

Contamination perception of second-hand clothing consumption: online vs. offline

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Abstract

Second-hand clothing is buying of goods that were previously owned by other people. Historically, second-hand clothing shopping is done in person at consignment and thrift stores. Online resale sites have emerged as the fastest-growing segment of online shopping. Product contamination, in particular, is of great concern for consumers when buying second-hand clothing. Contamination refers to consumers' disgust when they know that an object has been physically touched by someone else. As consumer behavior is different in online vs. offline channels, this study hopes to answer: Is there a difference in contamination perception of second-hand clothing between online and offline channels?

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Second-hand clothing is the buying of goods that were previously owned by other people (Roux & Guiot, 2008). Historically, second-hand clothing shopping is done in person at consignment stores, boutiques, and thrift stores (Hansen, 2010). Online resale sites, such as Poshmark, ThredUp and, The Real Real have emerged as the fastest-growing segment of online shopping (Fernando et al., 2018). These online resale shops make it more accessible for consumers to buy and sell second-hand clothing. Unlike brick and mortar retail stores, these online platforms allow peer-to-peer (P2P) selling platforms, which allow buyers to connect directly with the seller of the product (Fernando et al., 2018; Parguel et al., 2017). This P2P relationship may eliminate any perceived uncertainty that many times comes with buying second-hand products. Consumers who shop at offline stores do not know who has worn the item before them and may have preconceived product biases due to product contamination (Hansen, 2010), uncertain pricing structures (Brough & Isaac, 2012), sizing issues, and perception of damaged goods.

Product contamination, in particular, is of great concern for consumers when buying second-hand clothing. Contamination refers to consumers' disgust when they know that an object has been physically touched by someone else (Argo et al., 2006; Rozin & Fallon, 1987). This manifests typically when the other individual is unknown to the consumer.

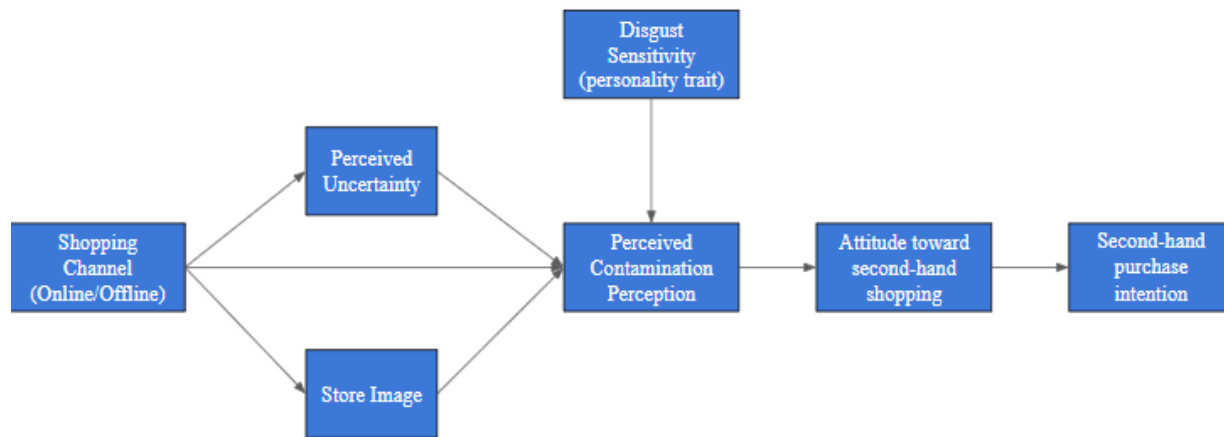
The contamination phenomenon has been linked to infected persons and the transfer of pathogens from one agent to another (Huang et al., 2017). Consumers perceive this transfer of germs as unclean and directly linked to personal hygiene issues (Edbring et al., 2015). The concept of contamination originated from the law of contagion. According to the law, when a person/object comes into direct/indirect contact with another person/object, the source will

influence the object (Argo et al., 2006). The essence of the source would then remain with the receipt even after contact has ended (Rozin & Nemeroff, 1990). With second-hand clothing, perceptions of contamination might exist since another individual has previously worn the clothing. This perceived contamination perception may act as a significant barrier to purchase for consumers. As consumer behavior is different in online vs. offline channels, this study hopes to answer: Is there a difference in contamination perception of second-hand clothing between online and offline channels?

