is the concept that the individual controls how others use their personal information. A policy of HP is to always treat personal data in a lawful and straightforward manner and they apply this to both offline and online customer and employee data transactions. This paper begins by examining privacy on the internet and trust. Following this a number of models are examined. The methodology used in the case study is then outlined and the main findings are described. Finally the conclusions are outlined and a model for maintaining privacy and trust in an online trading environment is proposed.

PRIVACY ON THE INTERNET

On the Internet there are concerns about the privacy of personal information and the security of financial transactions (Maruca, 1999). Retailers online or e-tailors as they are known must be subtle in the

treatment of consumers and not alarm them by revealing how much personal information is known (Betts, 2001a). Privacy concerns are the principal reason consumers refuse to give information to websites. Users are more willing to supply information when they are customising a site than when they know the data would be used for personalisation features (Nunes & Kambil, 2001). Therefore e-commerce websites should be responsible for taking steps to keep the customer data that they collect secure. Companies should take measures to ensure that the information consumers reveal will be kept confidential and will not be downloaded by hackers or lost or misused by employees (Kiely, 1997b; Farah & Higby, 2001).

Personal information privacy and the ability of the individual to personally control information about oneself, is quickly becoming one of the most important ethical issues of the information age. Information technology developments plus the increasing value of information to decision makers are raising concerns about personal information privacy management practices (Milberg et al, 1995). For many consumers, privacy concerns raise fears about security (Light, 2001). Every company carrying out business on the Internet needs to consider privacy. The use of customer information is one of the most important issues of all business-to-consumer e-commerce strategies. As consumers are using the Internet for more purchases, vendors have access to rich profiles of shopping and buying patterns (Shapiro, 2000).

In the online trading environment there is a substantial difference between the U.S approach to online privacy to that of the European approach. The U.S has relied on market forces and consumers to reject websites, whereas European countries have established privacy laws for e-commerce, forcing websites to adhere to stringent guidelines (Farah & Higby, 2001). Regulations and policies concerning the use of personal information are different from one country to another, and the nature and level of information privacy concerns (Milberg et al, 1995). For European users of U.S. websites a 'safe harbor' agreement was set up. The agreement consists of a set of guidelines that U.S websites can follow to gain a 'safe harbor' from EU legal ramifications. It requires that websites collecting personal data must tell visitors which data is being collected, for what purpose, and who will it be shared with. This agreement also sets out that customers have the right to access their personal data (Farah & Higby, 2001).

While privacy is obviously a strategic issue for organisations, it should be the main concern for information systems management as well (Culnan, 1993). Concerns about the violations of intellectual property rights and individual rights of privacy are vital because there are no clear ethical frameworks in the computing professions or in the workplace to direct conduct (Straub & Collins, 1990). Therefore, in a global marketplace reliant on transborder data flows, being sympathetic to the differences in information privacy concerns and regulatory approaches and the relationships between them, could be a key to successfully managing those concerns (Milberg et al, 1995). While the legal posture of any single organisation will differ, what is common among organisations is the need for managers to have an awareness of the possible legal

implications that actions in the organisation can bring about (Straub & Collins, 1990).

Managers need to follow the development of privacy legislation and designate responsibility for information liability to persons with strong connections to functional area managers (Straub & Collins, 1990). Currently many organisations are reactive in the management of privacy issues, waiting for an external threat to occur before they craft cohesive policies. A more suitable approach would be to have a hands-on focus on privacy issues before an external threat forces a defensive corporate response or excessively restrictive regulation (Milberg et al, 1995).

TRUST

Retaining customers is a financial necessity for electronic vendors and recognising that a vital key to retaining these customers is maintaining their trust in the e-vendor and that trust is at the heart of all kinds of relationships is crucial for organisations (Gefen et al, 2003). Consumers who refuse to supply personal information to web sites state it is because they have no trust in those who are collecting the data, and they believe that providing such information is not worth the risk of revealing it and the web sites provide no information as to how the data will be used (Hoffman et al, 1999).

