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Impact of Dynamic Pricing in Online Auction -Ebay

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ABSTRACT:

This journal delves into the impact of dynamic pricing within online auctions, focusing particularly on platforms like eBay. It investigates how fluctuating prices in real-time affect buyer participation, seller earnings, and the perceived fairness of the bidding process. Drawing insights from a survey of 100 users in Coimbatore, the study presents a blend of quantitative data and user feedback to evaluate satisfaction levels, awareness of pricing mechanisms, and common concerns related to price transparency and bidding practices. While dynamic pricing has shown to enhance seller revenue and platform engagement, it also brings challenges such as last-minute price surges and limited buyer understanding. The findings emphasize the importance of improving pricing clarity, educating users, and introducing fairer auction controls to create a more trustworthy and efficient online marketplace.

INTRODUCTION

Online auctions have transformed the way people buy and sell goods, making e-commerce more engaging and competitive. Unlike traditional auctions that require bidders to be physically present, online platforms like eBay and Amazon allow global participation from the comfort of one's home. Buyers can place bids with just a few clicks, and sellers gain access to a broader audience. One of the most crucial elements of an online auction's success is the pricing strategy, how prices are set can influence bidder interest, revenue, and the overall auction experience. Dynamic pricing, where prices shift in real time based on demand and activity, is one of the most effective strategies used today. It gives sellers flexibility to raise prices during high interest or reduce them to attract last-minute bids. Algorithms and market data play a major role in this, creating a fast-paced and competitive environment. While this benefits both buyers and sellers, it also raises concerns about fairness, transparency, and user satisfaction. Technologies like AI and machine learning are increasingly shaping these pricing strategies, helping sellers predict bidder behaviour and make better pricing decisions. As a result, online auctions are becoming more personalized and efficient.

STATEMENT OF THE PROBLEM:

While dynamic pricing has enhanced seller earnings and auction engagement, it also presents challenges. Frequent and unpredictable price changes can confuse or frustrate buyers, sometimes discouraging participation. There are also concerns about fairness when pricing algorithms set unreasonable prices or when bidding lacks transparency. To ensure dynamic pricing works for everyone, a balance must be found, one that maintains excitement while ensuring fairness and clarity.

OBJECTIVES:

- To study how dynamic pricing influences bidder participation and satisfaction.
- To assess its impact on seller revenue and highlight associated risks.
- To evaluate the fairness and transparency of dynamic pricing models.

RESEARCH DESIGN:

This study adopts both quantitative and qualitative approaches for a fuller understanding of dynamic pricing's effects.

Data Collection: Online surveys conducted via Google Forms.

Analysis Methods: Percentage analysis and weighted average calculations.

Sample Area & Size:100 responses from Coimbatore.

COMPANY OVERVIEW – eBay:

Founded in 1995, eBay is one of the world's largest online marketplaces, known for its auction-based sales model. Sellers list items with a starting bid, and buyers place bids within a fixed time. It also offers a "Buy It Now" feature for immediate purchases. A key feature is its automatic (proxy) bidding system, bidders set a max limit, and the system increases bids automatically to maintain their lead. This dynamic pricing model encourages participation and can boost final prices through bidding wars. However, rapid price changes can be off-putting for some users, raising questions about fairness. Despite these challenges, eBay remains a major player in online auctions thanks to its evolving pricing systems and global reach, giving sellers access to diverse customers worldwide.

IMPACT ANALYSIS OF EBAY'S AUCTION SYSTEM:

eBay's model has contributed to its strong market position. It earns revenue through listing and final value fees (typically 10–12%), while offering buyers a chance to win items below retail value especially when demand is low. For sellers, auctions often result in higher-than-expected profits due to competitive bidding. Buyers also benefit from access to rare or discontinued items. That said, the unpredictability of auctions can work both ways and some buyers get great deals, while others may overpay in high-demand auctions. Nonetheless, the system encourages active engagement and has proven successful at balancing competition and affordability.

DATA INTREPRETATION AND ANALYSIS:

Data interpretation and analysis are the processes of studying information collected to identify patterns, trends, and insights. It involves creating sense of the data gathered throughout the research and developing appropriate conclusions. Essentially, it is about understanding what the data conveys to one and how it connects to the research issues or objectives. This phase enables researchers to draw conclusions, offer recommendations, or contribute to current knowledge in their field based on their results.

