

Rachel L Farrell. An Analysis of Feedback Provided by Buyers in an Online Setting. A Master's Paper for the M.S. in I.S degree. November, 2004. 28 pages. Advisor: Diane Kelly

This is an exploratory study that investigates desirable characteristics for a seller to possess in an on-line auction setting based on buyer's written feedback comments and ratings from positive to negative on the online auction site eBay. It was conducted to determine the common characteristics that buyers write about and to expand the traditional feedback rating system for sellers from one-dimensional to a multi-dimensional.

Five hundred comments written by unique buyers about a hundred sellers were gathered from eBay on September 9, 2004. Content Analysis was used to analyze the comments and ratings once they were transferred to an excel spreadsheet. In these online auctions buyer's comments on feedback ratings systems are what other buyers use to help determine if they are going to purchase an item from the seller. The current types of feedback rating systems do not offer the ability to rank a seller on multiple characteristics that are important to the buyer. This lack of consistency in determining the seller's expected performance is a major factor in the public's reluctance to adopt electronic commerce as a means to purchase items.

**Headings:**

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Trust

Relevance Feedback

AN ANALYSIS OF FEEDBACK PROVIDED BY BUYERS IN AN ONLINE  
SETTING

by  
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## **Introduction**

As the internet continues to expand globally so does electronic commerce or e-commerce. One type of e-commerce that is continuing to increase in popularity is online auction. Anders writes that online auctions have created a “global marketplace for hundreds or millions of people. They overcome many of the limitations associated with conventional markets” (Anders, 2004). Sellers and buyers alike are no longer constrained by time, physical location and size of business. In an online auction setting the website is continually running twenty-four hours a day seven days a week. According to Forrester Research total revenue for e-commerce for 2004 is projected to be \$6.8 trillion. On-line auctions account for 29% of this revenue or \$1.972 trillion (Anders, 2004).

However for online auctions to be successful, buyers must have a certain amount of trust associated with completing a transaction with the seller. In a physical store a buyer can see that there are actual goods to be purchased and assess face to face if the seller is being truthful about the item. There is no ambiguity as to what is being sold. On the web, a buyer must “trust” that the seller is being truthful in their description. According to Chong et al. “From the social psychologist perspectives, trust is characterized in terms of the expectations and willingness of the trusting party engaging in a transaction, the risks associated with and acting on such expectations, and the contextual factors that serve to either enhance or inhibit the development and maintenance of that trust” (Chong, Yang, & Wong, 2003).

McKnight explains in his model of trust for e-commerce vendors that there is “a fundamental lack of faith between most businesses and consumers on the web today. In essence, consumers simply do not trust most Web providers enough to engage in ‘relationship exchanges’ involving money and personal information with them” (McKnight, Choudhury, & Kacmar, 2000). In an article published in 2003 by Point of Purchase they write, “If consumers don’t believe in the representations of marketers, they simply won’t buy. Therefore the primary challenge now facing companies is to reassure consumers of their integrity and trustworthiness” (2003).

Online auctions are attempting to address this trust barrier by offering various flavors of feedback rating systems. For instance, the most common type is having buyers write comments about the seller and the transaction that took place. This type of rating is intended to serve as a check system for the seller to remain accurate or “truthful” in their description of the item that they are trying to sell. Dellarocas contradicts that idea in her study. She found that this type of feedback rating system actually encourages sellers to “lie” or not be completely accurate in their product descriptions every so often since there is little to no repercussion. Then if a negative comment is written but surrounded by multiple positive comments the negative comment is overlooked. The potential buyer generally sees at this negative comment as an anomaly and is usually willing to proceed with the transaction since the negative comments are proportionality smaller to the positive comments (Dellarocas, 2003). Fujimura and Nishihara look at the buyers in their study. They contend that there is no incentive for buyers to be truthful in the comments that they write about the sellers and that there should be a ranking system for buyers. This system would show how many transactions that the buyer has participated in. The idea is

that the more transactions that the buyer has completed the more they should be looked at as an expert and their comments should have more impact in the rating system of the seller (Fujimura & Nishihara, 2003).

Overall on-line auctions are adding multiple components to their ratings systems in an effort to minimize the above risks that Dellarocas (2003) and Fujimura and Nishihara (2003) talk about. In essence these auctions are trying to take a one dimensional rating system and turn it into a multi dimensional rating system by offering other multiple ways in which to rate the transaction. However, these systems are still in their infancy and are not properly addressing the issues of false feedback or misrepresentation of items in their product descriptions. The online rating system that this paper will use to investigate the issues around these problems is eBay.

The research question that is being addressed in this study is “How can buyer’s feedback be used to identify important seller’s characteristics in an online auction?” In current studies of feedback rating systems, they all claim that there are missing components of the systems that do not properly assess what they are supposed to. This paper contends that one of the missing components of these systems is the ability to rank a seller on multiple characteristics that are important to the buyer. Therefore since there is no standard way to determine the seller’s expected performance the buyer is always blindly entering into a purchase agreement. In an e-commerce setting this ambiguity decreases the number of transactions that occur. If business on the internet is increasing as predicted by Forrester Research then it is crucial to develop an accurate rating that measures and predicts a seller’s expected performance.

