

Explore Customer Experience using Fashion Resale Mobile Apps: A Text-Mining Approach

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The fashion industry significantly impacts the environment, from textile production to clothing disposal. Fashion recycling and resale mitigate this impact by prolonging garment life and reducing landfill waste. In 2023, the apparel resale market was valued at \$193.7 billion, with projections suggesting an annual growth rate exceeding 12% from 2023 to 2027. To promote sustainable fashion, numerous resale mobile apps have emerged, facilitating the recycling and reselling of used fashion items. For sellers, these apps offer a broad audience reach, timely updates, and simplified business management. Buyers benefit from a streamlined shopping experience and the ease of sharing finds on social media (Insightlancer, 2023). Researchers have explored the intention of Chinese consumers to sell unwanted fashion items as sellers in online resale platform (Wang & Liu, 2023). Some studies also have investigated the impact of digital resale platform on second-hand luxury goods purchase intention through survey (Kim-Vick & Yu, 2023). However, there is no study attempt to understand customer reselling/buying experience through their mobile app customer reviews. This study seeks to explore the motivations and obstacles faced by customers using fashion resale mobile apps, by analyzing real customer reviews through text analysis methods to capture their authentic voices and experiences.

In this study, customer value theory is utilized to interpret the data (Zeithaml, 1988). According to this theory, customer value is considered as a trade-off between benefit and cost. Customers imply the benefit of selling/buying in their praise of the product, the service, the app design, the ease of use, etc. They also mention the cost of the experience in their negative comments. The benefit gained by customers would motivate customers to reuse this fashion resale platform to sell/buy fashion items, while cost would prevent customers continuing selling/buying through mobile apps. Researchers have utilized customer value theory to explore the benefit/cost in fashion online retail experience and found that customers place different values on different rental stores based on their competitive advantages (Lang et al., 2020). In Apple iOS system, app developers tend to request customers to rate and review apps at appropriate time throughout the using experience, such as when customers have completed an action or task (Developer, 2024). For users of fashion resale mobile apps, their reviews serve as direct indicators of their overall selling and buying experiences.

To achieve the research goal, five fashion resale mobile apps were chosen, namely, Depop, Mercari, Poshmark, The Real Real, and Vinted. These apps are selected due to their substantial user base and extensive collection of user reviews. 500 latest customer reviews from each iOS mobile apps were crawled in Oct 2023. In total, 2,500 app reviews were collected by

Python. After data cleaning, sentiment analysis of each customer review was conducted. Each review was classified as “positive”, “negative” or “neutral” based on the review rating. The cleaned and categorized data was then analyzed with Leximancer, an online text data analytical tool, to develop concept maps. These maps were instrumental in revealing the consumer experience in each platform by visualizing the main themes in the reviews. Meanwhile, this study developed word co-occurrence networks for positive and negative reviews across all platforms to see customers’ prevalent benefits and concerns when using fashion resale platforms.

The central part of the word co-occurrence plot for positive review (Figure 1) is shown here as examples. In the positive word-occurrence network, central words like “easy,” “app,” “item,” and “love,” connected by thick edges, indicate that consumers frequently commend the app's ease of use. Adjacent terms such as “customer service” and “price” highlight customer satisfaction with the app's financial value and support services. Notably, “Mercari” and “Poshmark” are often mentioned together in reviews, suggesting that consumers appreciate finding items at lower prices or available on one platform compared to the other. For example, *“The same bag listed in Mercari is more expensive, glad to find it in Poshmark”*. In the negative word-occurrence network, the central words “fake”, “scam”, “refund” highlight customer major concerns about counterfeit products, prevalent scammers, and refund difficulties. For example. A buyer mentioned in the comment *“I bought LV bag with diamond authenticated. The seller sent the fake bag. I reported the bag is fake, they asked me to use third party to prove the bag is counterfeit. I paid \$30 to get it done. They said they have to consider if they should refund or not.”* Sellers express frustration too, with comments like *“I can't really sell anything because It's full of bots and scammers!”* These issues emerge as significant barriers, preventing customers from engaging with these fashion resale platforms for selling and buying fashion items.

The Leximancer concept maps of customer reviews from each mobile app shows consumers assign different values and hold distinct expectations of fashion resale products and services, depending on the business features of each mobile app. The concept map of the RealReal customer reviews (Figure 2) is shown as an example. The themes “items” and “apps” appears in every concept map, indicating a universal concern among buyers and sellers regarding the app experience and the products offered. The theme “designer” in the RealReal concept map underscores a focus on trading pre-owned luxury items, like high-end clothing and designer accessories, leading to dissatisfaction when counterfeit goods are encountered. Meanwhile, pricing discontent emerges because the RealReal controls product pricing through its algorithm, prompting seller complaints such as *“they reduced all the prices without advising with me”*. The theme “seller” in Vinted concept map and the theme “buying” in Depop illustrate the role variations among users. Vinted allows free listings, attracting more sellers, whereas Depop's listing fee impacts seller preferences.

In this study, we analyzed the general benefit and barriers faced by users of fashion resale mobile apps, based on customer value theory. The findings provide implication for fashion practitioner on mitigating usage barriers and fostering broader adoption of fashion resale mobile apps, based on business features of each mobile app. Strategies such as reducing the presence of scammers, minimizing counterfeit products, optimizing pricing algorithms for fair pricing, and safeguarding the interests of both sellers and buyers are crucial. Further data analysis will be conducted, segregating the benefits and costs from the perspectives of sellers and buyers.

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