eBay, Trust, and Emergent Themes: Does Feedback Really Help?

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INTRODUCTION

In 3rd quarter 2004, sales on eBay jumped 52 percent to nearly $806 million, topping consensus estimates of $780 million. For fiscal 2005, eBay said it expects revenue to be as high as $4.2 billion, in line with analysts' estimates (CNN/Money, 2004). With the increasing popularity of online auction sites such as eBay, seller feedback has been seen as a tool or guide to the quality of both individual and commercial vendors. The New York Times reports, of eBay's 114 million registered users, roughly 90% are buyers (Tedeschi, 2004). Users of electronic commerce sites have come to rely on other users' ratings of sellers, vendors and manufacturers. Fundamentally, at the heart of this issue is user trust. According to a study conducted by the Ponemon Institute and TRUSTe, in the summer of 2004, eBay is the most trusted e-commerce site on the internet. eBay's community-based approach to e-commerce is likely a major factor in instilling trust among its users. The combination of feedback — comments that help users build credibility and establish positive reputations — and an in-house customer support team create a safe environment whereby users feel protected (Greenspan, 2004). While customer service has fulfilled the roles of monitor, mediator and arbiter, the feedback system has become the initial basis for trust in eBay's auction environment.

When shopping eBay's auction site, users are presented with summary information such as a vendor's "ranking score" that is frequently used to help make the initial filtering decision regarding which vendor's offerings users wish to investigate further. These scores are given by customers who have purchased goods from the vendor previously. Accompanying these scores are textual comments about the customers experience with the vendor. While users can view these comments, they are not presented on the same screen as the list or detail of the products. Instead a summarized percentage or rank score is given. With the increased dependence on feedback to support a trust model, do these comments really provide the kind of information that a user needs to know to determine whether or not to trust a particular seller? And if so what do these comments really tell the reader? In examining eBay feedback policies, the service implies that feedback is a good way to validate the quality of the individual with whom you are considering having a transaction, suggesting that feedback is a significant part of the individual's online reputation. For example on eBay's site, under a page titled "building your reputation," the site sates: "Your feedback profile -- m*ade up of comments and ratings from users who have traded with you, your feedback profile is the most important aspect of your reputation at eBay. Be the best and most responsive buyer or seller you can be, and good feedback will follow.*" To answer the questions raised above, I have examined the emergent themes from eBay user's feedback in a pilot study. The themes may help better understand exactly what value should be placed on eBay feedback comments. This paper is organized as follows: the next section presents a brief background, followed by the pilot study methodology and design, results, limitations, and conclusion.

BACKGROUND

eBay has implemented an extensive feedback system to provide buyers and sellers a method of evaluating whether or not to do business with a particular individual. This community evaluation method has been successful in creating a perceived trust-secured environment as noted in the Ponemon Institute study. eBay feedback is a primary resource for buyers to determine the trustworthiness of a seller. It may be helpful to define feedback in this context. In its simplest terms, feedback is the process of providing details about an experience after it has been experienced.   eBay defines feedback in the following manner:

Feedback is made up of comments and ratings left by other eBay members you've bought from and sold to. These comments and ratings are valuable indicators of your reputation as a buyer or seller on eBay.

For each transaction, only the buyer and seller can rate each other by leaving feedback. Each feedback left consists of a positive, negative, or neutral rating, and a short comment. Leaving honest comments about a particular eBay member gives other Community members a good idea of what to expect when dealing with that member.

The feedback system is easy to understand. You receive:

- +1 point to your feedback score for each positive comment and rating left for you.
- 0 points to your feedback score for each neutral comment and rating left for you.
- -1 point to your feedback score for each negative comment and rating left for you.
- A feedback star once you have 10 or more comments and ratings left for you.