Trust-based marketing is the key to winning and companies can use the Internet to provide customers with a secure, private and calming experience. Trust-based marketing web sites provide customers with accurate, up-to-date, complete and unbiased information. Web-site trust can be enhanced by ensuring consumer privacy and consumers increasingly demand that their personal data be kept private (Urban, Sultan & Qualls, 2000). To gain the loyalty of customers, trust first needs to be obtained. When customers do trust an on-line vendor, they are much more likely to share personal information. That information enables the company to form a closer relationship with customers, offering products and services tailored to suit individual preferences, which in turn increases trust and strengthens loyalty (Reichheld & Scheffer, 2000).

EC Trust Model

Turban et al (2002, p. 132) shows a model created by Lee & Turban (2001) which examines the various aspects of EC trust. According to this model the level of trust is determined by several factors. Lee and Turban developed this model to portray the complexity of trust relationships, especially in business-to-consumer electronic commerce.

The model shows three categories which determine “EC Trust”. The categories are “Trust in Internet Merchant”, “Trust in Internet as shopping channel” and “Trust in business and regulatory environments”. The level of trust in each of these categories is determined by the traits of the individual consumer, “Demographics”, “Previous experience”, “Personality” and “Cultural proposition”. These traits shape the factors preceding each of the three categories.

Model of Internet Consumer Satisfaction

Turban et al (2002, p. 127) and Koivumaki (2001, p. 188) show a model developed by Lee (2001) which shows how a repeat purchase is determined by consumer satisfaction. The model shows that consumer satisfaction is created by various other factors such as “logistics support” and “website storefront”, also different factors for these properties determines the level of satisfaction. The main finding from this model is that by creating customer satisfaction online leads to repeat purchases.

In an economy witnessing explosive growth in consumer electronic commerce and net enabled organisations, it is no surprise that web site design represents an issue of considerable importance to firms. An increasing number of businesses choose the web as another channel for creating a brand reputation, for transacting with and servicing customers and investors and for public relations purposes (Agarwal & Venkatesh, 2002). To please users and also be successful, web sites need to consider usability and other design criteria. User interactions with sites that exhibit more than normal usability have been associated with performance improvement (Palmer, 2002). The design of the web site is a critical determinant of whether visitors are likely to revisit the site (Agarwal & Venkatesh, 2002). Poor interface design has been a key factor in a number of high profile site failures (Palmer, 2002). A crucial challenge facing businesses is to develop a web presence that is not only persuasive for the visitor, but is also able to serve specific goals well (Agarwal & Venkatesh, 2002).

Figure 1. EC trust model (Lee & Turban, 2001) (Turban et al, 2002)

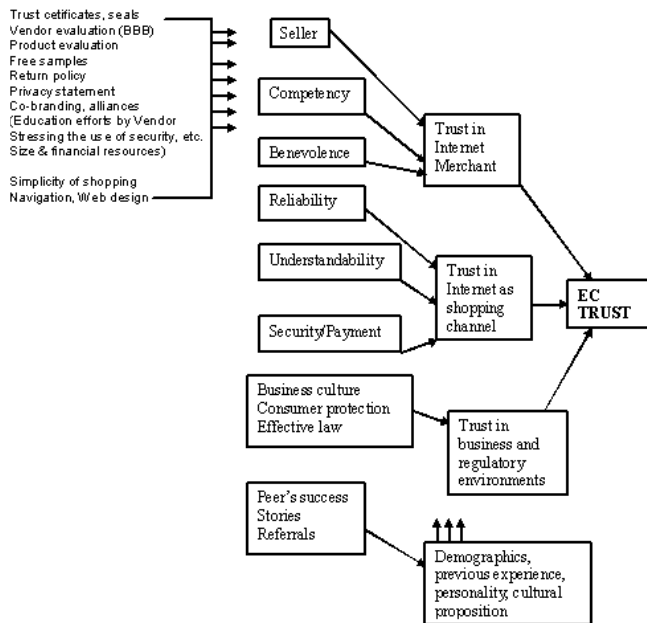
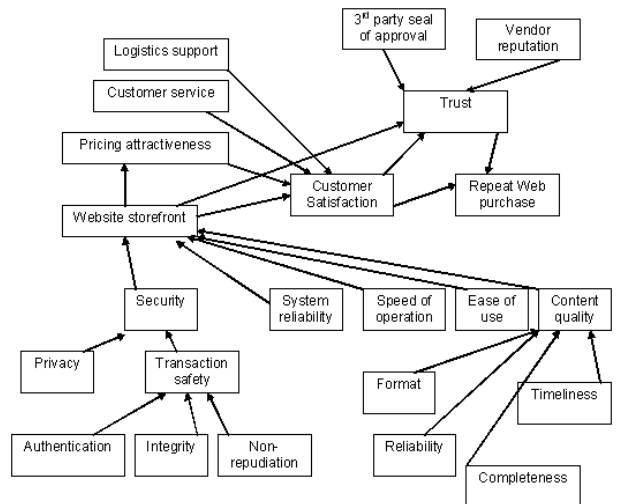