## **eBay Online Auction**

eBay is an online auction site that was founded September 1995 by Pierre Omidyar and Jeff Skoll in Silicon Valley, California. Omidyar philosophy in building the online site was, “I had been thinking about how to create an efficient marketplace-a level playing field, where everyone had access to the same information and could compete on the same terms as anyone else. Not just a site where big corporations sold stuff to consumers and bombard them with ads, but rather one where people ‘traded’ with each other...I thought, if you could bring enough people together and let them pay whatever they thought something was worth...real values could be realized and it could ultimately be a fairer system-a win-win for buyers and sellers” (Bunnell & Luecke, 2000)

Though eBay is a relatively young organization, it has quickly become a force to be reckoned with. Coming from a meager beginning of two employees it has ballooned into a company with 5,200 paid employees and according to their website tens of millions of registered users (eBay, 2004). To sell or buy an item on eBay a person must first register. After that there are very few rules on what people can and can not sell. Two of the company’s key decisions early on were to “(1) let anybody sell anything, and (2) to take a hands-off approach to user transactions” (Bunnell & Luecke, 2000). Omidyar credits the success of his business to trust. He says “People won’t conduct transactions with each other unless they have trusting relationships first. That trusting relationship will only occur if they treat each other well. So there is a direct correlation between how our customers treat each other and the performance of our business” (Bunnell & Luecke, 2000).

To ensure that buyers who use eBay trust the sellers eBay has implemented a rating system that buyers contribute directly to. This system has two main components that comprise the feedback a seller receives from a buyer (See Figure 1). One is a comment posted to eBay's website that can be read externally. Two is the buyer rates the overall experience with the seller as "positive", "neutral" or "negative" by selecting a "positive" sign, a "negative" sign or a "neutral" sign. eBay uses these signs to "determine each member's feedback score. A positive rating adds 1 to the score, a negative rating decreases it by 1, and a neutral rating has no impact. The higher the feedback score, the more positive ratings they've received from members. However, a member can increase or decrease another member's score by only 1 no matter how many transactions they share" (eBay, 2004). A buyer is also able to defend or contest a negative rating when it is given to them. This is to minimize a buyer from writing negative comments unless they are valid. On the page that displays the information from the buyer's eBay also shows a score associated with each buyer and seller. The score is a cumulative calculation based on the  $\pm 1$  score. However, this idea follows that the higher the score is the more "expert" a user on eBay.

In the case of eBay the feedback rating system attempts to provide a broad system to capture a little bit of the whole experience. Buyers are encouraged to give brief written feedback but as Cosley et al states in his paper on recommender systems and user interfaces, people are influenced by previous comments (Cosley, Lam, Albert, Konstan, & Riedl, 2003). Therefore buyers maybe more likely to rate the experience more positive if the person before them rated their experience as highly positive.

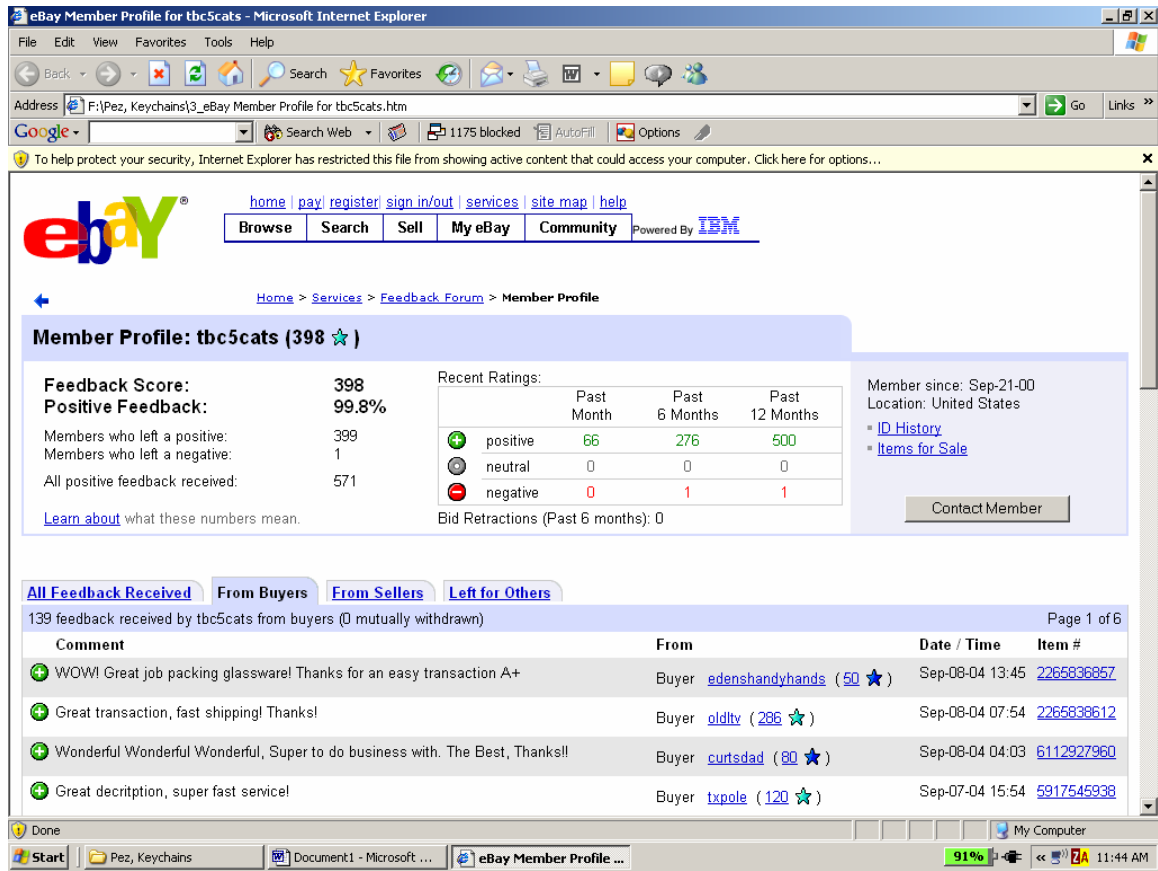


Figure 1

## Literature Review

This section will briefly discuss current research in areas of trust and performance ratings. These are two key ingredients in understanding and qualifying what motivates buyers to trust sellers in an online setting and help parse out seller's characteristics that are important to buyers.