It is clear that the eBay definition of feedback implies that trustworthiness, reputation, and community standing can all be determined from buyer feedback (as well as seller feedback). The feedback point system is primarily a guide for the ratio of feedback scores, which is basically a 3 degree scoring system. The point system does provide a potential measure of the number of feedback comments received, which in the case of positive feedback would contribute to the overall appearance of trustworthiness. However, the point system alone does not provide the granularity necessary for a user to be able to make a determination about the trustworthiness of a seller simply based on the points; underscoring the emphasis on user feedback comments. The content of feedback comments may not effectively communicate the elements of trust. Further defining trust in this system is complicated by user's interpretation of the meaning of trust.

A recent study of how buyer experience in online auctions affects the dimensionality of trust in sellers (Chong, 2004) presented a model that measures buyer's trust in sellers. This definition of trust is the same definition that I use in this study and is based on three dimensions: integrity or seller honesty (Cheung and Lee, 2000), benevolence or the general "goodness of the seller" (Sako, 1992), and competence or the seller's skills and ability to deliver the goods or services (Barber, 1983). In utilizing eBay's online auction site, buyer feedback about a seller is one of the richest sources of information in formulating a degree of trust based on these dimensions. However, the number of feedback comments gets prohibitively large to be useful for determining trustworthiness. While eBay provides methods for filtering to display just positive or just negative comments, there is no easy way filter, search or otherwise limit the number of comments, to assess which characteristics of trust can be found or are missing in the feedback. Because of the importance of buyer feedback in this context, my study conducts a content analysis of feedback content to determine if the emergent themes are consistent with the trust definition evaluated in Chong's work.

DESIGN & METHODOLOGY

This pilot study collected a random sample of feedback comments from eBay vendors' feedback. The number of feedback was restricted to 5 eBay sellers. In the interest of keeping the scope of the content analysis reasonable, I limited the number of feedback comments to sellers with less than 100 feedback comments. To collect the sample data, I wrote a C# program that would randomly select a seller from a really simple syndication (RSS) auction feed (http://www.freebiddingtools.com/rss/), which was searched for the key word "printer." The RSS feed returned results that were numbered with an internal RSS number. The C# program randomly generated numbers until one of the random numbers matched the RSS number. The C# program then retrieved (spidered) the selected user's feedback, from eBay. The number of seller feedback results was examined to see if it was less than 100. If it was not, the selection

process began again. If the feedback was less than 100, the feedback was stored in a Microsoft Access database. Only seller feedback was collected.

Four additional users were chosen from the users who left feedback for the first randomly selected user. Again only seller feedback was used and the original criteria also applied. Each feedback comment from the original user was given a number and the four users were selected randomly using the same method as the original selection. At the end of this process 5 user's feedback was collected for a total of 147 feedback comments. Each user's information was tagged with an MD5 hashed version of their user identification and their username removed from all of the content to ensure anonyminity. Per eBay user, the feedback quantities were as follows: user1 – 35, user2 – 14, user3 – 6, user4 – 63, and user5 – 30.

To perform the content analysis, I wrote a database application that would allow coding of each user's feedback. Screen shots of this application and the data model can be found in Appendix A.   Figure 1 shows the Feedback coding screen.   Excerpts in this application are pieces of a Document. For the purposes of this study a document was all the feedback for a user and an excerpt was a single feedback left for the seller. This allowed the feedback "document" to be sliced up into