Figure 2. Internet consumer satisfaction (Lee, 2001) (Turban et al, 2002; Koivumaki, 2001)



RESEARCH DESIGN

The first stage of the study comprised of semi-structured interviews, which were carried out on a number of employees from Hewlett Packard (HP). The main purpose of this stage was to gather information on the approach used by HP to set up a Customer Privacy Programme in order to combat privacy concerns and fears consumer's face. This stage explores two of the secondary objectives; firstly to understand how privacy issues are crucial to electronic commerce and secondly to understand how trust is an important factor for consumers. Three employees from Hewlett Packard participated in the interview stage. Two of the interviewees are members of the Global Privacy Team while the other interviewee is concerned mainly with the privacy projects worked on at the Galway plant of Hewlett Packard. The three candidates interviewed are the only people in Europe to have obtained a CIPP (Certified Information Privacy Professional) certificate. The certificates mean that the employees have been trained in the areas of law and compliance, information security, data sharing and transfer, web privacy and security and workplace privacy.

Stage two of the study involved the completion of questionnaires by web developers within HP; the purposes here were to explore how the standards and guidelines set out by the Customer Privacy Programme were applied to website design. This stage explores the final secondary objective; to identify best practice for safe (private, trustworthy) websites. Five employees from Hewlett Packard completed questionnaires for stage two of the research. All of the candidates are web developers and have lead roles in designing websites for HP that conform to the standards and guidelines set out by HP. The five candidates were chosen as they work in the area of web development and follow the guidelines set out by Hewlett Packard to design the websites.

FINDINGS

One interviewee candidate revealed that Hewlett Packard has a Customer Privacy Office whose main objective is to provide the customer privacy business requirements to any group, that directly or indirectly handles or deals with customer data, the rules, guidelines and policies to comply with HP's Customer Privacy Office. This group does not perform primary research regarding privacy issues but rather relies heavily on institutes such as 'The Ponemon Institute', 'BBBOnline' and 'TRUSTe' for valuable secondary research. The interviewee stated that this group is responsible for establishing and reviewing policies, rules and guidelines to proactively safeguard HP's customer's personally identifiable information.

The interviewees all stated that Hewlett Packard was recognised for its privacy practices with the "Most Trusted Company Award". This was announced in January 2005 by TRUSTe and the Ponemon Institute. Two of the interviewees explained how the TRUSTe award was gained. A panel of privacy experts from academia and industry selected HP out of 50 eligible companies for its comprehensive program. The "Most Trusted Company for Privacy Award" matches consumer experience and perceptions of trust with expert insight into a company's active privacy initiatives to create a trusted brand. For the award, internal programs were reviewed and innovative policies in actual use were noted.

Two interviewees stated that Hewlett Packard conducts a substantial amount of cross-border commercial and consumer business activity with direct involvement of EU country-based HP offices and independent suppliers, and receives customer information from them on a regular basis. To bridge different privacy approaches between countries and provide a streamlined means for US organisations to comply with the directive, the US Department of Commerce and the European Commission developed a Safe Harbor framework. Safe Harbor provides a legal protection and framework allowing for the safe transfer of personal information from European Union countries to the United States. Hewlett Packard participates in the Safe Harbor agreement and was the first major technology company to join Safe Harbor.