### Trust

According to Merriam-Webster's online dictionary, trust is "reliance on future payment for property (as merchandise) delivered" (Merriam-Webster 2004). By the buyer placing a bid in an online environment and then paying for the item this by default



indicates that there is “trust” in believing what the seller says. If the buyer did not believe that the seller was truthful then they would not conduct the transaction.

Basso et al investigates how early formation of trust motivates shoppers to return for subsequent purchases. Seventy-nine participants were asked to purchase a blender through one of four interfaces that simulated a different customer service experience. The four interfaces were “(1) a standard interface with no audio or real time interpersonal communication, (2) a web interface with text and audio descriptions of the products, (3) a web interface augmented with Instant Messaging and the ability of a sales agent to push pages to the customer’s web browser, and (4) a TV-based application that allowed a salesperson to talk to the customer’s TV” (Basso, Goldberg, Greenspan, & Weimer, 2001). Basso et al reported that customers were more likely to purchase an item if they trust that the store is reliable. Also that “real-time interactivity, but not voice, increased judgments of friendliness and the trustworthiness of the salesperson” (Basso et al., 2001). This idea of early formation of trust is crucial in an online e-commerce setting, if a customer does not believe that a store is going to follow through with what they promise then they will not purchase or return to the site for subsequent visits. In addition the customer will not recommend the site to others to use either. In the case of eBay being considered a reliable seller or store, it is important to get “positive” feedback from buyers so that new perspective buyers find the seller reliable. This also means that an eBay seller should offer communication about the item in a real-time setting to the buyer.

Fogg et al identified in their study of online transactions with one thousand and four hundred participants two main elements that brought down a website’s perceived credibility or “believable information”. One, was too many commercial implications and

two, was amateurism in web design (Fogg et al., 2001). Participants in the study did not want to feel that they were being bombarded with advertisements when they were trying to make their purchases. Also participants did not find a website to be believable if details such as a dead links were found. This lack of care in the web site signaled to the participants that other details might have been overlooked. However, elements that raised the study participant's perceived trust for conducting an online transaction were real-world feel, ease of use, expertise, trustworthiness and tailoring. The more the participants felt like they knew about the seller such as through a biography, a historical sketch, listing of credentials, or policies the more likely they were to find the website trustworthy. Fogg et al also credited increased trustworthiness with the ability of the seller to personalize the overall experience to the specific buyer. The results of this study suggest some potential ways in which to increase trustworthiness by sellers in an online setting. These suggestions are crucial in refining the end result of this particular study and how to critique specific comments by buyers into distinct categories.

Lee and Nass studied the interaction between users and media factors in creating social presence in an online setting. They were specifically targeting how to increase realism in the virtual reality setting with human computer interfaces. They define social presence as "the sense that other intelligent beings co-exist with you, even if those beings are non-human and only seem intelligent" (Lee & Nass, 2003). This study also tries to incorporate the idea that people are attracted to others who are similar to themselves by pre-testing for similar personality types as defined by Myer's Briggs. Seventy-two students were used as participants in the study. They found that the more similar the website is to the "real" world the more comfortable people feel using the web. This again

reiterates the need for an on-line environment to mimic reality in creating a trusted online environment so that buyers will purchase from a specific site or seller.

Riegelsberger and McCarthy studied the effects of re-embedding using photos and how it affects consumer trust in an e-commerce setting. The basis for the study is rooted in how images of people are used to create a “positive attitude or trust in brands” (Riegelsberger et al., 2003). Virtual re-embedding is adding social clues to a website so that people feel more acclimated and comfortable using the site. They tested one hundred and fifteen participants. Riegelsberger and McCarthy findings indicated that their participants were more likely to report that a website was credible if the photo on website match the sites “brand”. In other words the consistency between the message that the seller communicates to the buyer and what the buyer perceives as the message being communicated affects the buyer’s trust level. Again this is a necessary component in establishing trust in an online environment where users do not know each other and base their impressions on what is presented to them.

From these four studies one can see how multi-dimensional the idea of trust is and how all the studies take different approaches to gauge the same concept. In the first study the idea of establishing trust early keeps a customer returning to the website to purchase an item. The second study shows the idea of having a personal experience is what helps build trust in an online setting. The third study found that by making the online setting as true to real life the more the customer deems the site trustworthy. The final study that found the content of the website needs to accurately represent what is being sold. This helps to increase consumer trust. Again each of these studies represents a different

dimension of trust and validates the idea that there needs to be a multi-dimensional approach to looking at a multi-dimensional idea.

### **Performance Ratings**

Performance ratings are considered to be the second key ingredient in establishing the basis for the research question since it supports the idea of a standard rating system for sellers. This is one of the lacking features in current online rating systems. In the case of eBay the buyers can rate a seller and provide comments but their current methods do not give a standard rating for the seller, it is simply a way in which to provide feedback.

Chilton and Hardgraves (2004) investigated performance ratings using a behavioral scale in an information technology setting for employee assessments. They combined different behavioral tests together to create their own twenty-item questionnaire. From their study they determined that for a scale to give an accurate gauge of job performance it needs to be consistent to all employees at all times. In addition the rating process is acceptable to use if the people being rated help to develop the tasks that they are being measured on. In identifying the appropriate criteria for online sellers to be rated on will also help determine how to be a more effective seller. As Chilton and Hardgraves point out this needs to be standard to all sellers with continued feedback so that the rating will have consistency.