Figure 1, Feedback coding screen

individual "excerpts." Once the document had been parsed into its individual excerpts, codes were assigned. The codes were created based on the emergent concepts as the content analysis was conducted.
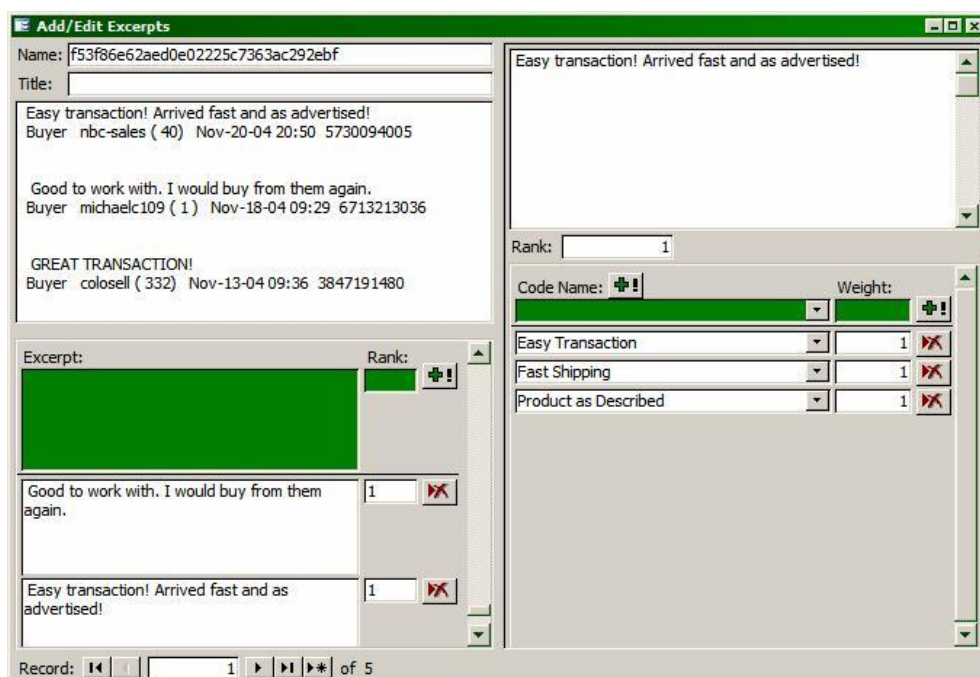
The assignment of codes to an excerpt can be seen on the right side of Figure 1. Within the coding application both the excerpt and the codes have an attribute that allows some rank or weight. For the purposes of this study I used these attributes to store 1, -1, or 0, depending on whether the excerpt was positive, negative or neutral.   The same numeric code was given to the content concept/theme code assigned.   This was done to address the possibility of an excerpt having one weight and a code potentially having another. An excerpt may be rated as positive yet the concept found in the excerpt could be negative. For example "great transaction, but the price was too high." If a feedback comment had multiple concepts contained in the single excerpt as shown in Figure 1, each pertinent code was assigned to that excerpt. No duplicate codes were assigned to a single excerpt; the coding application data model ensured that this was not possible.

Once the conceptual codes were assigned to all of the excerpts, the codes were reviewed and aggregated into parent themes, and then further synthesized into trust dimensions.   The synthesis of the codes was done by assigning a parent "code" within the coding application. The coding application also provided the framework to summarize and quantify the results of the coding.

RESULTS

The content analysis identified only 2/147 negative feedback comments and 1/147 neutral feedback. In both cases of the negative feedback, the seller had responded with an explanation. For example:

Sent money never received item!!!!! Not a good person to do business with.

Reply: I was threatened,called a liar and have receipt to prove i mailed it,enough said

The other negative feedback was similar, where it was difficult to determine who was actually telling the truth. As a result I have excluded the negative and neutral feedback from the content analysis. It is interesting to note however, the proportionally low number of negative feedback in the sample. Of the 144 positive feed back comments the most prevalent concept 65/143 was "fast shipping." Table 1 shows the concepts and the number of occurrences found in the positive feedback. Additional examples of coding concepts and their associated excerpts can be seen in Appendix B.

The emergent themes are summarized by Table 2 below. The emergent themes were constructed by aggregating the concepts seen in Table 1 into categories. For example, both "good shipper" and "fast shipping" were consolidated into the single theme "shipping attributes." Again it is clear that the dominant theme is shipping attributes. It is interesting to note here that gratitude is also a dominant theme. Comparatively price is not a dominant factor. This may be caused by the fact that on eBay the price is not necessarily set. By definition auction prices are set at market value, so the sense of a "good" price is subjective.