This study looked at the differences in perceived contamination perception between channels based on specific antecedents (disgust sensitivity, perceived uncertainty, and store image) in the second-hand clothing market and the impact on their second-hand purchase intentions. Disgust sensitivity is when individuals feel revulsion evoked by an object they consider unpleasant or offensive (Rozin & Fallon, 1987). In clothing, disgust sensitivity occurs when individuals feel an article of clothing has been contaminated. Perceived uncertainty is when an individual has imperfect or unknown information on a product they purchase (Pavlou et al., 2007). With second-hand clothing shopping, consumers cannot accurately predict if the product they are buying will be contaminated or not, which creates uncertainty in the transaction. Store image is how consumers evaluate the store in their minds, both their functional and psychological attributes (Martineau, 1958). When consumers have a more favorable attitude and positive quality perception of the second-hand clothing retailer, this will create a positive store image toward the retailer (Darley & Lim, 1999).

Figure 1

Conceptual model of the antecedents of perceived contamination perception of second-hand clothing



A between-subjects (online vs. offline channel) online experiment using a scenario was performed to test the conceptual model. Participants were presented with a scenario for either online or offline shopping for second-hand clothing. The scenario read, "Remember when you were shopping for second-hand clothing in-person at a thrift or consignment store. Please answer the following questions based on your in-person (online) experience". Then questions about the participant's specific experience were asked. Participants used this scenario to answer the remaining questionnaire measures. The questionnaire contained previously known multiple-item measurements to ensure validity and reliability, which were adapted to fit the context of our study. In addition, demographic variables, second-hand clothing shopping behavior, and environmental purchasing behavior were added to the study to understand the descriptive statistics of the population better.

A total of 181 students from Midwestern Universities were recruited for the study. After data cleaning, 149 (59 online and 90 offline) usable responses remained. The participants were female (n=132, 88.6%), White (n=88, 59.1%), ages 19-23 (n=139, n=98.58%). 89.93% indicated that they shop for second-hand clothing, with the majority indicating that they prefer shopping

in-store (n=93, 62.4%). Before the experiment, a pre-test (n=19) was performed to confirm that contamination perception is an issue with purchasing second-hand clothing.

An exploratory factorial analysis was conducted to check for the unidimensionality and discriminant validity of the multi-item scales. All scales were found to be associated with an Eigenvalue higher than one and thus were found to be unidimensional and distinct constructs (Hair et al., 1998), providing support to their discriminant validity. In addition, all scales exhibited factor loadings above .67 (between .70 and .81), providing evidence of their convergent validity (Hair et al., 1998). Internal consistency of the six constructs was measured using Cronbach alpha. All showed good reliability (between .70 and .81), significantly exceeding the 0.70 thresholds (Nunnally, 1978), and exhibited acceptable internal consistency.

Before running the analysis, an assumption check was performed to test the variables for multicollinearity to ensure that the variables were not highly correlated. Results of the assumption test did not reveal any Variance inflation factor (VIF) over 1.1, which provided evidence that multicollinearity does not exist between independent variables. Additionally, the Box's M value of 4.389 and p-value of .639, which was interpreted as non-significant based on Hubert and Petoskey's (2009) guideline (i.e., $p < .05$). Thus, the covariance matrices between the groups were assumed to be equal for the purpose of MANOVA.