Sein and Bostrom tested the dimensionality portion of Hackman and Oldham's Job Characteristics Theory that measures "how workers respond to job design" (Sein & Bostrom, 1991). The dimensionality portion of the theory uses a questionnaire with one hundred and three items that segments the items into six separate scales. They are job characteristics, experienced psychological states, reactions to work, individual growth,

need strength, individual social need and job effectiveness performance. Sein and Bostrom further looked at the breakdown in the job characteristics scale and eight dimensions of that scale. They determined as past research has indicated that the dimensionality portion of this theory can not be validated. Sein and Bostrom suggest that a universal job characteristics validation scale is not feasible since each job has certain nuances that are specific to that job. Therefore to create a valid job rating scale it needs to be specific to a certain job. Sein and Bostrom's findings indicate that it is important to have a standard scale specific to a certain job or setting. In applying this to an online auction versus a physical store, this study is suggesting that there are different feedback rating systems for sellers since there are different obstacles for each setting. In the case of an online auction it is more difficult to build trust from a potential buyer therefore things that are necessary for a seller to do in this environment will differ vastly in what they need to be measured on.

Xiong and Liu measured five areas of trust with a trust metric, called PeerTrust that took feedback from on-line rating systems to mathematically compute a score. In their pilot study one of their conclusions was that it is important to have multiple dimensions of trust to help decipher when a buyer is adding in "false" feedback. This is when a buyer tries to sabotage the specific seller by reporting information that is not entirely true of the transaction to lower their score. They also found that transactions were more likely to be successful if there was some historical information given about the seller, and if people in the PeerTrust system were able to select others in the system with the highest ratings to conduct their transaction. This type of system reinforces the idea

that a rating system that accurately looks at multiple dimensions of the most “trustworthy” sellers are important to the buyer.

From these studies one can see that it is important to make sure that the performance ratings are actually measuring what they are intending to. In the case of the first study so that consistency for the specific job function was measured and could be used to compare employees with the same job function. In the second study since a universal feedback rating system is not possible it is important that different scales are developed. In the third study having a multi-dimensional scale helps create an accurate rating system. All of these studies show how significant it is to create a feedback rating system that is tailored specifically to sellers in an online auction environment.

### **Purpose of Study**

This is an exploratory study to investigate desirable characteristics for a seller to possess in an on-line auction setting based on buyer’s written feedback comments and ratings from positive to negative. It is attempting to lay the ground work for future research for creating more refined systems to measure a seller’s performance and to expand on what buyers find important during the transaction. From these future systems, sellers will be able to see what characteristics they are doing well on and what characteristics they need to improve on. This study will group the common characteristics that buyers identify in their textual comments and use these characteristics to expand the traditional feedback rating system for sellers from one-dimensional to a multi-dimensional. This study’s importance lies in the fact that it is trying to identify concrete characteristics that a seller’s can refine to increase the likelihood that buyer’s will purchase their items.

## **Method**

This study is using content analysis to analyze eBay's buyer's written comments. The goal is to determine the multiple dimensions that a buyer views as important characteristics for seller to have in an on-line auction setting. According to Earl Babbie content analysis is "The study of recorded human communications, such as books, Web sites, paintings, and laws" (Babbie, 2001). This means that content analysis is used to understand what is communicated through these different types of mediums. He further goes on to qualify content analysis as "a mode of observation, content analysis requires a thoughtful handling of the "what" that is being communicated. The analysis of data collected in this mode, as in others, addresses the "why" and "with what effect...Content analysis is essentially a coding operation. Coding is the process of transforming raw data into a standardized form." (Babbie, 2001). Since the majority of the data collected for this study was textual, content analysis was the best manner in which to review at the data.

## **Sample**

Five hundred comments written by unique buyers about a hundred sellers were gathered from the on-line auction site eBay (<http://www.ebay.com>) on September 9, 2004. Five of the most recent comments by the buyers were selected from a hundred different sellers on eBay's website in five different subcategories from high level categories for a total of five hundred buyers' comments. Sublevel categories were chosen since there was not such a variance in size between them. The high level categories differed by more than five hundred auction items. The sampling approach taken for this population is the Kth element selection.

## Selection

On September 9, 2004 the entire sample was gathered from the online auction site eBay at <http://www.ebay.com>. The sample was all recorded on the same day. Since the database is continuously populated with new items there was a need to control that each of the comments selected were from a similar sized subcategory at the same time. The five subcategories selected for this analysis had roughly 7,500 items listed on September 9th. The five subcategories chosen were Classic Toys, Healthcare Medical, Pez Keychains Promo glass, Sculpture Carvings and Window Treatments.

To determine which subcategories were equal to each other on this day the click path Home>Browse>All categories on eBay was used. (Please note since the selection process has been completed eBay has changed the click path to Home>Buy>All categories.) By following this click path all of eBay's categories and subcategories are listed based on their classification scheme. On eBay's site each of the auction items listed are placed in an eBay defined category designated by their seller. By using eBay's browsing feature as defined above one sees all of its categories and subcategories listed. The categories are listed in bold letters and the subcategories are indented in regular font under the bold heading. Also beside each category and subcategory is a number that denotes how many items are currently listed in that particular section (See Figure 2).