Once the themes were determined these themes were further aggregated in to the trust dimensions defined by Chong's trust measurement model. A graphical representation of the concepts, themes, and dimensions can be found in Appendix C. Most of the themes fit into the defined dimensions given by Chong et al. except two additional dimensions that appeared in addition to the three expected dimensions: the two additional dimensions were gratitude and referral. However, these two dimensions could be considered as a by product or the result of the three trust dimensions.

Concept	NumOccur
Fast Shipping	65
Thanks	46
Nice Seller	39
Quality Product	39
Product as Described	29
Good Communication	22
Easy Transaction	16
Recommend	11
Good Transaction	11
Fast Transaction	11
Good Packaging	10
Will Buy From Again	7
No Mistakes	6
Product in Good Condition	5
Good Service	5
Good Price	5
Fast Service	2
Exceeded Expectations	2
Honest Seller	2
Professional	2
Good Experience	1
Good Shipper	1
Poor Product Quality	1
Seller Repaired	1
Helpful	1

Table 1, Feedback concepts

Theme	NumOccur
Shipping Attributes	81
Seller qualities (personalities)	47
Gratitude	46
Transaction Attributes	44
Product	40
Buyer Expectations	31
Communication	22
Recommendation	18
Service	5
Price	5
Buying Experience	1

Table 2, Feedback themes

Dimension	NumOccur
Competence	198
Benevolence	47
Gratitude	46
Integrity	31
Referral	18

Table 3, Trust dimensions

Table 4 shows each trust dimension and the number of occurrences in the excerpts. It clearly shows competence as the dominant dimension, outweighing the other dimensions by more than a factor of three, even if the gratitude and referral dimensions are included in either of the two remaining dimensions. The content analysis in this pilot study shows that eBay feedback can provide the information necessary for users to determine the trustworthiness of sellers.

LIMITATIONS

As a pilot study, the most significant limitation in this work is the sample. The limitation of sellers with less than 100 feedback comments also may reduce the generalizability of the study findings because this sample could be considered inexperienced or "non-professional" sellers. It may be interesting to investigate whether these sellers are representative of the eBay seller population or compare how these low feedback count sellers compare to the volume or professional sellers. Having a large amount of feedback adds significantly to credibility of the individual seller, because it reinforces the fact that the seller has not changed accounts or hidden behind many different account names.

Since auction sellers are known by pseudonyms that can be changed without fee, the consequences of poor reputation can be easily overcome. Even if a seller has acquired a good reputation, there is a temptation to abandon it and engage in opportunistic dealings, knowing that he or she can always lose a bad reputation by starting over again with a new pseudonym (Chong, 2004). Because both seller and buyer feedback is included in the user rank, it might be an indicator of general "quality" of individual – for example a person could be a horrible seller (100% negative feedback) but a wonderful buyer (100% positive feedback) – this individual would have a "mid level" rating. The key to utilizing the scoring system is as a measure of the quantity of feedback received. This scoring number provides an effective measure of many people have interacted with a seller.

The products that the sellers were selling may be a limitation in this study because the feedback did not identify what the sellers were selling. There was no way to categorize the sellers based on products. Different products may have different characteristics relative to the trust dimensions. It could also be argued that the content analysis is also not a precise science and the study did not take into account potential diversity in the classifications. However, the coding results are presented in their entirety here. The results in this study may be significantly limited to eBay and the sampled selections. It may be possible to extend the study sample size to be large enough to satisfy generalization of the findings. Future works should also include validation of the coding.