All of the web developers confirmed that sites are scanned using a software package that ensures privacy compliance. With the significant

risks and exposure to litigation that non-compliance poses, a comprehensive privacy scan continually monitors websites to help HP avoid potential litigation, negative media attention and erosion of consumer trust.

All candidates that completed the questionnaire stated that Hewlett Packard only collect relevant, adequate, and not excessive personal information. HP requires only information that is necessary to complete a transaction with a customer. The literature shows that the collection of this type of information is not seen to be privacy invasive because the information is being used in the context of the relationship between client and business.

Four of the questioned candidates highlight 'notice' and 'choice' as being the two most important privacy fundamentals for HP in data collection and sharing. They stated that customers receive adequate 'notice' at the point of data collection when they are informed of both the purpose and use of their personally identifiable information, in accordance with HP's privacy statement. With regards to 'choice' they stated that HP customers receive adequate 'choice' when they are provided with an opportunity to express their preferences for contact or data sharing. This is a solution to a problem in the literature which states that privacy issues are a major factor for consumers supplying personal information, Nunes & Kambil (2001).

The candidates all concurred that HP uses customer's personally identifiable information (PII) for the purposes by which it was originally collected, unless customer consent is obtained for other uses. A notice at the point of collection defines use and purpose of collection. The candidates also stated that the basic rule in the HP privacy policy is that personally identifiable information should not be shared, sold, or rented without explicit customer permission. Even though sharing PII may make sense in running a business and providing services to customers, HP does not share customer data without permission. One candidate outlined how sharing PII with other companies that might expose customer data to significant risks or misuse is not accepted by customers and is a law violation in some countries.

Finally, the candidates stated that within HP a customer's privacy permissions must be stored wherever the customer's personally identifiable information is stored. The individual records must be stored only for the purposes for which they were collected and must conform to HP's record retention policy. Customers can forward their names and contact information to HP to request changes to their general contact permissions.

CONCLUSIONS

Many companies use the Internet for some reason and every year new users emerge for it. Although numerous items are bought and sold on the Internet, consumers still go to offline stores as stated by Malone (2001). Hewlett Packard have established themselves both offline and online as successful competitors in their industry and recognised that a key to maintaining success for any organisation is to obtain loyal customers. This is consistent with Reichheld and Schefter (2000) who state that loyalty is about earning the trust of the right kinds of customers, customers for whom an organisation can deliver a consistently superior experience that will lead to repeat purchases. Hewlett Packard have recognised that loyalty is crucial and believe that building long-term relationships is done through obtaining the customer's trust.

The findings show that HP set up a Customer Privacy Programme where all issues related to customer privacy are handled. This programme helped HP gain trust from customers regarding treatment of personal information. HP make a commitment to respect customer's privacy which leads to repeat purchases generating profitable revenue. The researcher feels that this programme was set up due to high concerns raised by consumers regarding personal privacy online.

Personal information privacy and the ability of the individual to personally control information about oneself is one of the most important issues of the information age states Millberg et al (1995). HP acknowledge this by allowing customers access to their personally

identifiable information online and provide the consumers with the ability to change and update information as is necessary. The researcher feels that this practice was brought about because of consumer demands to have control over their personal information.

The findings show that HP build long term business relationships through obtaining customer's trust. HP believes that meeting the trust expectations of customers around the respectful, fair and honest use of their personal information is respecting their privacy. A component of this trust is HP's commitment to respect customer's privacy. HP believe that if customers know they can trust HP with their personal data, then HP feel they can do business with the customers and generate profitable revenue.

HP and the EC Trust Model (See Figure 1). The researcher is aware that HP does not knowingly follow the techniques that have been outlined in the model but the approach HP takes is similar to that of the model. They promote "Trust in Internet Merchant" with the Customer Privacy Programme. The Programme is used to meet the trust expectations of customers. When consumers see their expectations being met, they place their trust in the Internet merchant.