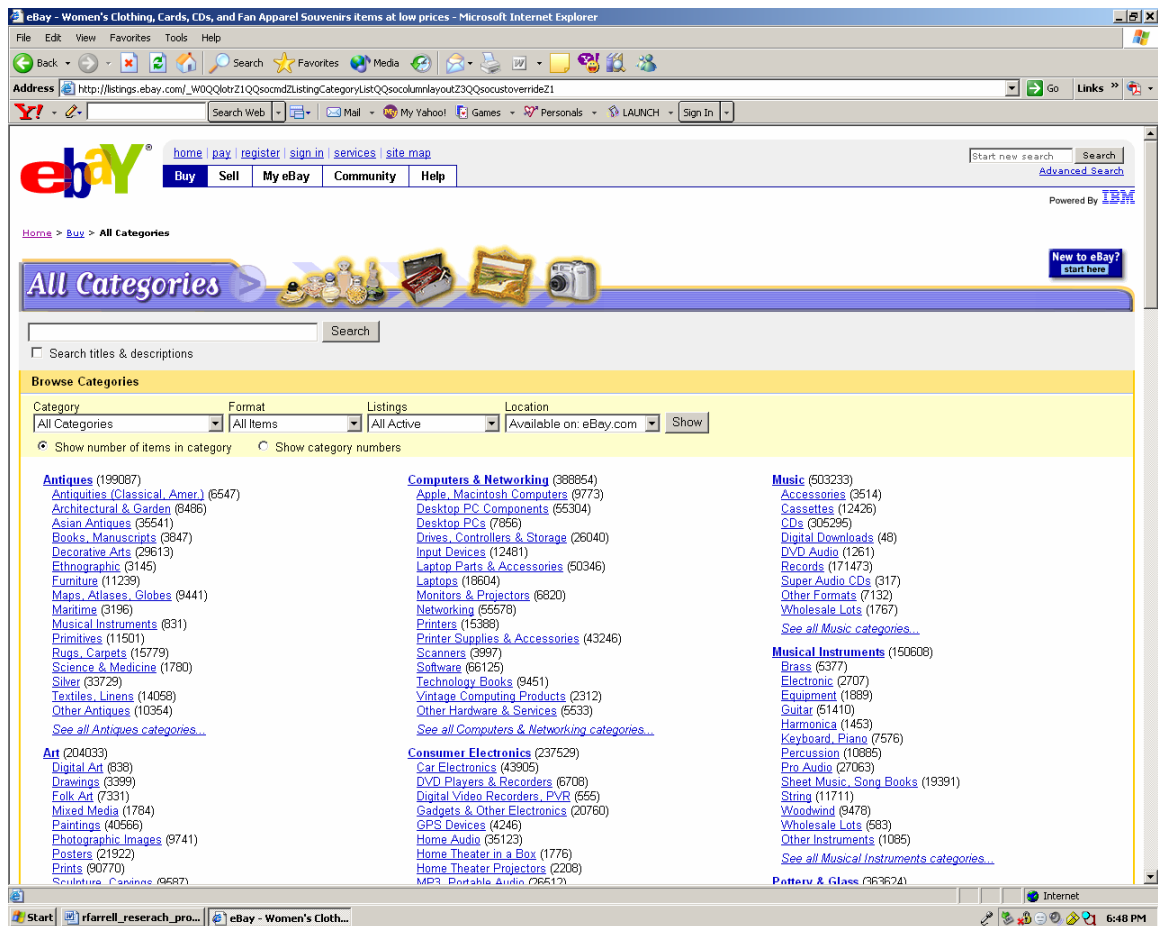


Figure 2

After it was determined which subcategories had approximately 7,500 auction items, the researcher followed the subcategory's hyperlink to go to the auction listings for that particular subcategory. Once at the location the sort feature, 'Time: newly listed' was applied to the auction items listed to ensure that the most current items that were listed were selected. There are eight different sort techniques that eBay employs on their website. They are 'Time: newly listed', 'Time: ending soonest', 'Time: ending today', 'Time: new today', 'Price: lowest first', 'Price: highest first', 'Payment: PayPal first' and 'Payment: PayPal last' (See Figure 3).