CONCLUSION AND FUTURE WORK

This pilot study identified the emergent themes in eBay feedback and then compared those themes to an existing trust model. The dominant emergent themes are shipping attributes, seller qualities, gratitude, and transaction attributes. The themes are consistent with the trust model dimensions with seller competency, being the most common dimension. eBay seller feedback can provide the information a buyer needs to form a trust opinion. The effectiveness of eBay's community trust based system can be found in the combination of both the feedback system as well as the scoring system. The finding of a disproportionate few negative feedback responses was surprising and suggests that the pilot study should be extended to incorporate content analysis of just these feedback comments. In the future work for this research, I will expand on the limitations of the study's sample size and selection. Additionally, further investigation of negative feedback comments will be examined to determine if negative feedback adheres to the same model.
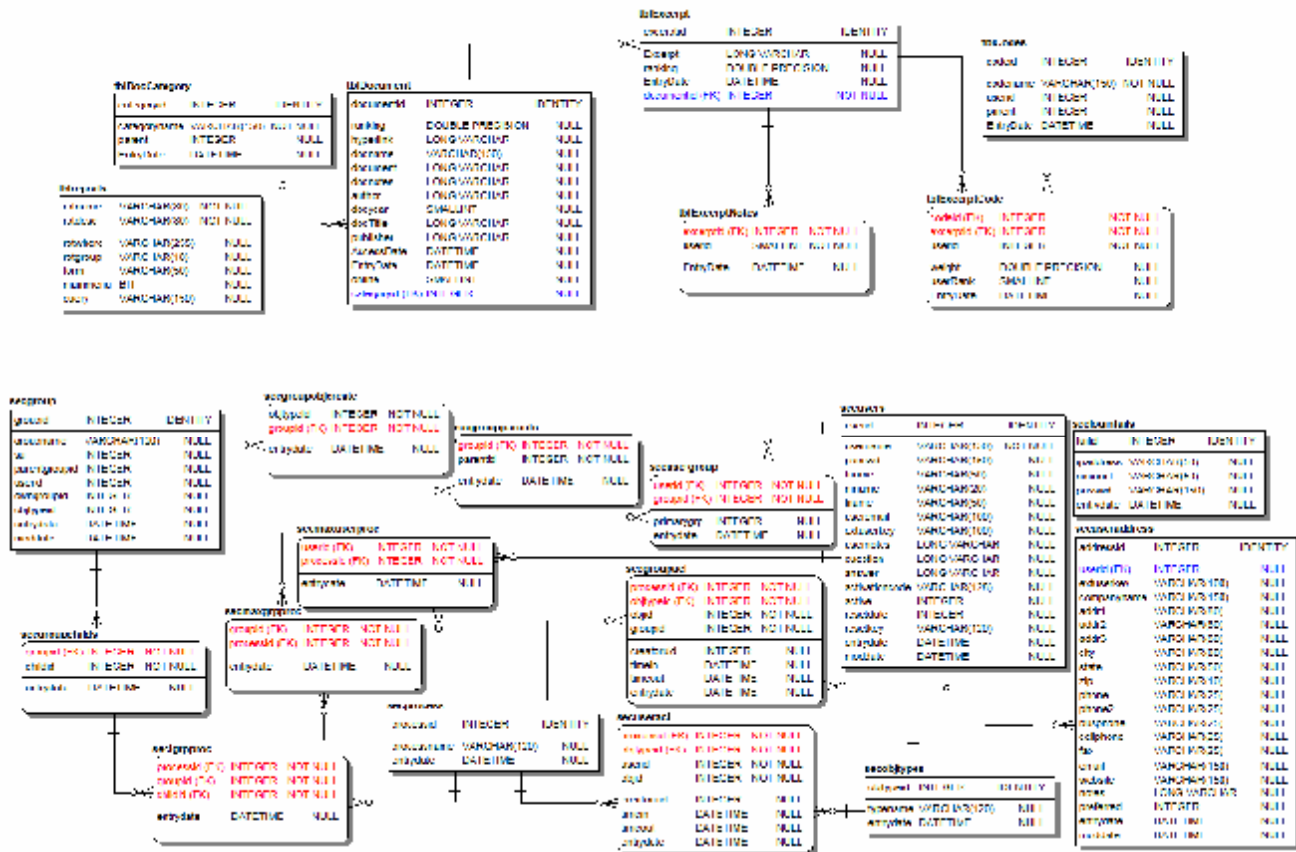
REFERENCES

Barber, B., (1983). *The Logic and Limits of Trust*, Rutgers University Press, New Brunswick, NJ, 1983.