PERCENTAGE ANALYSIS:

It is the basic tool which is widely used for analysis and interpretation of primary data. The formula for the percentage analysis is

$$Percentage = \left(\frac{Number\ of\ responses\ in\ a\ category}{Total\ responses}\right) \times 100$$

WEIGHTED AVERAGE ANALYSIS:

It is the basic tool which is widely used for analysis and interpretation of primary data. The formula for the weighted average analysis is

$$weighted\ average = \frac{\sum(x_i \times w_i)}{\sum w_i}$$

Pie Chart

Price fluctuations

Category	**Responses**	**Percentage**
Very often	20	20%
Sometimes	30	30%
Rarely	25	25%
Never	25	25%
Total	100	100%

INTERPRETATION: Most respondents (30%) notice price fluctuations sometimes, while (20%) see them very often. However, (25%) rarely or never experience this, suggesting that price changes are common but not universal across all auctions.

Weighted average analysis

Response	**Assigned Score (x_i)**	**Count (w_i)**	**Product ($X_i \times W_i$)**
Never	1	25	25
Rarely	2	25	50
Sometimes	3	30	90
Very often	4	20	80
Total			245

$$weighted\ average = \frac{\sum(x_i \times w_i)}{\sum w_i}$$

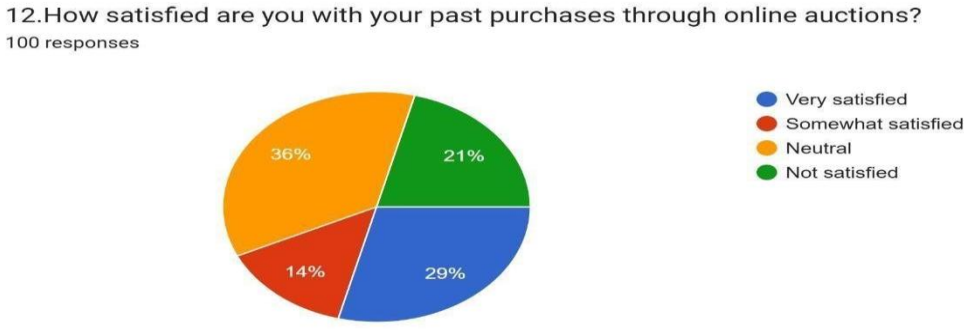
$$= \frac{245}{100}$$

$$= 2.45$$

Since 2.45 is between "Rarely" (2) and "Sometimes" (3), this suggests that most respondents notice price fluctuations occasionally but not frequently.

- This suggests a neutral to slightly negative impact, meaning eBay's dynamic pricing is not highly noticeable to most users.

Pie Chart



Satisfied with past purchases through online auction

Category	Responses	Percentage
Very satisfied	29	29%
Somewhat satisfied	14	14%
Neutral	36	36%
Not satisfied	21	21%
Total	100	100%

INTERPRETATION: Most respondents (36%) feel neutral about their online auction purchases, while (29%) are very satisfied. However, (21%) are not satisfied, indicating that improvements may be needed in auction reliability or product quality.

FINDINGS:

Most users notice price fluctuations in online auctions only occasionally—30% observe changes sometimes, 20% very often, while 25% rarely and another 25% never notice them at all. With a weighted average score of 2.45, this shows that while price changes do occur, they aren't highly noticeable to the majority of participants. When it comes to overall satisfaction, opinions are mixed but slightly positive. While 36% feel neutral about their experience and 29% are very satisfied, 14% are somewhat satisfied, and 21% are not satisfied. The weighted average of 2.51 indicates that although users generally find their experience acceptable, there's still room for improvement in terms of reliability and product quality.

SUGGESTION:

Enhance Pricing Transparency: Many buyers find auction pricing unclear, making it hard to make informed decisions. To fix this, platforms should clearly explain bidding increments, automatic bidding, and final fees. A simple price breakdown or calculator can help buyers see exactly what they are paying. Sellers should also get insights to compare their pricing with similar listings.

Limit Sudden Price Hikes: Sudden price jumps, especially at the last moment, frustrate buyers and discourage participation. To make bidding fairer, platforms should introduce gradual price increases instead of large last second jumps. A short "cool-off period" before finalizing bids can give buyers time to react without pressure.

Educate Users on Pricing Mechanisms: Many buyers and sellers are unaware of how auction pricing works, which can lead to confusion. Providing simple guides, tutorials, or short videos on bidding rules and fees will help users make better decisions and improve their overall experience.

CONCLUSION

The study found that online auctions often have a "**negative impact**" on users because they are not happy with how the bidding process works. Many participants felt frustrated and discouraged, mainly because of sudden price increases, last-minute bid changes, and a lack of transparency in the system. While some people enjoy the excitement, most find the

process stressful and financially draining, which makes them less likely to participate again. In fact, many users quit auctions completely because they feel the competition is unfair. This suggests that the current system is not user-friendly. To make online auctions better and regain users' trust, platforms need to be more transparent, create fairer pricing rules, and put measures in place to prevent unfair bidding tricks. Fixing these problems will help build a fair, competitive, and user-focused auction experience that keeps people engaged for the long run.

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