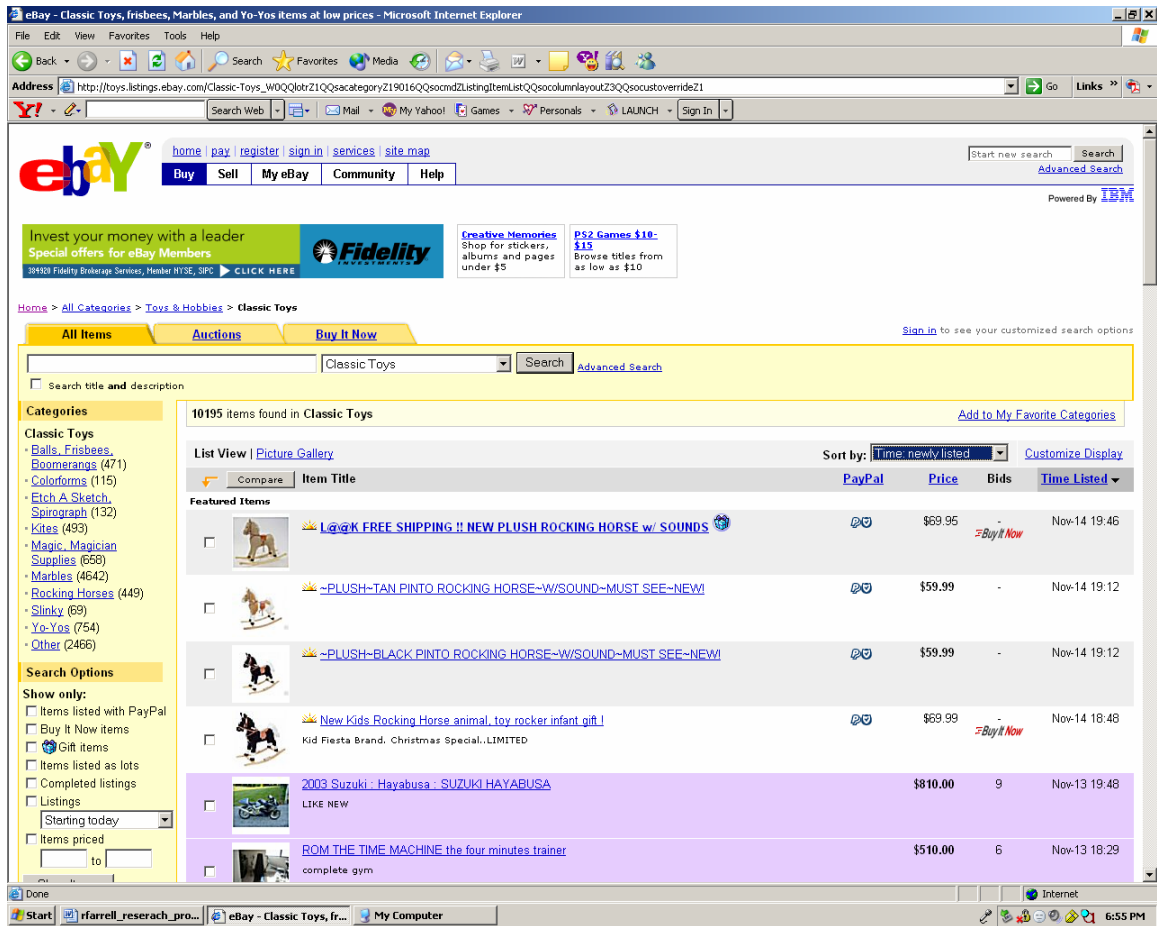


Figure 3

On this page after the auction items had been sorted using time, the  $K$ th element technique was used to select every second item listed until twenty unique sellers from a subcategory had been selected. The following selection rules were then applied to which sellers were selected.

Seller Rules:

1. Seller can not be chosen more than one time. If selected twice then the second time is discarded.
2. Seller must have a minimum of five comments written by 5 unique buyers.

3. Companies are excluded from selection process. Company is defined as having an eBay store.

If the seller met the above criteria, the researcher followed the click path to the seller's profile. The following rules were then applied to the buyer's comments to select out the sample.

**Buyer Comment Rules:**

1. Sorted comments by clicking on the 'From Buyers' tab. The default organization sort is the most recent time/date the comment was entered by the buyer. The other three sorts for the comment field are 'All Feedback Received', 'From Sellers' and 'Left for Others'.
2. Buyer can not write multiple comments for same seller. If there are multiple comments by same buyer then researcher will take one comment from the buyer per seller. Then proceed to the next comment for a unique buyer. This corresponds with eBay's rules on how they calculate a person's rating.
3. Take the first five comments written by unique buyers.

All information gathered during this phase was saved as a webpage on a memory stick (See Figure 4).