Cheung, C., and Lee, M. K. O., (2000). "Trust in Internet Shopping: A Proposed Model and Measurement Instrument," *in Proceedings of the Sixth Americas Conference on Information Systems*, M. Chung (Ed.), Long Beach, CA, 2000, pp. 681-689.

Chong, B. (2004). "How Buyer Experience in Online Auctions Affects the Dimensionality of Trust in Sellers: An Unexpected Finding." *International Conference on Information Systems Proceedings*. 2004

CNN/Money, (2004). eBay Tops Forecasts, [Online] <http://money.cnn.com/2004/10/20/technology/eBay/> (December 12, 2004)

Greenspan, R., (2004) Internet.com, Consumers Trust eBay. [Online] <http://www.ecommerce-guide.com/news/research/article.php/3369451>, (December 12, 2004)

Lacity, M.C. & Janson, MA (1994). "Understanding Qualitative Data: A Framework of Text Analysis Methods." *Journal of Management Information Systems* (11:2), 137-155.

Sako, M., (1992). *Prices, Quality, and Trust: Inter-firm Relations in Britain and Japan*, Cambridge University Press, Cambridge, England, 1992.

Schön, D. A. (1987). *Educating the Reflective Practitioner*. San Francisco: Jossey-Bass.

Tedeschi, B., (2004) eBay Lends Hand to Dropoff Stores, *New York Times*. [Online], <http://www.nytimes.com/2004/08/30/technology/30ecom.html>, (December 12, 2004)
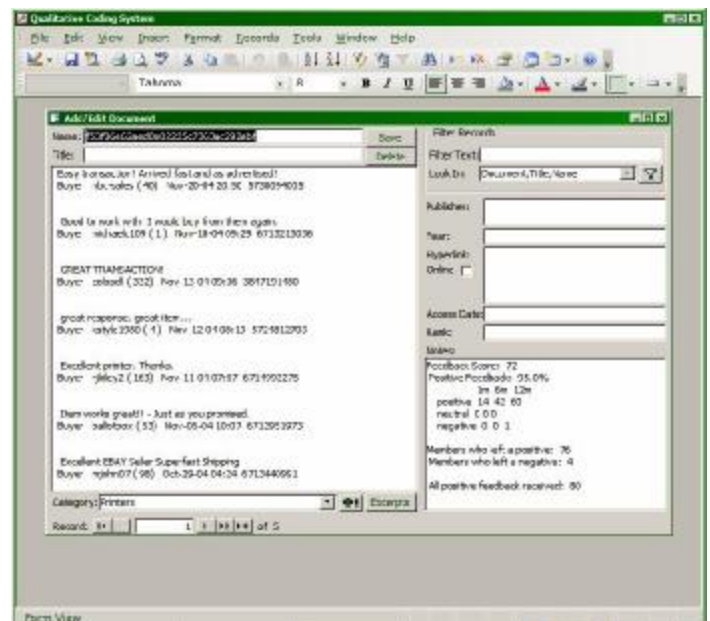
The qualitative coding application was built using VBA in Microsoft Access to facilitate easy document cutting and pasting, as well as Access' inherent searching, filtering and updating capabilities.
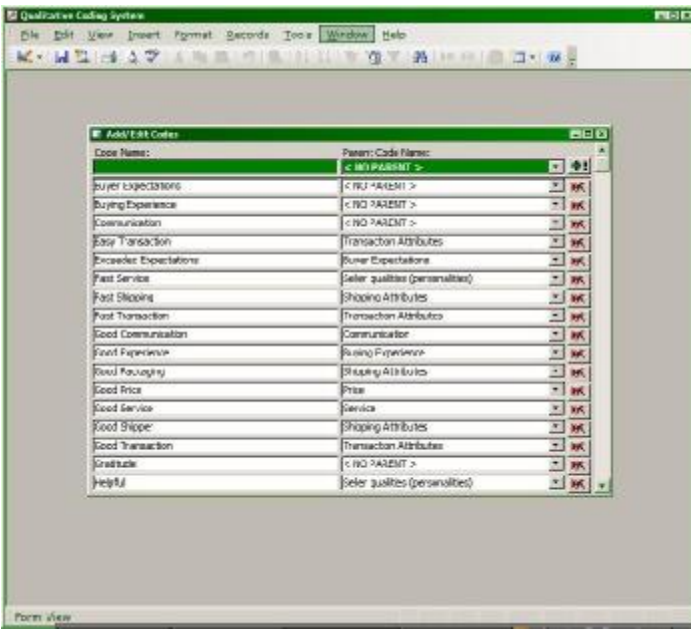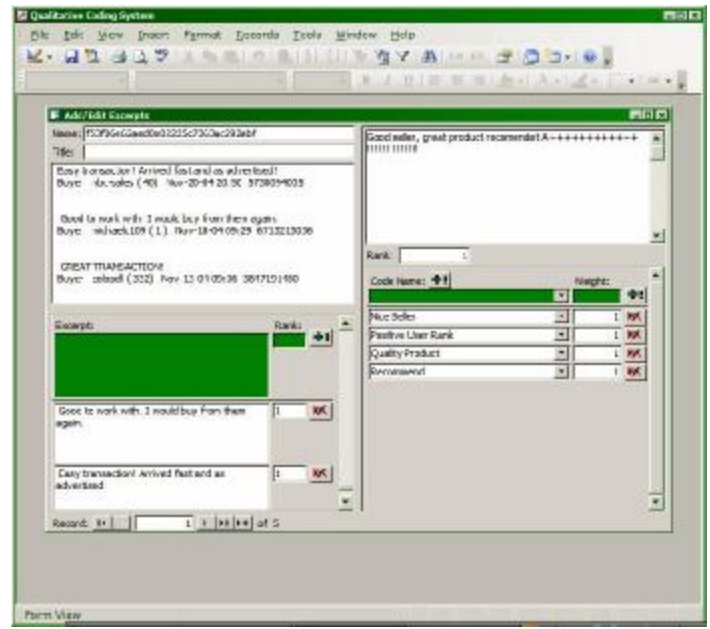