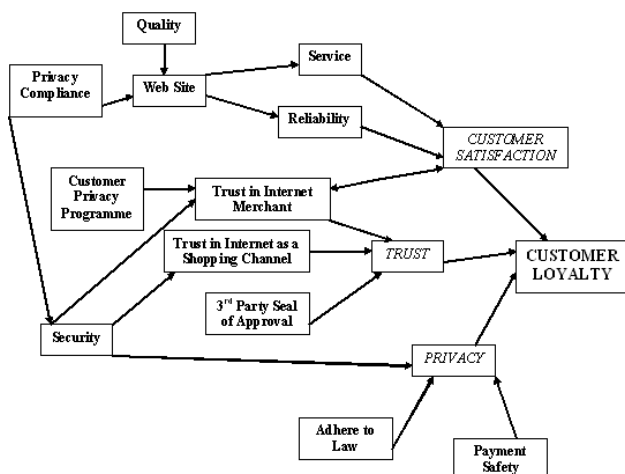
To promote "Trust in the Internet as a shopping channel", HP have in place security standards to ensure there is no unauthorised access to personal consumer information. The researcher feels that as HP are recognised in the industry as being at the fore for privacy compliance this has forced all competitors to keep up with the high standards. Thus the industry itself is promoting "Trust in the Internet as a shopping channel".

"Trust in business & regulatory environment", has been a crucial element for HP. They have been successful in keeping up with current legislation so much so that the researcher feels they are ahead of the legislative practice in setting guidelines for them to follow. And it appears that the award obtained by HP for "Most Trusted Company Award" has helped HP create a success story which is spread through word of mouth, this creates referrals for HP thus moulding the traits of the individual consumer, in particular "previous experience".

The approach HP has taken to creating trust and repeat purchases are not only similar to the EC Trust Model (Figure 1) but also to that of the Internet Consumer Satisfaction Model (See Figure 2). The researcher sees HP's approach as a combination of the two models and proposes the following model to be the practice HP has in place.

The researcher proposes this model to be the best fit for the approach HP take to creating and maintaining privacy and trust in their online environment. The researcher puts forward that the model is based on the assumptions made by HP that customer loyalty is determined by customer satisfaction, trust and privacy.

Figure 3: Privacy and Trust Maintenance Model



For HP the researcher believes they create customer satisfaction through a good quality, privacy compliant website. This website creates a good reliable service thus leading to consumer satisfaction. Consumer satisfaction is also determined by the level of trust placed on the Internet Merchant. If there is trust in the Internet Merchant then there is customer satisfaction and if consumers are satisfied they will have trust in the Internet Merchant. HP create this trust with their Customer Privacy Programme and through the level of security they create from the website and privacy issues.

The researcher puts forward that HP view trust as not only being created through trust in the Internet Merchant but also the trust placed on the Internet as a shopping channel and awards received from third parties with their seals of approval. HP helps create consumers trust in the Internet as a shopping channel through privacy compliance and security. This security leads on to general privacy issues which the researcher feels HP find adhering to the law and payment safety are important factors.

The researcher's opinion is that for HP to create and maintain privacy and trust online the model is the current approach they employ. The ultimate reason for creating and maintaining privacy and trust online is essentially to meet customer expectations. If these expectations are met then customer loyalty is the reward for any business using the same approach as HP, therefore, to create and maintain privacy and trust in electronic commerce when developing an online presence is a successful practice.

To conclude, the findings have revealed that HP have successfully based themselves both offline and online in their industry. Having recognised the concerns raised by consumers regarding privacy and trust, they have managed to deliver and maintain a superior experience over any other competitor in the industry. Investigating issues raised over privacy and trust has led them to establish a Customer Privacy Programme which in turn created trust for consumers. This trust has been reflected in the success of Hewlett Packard gaining loyal customers, which led to repeat purchases thus in turn helping HP in creating and maintaining a successful online presence.

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