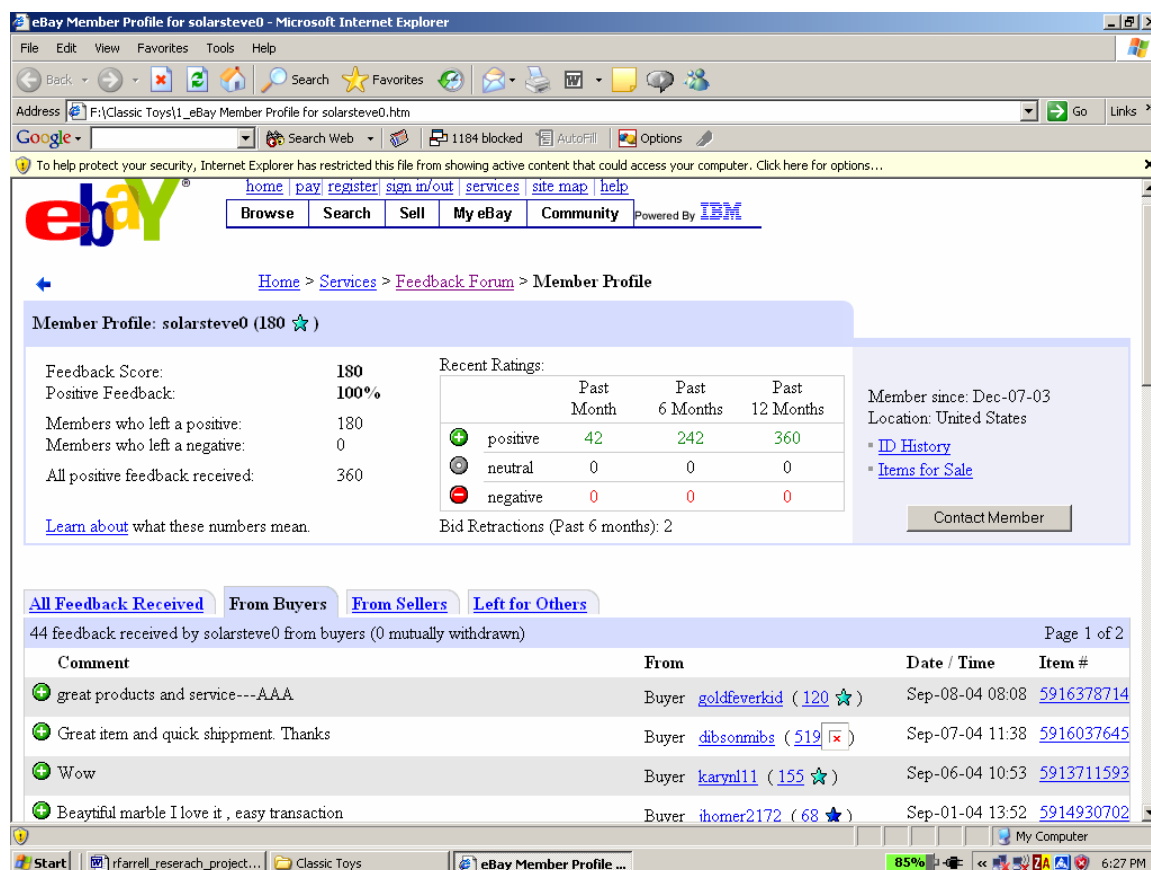


Figure 4

## Procedures

After selecting out the sellers and the comments written about them, the information was transferred manually from the saved memory stick to an excel workbook. The information transferred from the stored webpage was sub category, seller's name, number of feedback ratings for seller, comment written by buyer, buyer's name, number of feedback ratings for buyer, the sign the buyer left for the seller (can leave a positive, negative, or neutral sign) and if the seller wrote a comment responding to the sellers.

Once in workbook format the researcher initially looked through the information and realized that the majority of the comments had a positive sign associated with them

even if the comment was not necessarily positive. The researcher then read through the comments several times before using an inductive approach to apply categories to a small subset of comments. An inductive approach was applied since there were no established categories that the researcher had going into this study. Instead the researcher felt strongly that the categories should emerge from the buyer's comments. Induction is "the logical method in which general principles are developed from specific observation" (Babbie, 2001).

Based on Wang et al (2003) principle of feature extraction for creating ontologies this study used a manual coding method for buyer's comments that lead to the creation of feature categories. To create a new category the researcher extracted each word or phrase from the comment that represented one idea. As a new category emerged a definition was created for it to describe what it represented. Once the comments no longer had new categories emerging the researcher went back through the data to categorize all of the comments with the eight different feature categories and a "No feedback" category. The additional column for "No feedback" was added for comments that did not match any of words that matched the eight characteristics but still had a positive sign associated with their comment. There were three comments that were considered "No feedback." This meant that the comments were difficult to place or justify creating a new category. As a result no information was able to be gleaned from these comments.

## **Results**

After transferring the data from eBay to excel, it was noted that 487 out of the 500 buyers or 97.4% marked the transaction with a positive sign which indicates by eBay's definition that the buyer wrote a "positive comment". Based on this thirteen comment or

2.6% of data that was marked by the buyer as negative or neutral were excluded from the analysis. It was assumed that these comments were anomalous to typical eBay comments and would skew the results of this investigation. The negative and neutral comments occurred in all five subcategories being analyzed.

The eight feature categories were:

- **Quality of Product**-A comment that specifically states the quality of the item that they purchased from the seller. *Please note:* This is different from ‘match description’ since it does *not* reference in the comment anything about the seller’s description of the item.
- **Customer Service**-A comment that rates the service received during the purchase period from the seller. This includes communication between the buyer and seller, if a seller’s name is mentioned in the description, and there are no problems stated with the seller.
- **Shipment**-A comment that rates the shipment packaging, speed of shipment from the end of the auction till it is received by the buyer and if they received the item or not.
- **Positive Comments** – A comment left by the buyer that is positive reinforcement about the seller, the transaction or the product. This includes comments such as A++++, and great ebayer.
- **Gratitude** – A comment in which a buyer expresses thanks to the seller.
- **Match Description** – A comment where a buyer reports that the description of the item listed by the seller matches their expectation level, and details specific such as delivery date. *Please note:* This is different from ‘quality of product’

since it does reference in the comment anything about the seller's description of the item.

- **Recommendation** – A comment where the buyer states that they would recommend the seller, purchase again from seller, or that they have previously purchased an item from the seller.
- **Price** – Any comment by the buyer that mentions the cost of the item in the transaction.
- By extracting words in order to create the different feature categories comments could have a maximum of eight categories marked. However, if the comment was marked “No feedback” then it could not have any other boxes selected. Each comment had an average of 2.5 features being present in each comment. The frequency for which each feature category was marked as being present in buyers comments are listed below.

FEATURE CATEGORY	FREQUENCY
<b>Quality of Product</b>	180
<b>Customer Service</b>	207
<b>Shipment</b>	233
<b>Positive Comments</b>	260
<b>Gratitude</b>	175
<b>Match Description</b>	62
<b>Recommendation</b>	83
<b>Price</b>	8
<b>No Feedback</b>	3

### **Analysis of feature categories**

As stated above, by looking at the results of the frequency count the desirable characteristics of the seller emerges. In this study the feature category “Positive Comments” had the highest frequency with 260 occurrences in buyer’s comments. Two examples of “Positive Comments” there were written are “A+ ASSET TO EBAY” and “Great flag. Fast ship. Great E-Bayer.” Both comments support the idea that the buyer views the transaction as occurring in a community not just a random setting in cyberspace since the references mentions eBay as an entity. Also the first comment uses some of eBay’s slang by starting the comment with A+ to indicate that the transaction was first rate. The second comment again reiterates this community slang by writing that the seller was a “Great E-Bayer.” By having buyers feel as though they are buying from an established community helps in establishing trust to complete a financial transaction.