Data Model

Coding Application Main Menu

Document Screen

Add/Edit Codes Screen

Add/Edit Excerpt Screen

APPENDIX B -- CODING AND EXCERPT EXAMPLES

CODE	EXCERPT
Fast Shipping	Great Seller - Item as described, fast shipping. Totally professional.
Good Communication	Couldn't have went smoother, great communication, prompt delivery
Quality Product	Beautiful BAG, love it THANKS. Great eBayer!
Thanks	Nice auction! Thanks!
Nice Seller	This is a good lady, ya'll! Very kind, honest, and a great communicator! A+ Ü
Easy Transaction	easy transaction, would do business again
Product as Described	Item just as described. I'm very pleased with my purchase!
Good Price	Much more than I ordered. Excellent value and prompt service. An eBay asset!
Good Service	Great service! Fast and friendly!
Professional	Great Seller - Item as described, fast shipping. Totally professional.
Fast Transaction	Great service! Fast and friendly!
Good Packaging	Good Transaction - Product as Listed - Carefully Wrapped - Received in a week!
Product in Good Condition	Excellent condition; prompt service & delivery, A=
Will Buy From Again	Perfect condition - like new. Would love to do business again A+++
Exceeded Expectations	Much more than I ordered. Excellent value and prompt service. An eBay asset!
Good Transaction	Nice auction! Thanks!
Honest Seller	This is a good lady, ya'll! Very kind, honest, and a great communicator! A+ Ü
No Mistakes	PERFECT TRANSACTION!! ITEMS EXACTLY AS DESCRIBED!! VERY PLEASURABLE EXPERIENCE!!
Fast Service	Excellent condition; prompt service & delivery, A=
Good Experience	PERFECT TRANSACTION!! ITEMS EXACTLY AS DESCRIBED!! VERY PLEASURABLE EXPERIENCE!!
Positive User Rank	A+++ Adorable! Thank you so much!!!
Recommendation	easy transaction, would do business again