The next most frequently mentioned feature category was “Shipment.” Buyers were concerned with after purchasing their items that they were going to receive them and that that the items arrived intact. One comment was, “Super fast shipper. I highly recommend.” Another was “Great packaging! Fast Service!” Again if buyer goes to a physical store to purchase an item the buyer sees an actual item. In most cases from the point in which the buyer decides they are going to purchase the item it is their responsibility to safely transport the item to the register and then to their house. In an online setting the buyer has to trust that the item exists and that the seller will carefully send the item through the mail.

“Customer Service” was the third most frequently cited seller characteristic. The buyer wanted to make sure that they had some form of contact with the seller. Typically



after an auction ends in eBay a seller contacts the winning bidder to discuss the logistics of the item shipping and payment. One example of a buyer's comment was "Fast smooth transaction Great communication looking forward to future deals." By keeping a constant line of open communication the buyer knows what to expect from the seller and vice versa.

"Quality of Product" was the fourth most written characteristic in comments. Typical comments for this were "absolutely beautiful" or "Perfect article." Buyers wanted the item that they were purchasing to be in good condition. eBay attracts a variety of people ranging from bargain hunters to collectors. However, no matter which category the buyer falls into they want the product to be in good enough condition to use. Otherwise there was no point in purchasing the item.

"Gratitude" was ranked as fifth most cited characteristic. This category kept track of how many times a seller was thanked for the item. Generally a seller was thanked when the buyer was satisfied with the transaction. As simplistic as it is this category was necessary since buyer's felt compelled to use part of their feedback comment to write "Thank you once again" or "Thanks!!!!!!" In some instances this was all the buyer wrote about the transaction.

The sixth most frequently occurring feature category that emerged was "Recommendation." This category is crucial in sales. As most people know recommendations are how real estate, financial planning and small businesses get started, survive or thrive. People are more likely to buy from someone that their friend or a "trusted" agent has suggested to them. In the online setting recommendations are just as important if not more so for a seller to close a deal. In this type of setting the buyer

generally has to go by recommendations from “trusted” agents and believe that they are being truthful in their statements about the seller. The better the recommendation from a “trusted” agent the more likely the buyer is to engage in a financial transaction.

“Match Description” was the seventh most important characteristic to buyers. One comment that was written for this feature category was “Item exactly as described.” The buyer wants to know that what they purchases matches how it was marketed by the seller. It goes back to the idea of trying to having a “real world feel” by making the description evoke an image in the buyer’s mind that matches what the seller is listing for sale. In a real store setting a buyer can see the item but online they have to rely on the description of seller.

Finally “Price” was the last characteristic. It was assumed that the buyer’s typically monitored eBay for the average price on similar items and knew what to expect for price. Also since this is an auction setting the buyer has control on how much they are willing to bid for the item. The buyer is not going to pay more than they want to so that would explain why only eight comments mentioned the price of the item at all.

## **Discussion**

As shown by the results in this exploratory study there is evidence that supports further research into creating a multi-dimensional rating system that accurately measures a seller’s performance based on characteristics written in buyer’s comments instead of using the current one-dimensional system. The current system does not regulate false feedback, provide incentive for sellers to be truthful in the product descriptions 100% of the time or give an accurate rating for how a seller has performed.

The deficiencies in the current rating system not being used properly were particularly revealed when thirteen comments were thrown out since they did not have a positive sign. Also the remaining comments that did have a positive sign did not necessarily have comments that matched with their sign. Such as the three comments that did not give any feedback about the transactions. One person wrote “Although Fakes willing to settle and correct.” Another wrote “XCLT.” The last person wrote “WOO HOO.” All three of these comments made it difficult to tell anything about the transaction and if the positive sign actually was the appropriate choice for the transaction. By looking individually at the feature categories and their individual frequency counts helps to pick apart the buyers comments so that an ontology of desirable seller characteristics emerges for future research in creating a rating system.

This type of categorization system also offers a remedy to buyers trusting in an online setting where a financial transaction occurs. The more standard and accurate a rating system is for measuring a seller’s behavior the more the buyer is going to trust the seller and buy what they are selling. With e-commerce increasing this is a crucial element for future businesses succeeding.

### **Study Limitations**

There are three main advantages with this study. The first is that it is looking at another aspect of consumer trust. The second is that it tries to blend ideas from library and information science and ecommerce. The third is that it is a preliminary study for future work in the area of online trust.

There are also three main disadvantages of this study. The first is that eBay is

continuously populated. The second is the risk of false negative feedback written by either the buyer or the seller. The third is this was a small sample size in respect to the entire eBay population.

## **Conclusion**

In conclusion trying to look at ways to increase consumer trust on the Internet is a complicated task especially in an e-commerce setting. There is still a lot of uncertainty on how reliable the transaction is going to be on the buyer's part. Buyers are distrustful that their financial transaction will not occur as they expect and leave them with negative repercussions or loss of money. Customers communicate their lack of trust by not purchasing items on-line.

In an e-commerce setting this fundamental lack of trust is crucial to overcome. As this study noted trust is made up of many dimensions which makes it hard to qualify or quantify in an experiment all the dimensions. Internet businesses are starting to recognize that actions must be taken to increase consumer trust and have implemented feedback rating systems. However these one dimensional systems do not adequately capture all the information needed in a standard way.

By doing content analysis on five hundred of eBay's buyer's comments this study found eight distinct features categories that emerged. These feature categories that were identified match the problems that have been identified in earlier studies conducted in various disciplines. This study identified several keys areas that needed to be researched further before an accurate rating system for seller's characteristics can be produced. The key areas are real-world setting, shipping, communication, merchandise quality and

marketing. The more that a seller can provide proof of trust in an online setting the more likely buyers will be to buy from them and the more e-commerce will continue to grow.

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