A MANOVA test was performed to test the hypothesis between shopping channels and perceived uncertainty, store image, and perceived contamination perception. There was not a statistically significant difference in shopping channels, $F(3, 141) = 1.634$, $p = .184$; Wilk's $\Lambda = 0.966$, partial $\eta^2 = .034$. A multiple regression analysis was run to predict perceived contamination perception from perceived uncertainty, store image, disgust sensitivity between online and offline stores. The regression analysis results for online revealed that $F(3, 52) =$

3.241, $p=.029$, $R^2 = .397$. All three variables were not statistically significant to the prediction, disgust sensitivity ($p=.105$), perceived uncertainty ($p=.170$), and store image ($p=.113$). The regression analysis results for offline revealed that $F(3, 85) = 4.230$, $p=.008$, $R^2 = .360$. Showing that the variables statistically significantly predicted perceived contamination perception. However, only disgust sensitivity ($p=.027$) and store image ($p=.007$) were statistically significant.

Finally, to test the relationship between contamination perception and negative attitude, a linear regression was performed. The analysis results revealed that perceived contamination perception did not statistically significantly predict attitude toward second-hand shopping in both online and offline channels. However, the results did reveal statistically significant results that attitude toward second-hand shopping does predict second-hand purchase intention for both online ($F(1,53) = 27.471$, $p=.000$, $R^2 = .341$) and offline ($F(1,88) = 11.960$, $p=.001$, $R^2 = .120$).

The research results help to understand better the underlying barriers to purchasing second-hand clothing online and offline. In light of the COVID-19 pandemic, more and more consumers were concerned with the contamination of their physical items. This study provides further insights into this phenomenon. The study revealed that the shopping channel does not impact contamination perception for second-hand clothing shoppers. This is an essential factor to note for online retailers, as this is a relatively new emerging shopping platform for second-hand merchandise. The study also found that consumers who shop offline are more concerned with the store's image and disgust sensitivity. In previous contamination research, literature discusses how consumers have a motivation to avoid products that might infect them with unwelcome characteristics (Meng & Leary, 2019). The results indicate the importance of offline stores portraying items as clean and not dirty when merchandised to the consumer.

References

- Argo, J. J., Dahl, D. W., & Morales, A. C. (2006). Consumer contamination: How consumers react to products touched by others. *Journal of Marketing*, 70(2), 81-94.
- Brough, A. R., & Isaac, M. S. (2012). Finding a home for products we love: How buyer usage intent affects the pricing of used goods. *Journal of Marketing*, 76(4), 78-91.
- Darley, W., & Lim, J. (1999). Effects of store image and attitude toward second hand stores on shopping frequency and distance traveled. *International Journal of Retail & Distribution Management*, 27(8), 311-318.
- Edbring, E. G., Lehner, M., & Mont, O. (2016). Exploring consumer attitudes to alternative models of consumption: motivations and barriers. *Journal of Cleaner Production*, 123, 5-15.
- Fernando, A. G., Sivakumaran, B., & Suganthi, L. (2018). Comparison of perceived acquisition value sought by online second-hand and new goods shoppers. *European Journal of Marketing*, 52(7/8) 1412-1438.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis* (Vol. 5, No. 3, pp. 207-219). Upper Saddle River, NJ: Prentice hall.
- Hansen, K.T. (2010). Secondhand Clothing. In J.B. Eicher & P.G. Tortora (Eds.), *Berg Encyclopedia of World Dress and Fashion: Global Perspectives* (pp. 232–240). Oxford: Berg.
- Huang, J., Ackerman, J., & Newman, G. (2017). Catching (up with) magical contagion: A review of contagion effects in consumer contexts. *Journal of the Association for Consumer Research*, 2(4), 430-443.

- Martineau, P. (1958). The personality of the retail store. *Harvard Business Review*, 36 (January/February), 47-55.
- Parguel, B., Lunardo, R., & Benoit-Moreau, F. (2017). Sustainability of the sharing economy in question: When second-hand peer-to-peer platforms stimulate indulgent consumption. *Technological Forecasting and Social Change*, 125, 48-57.
- Pavlou, P. A., Liang, H., & Xue, Y. (2007). Understanding and mitigating uncertainty in online exchange relationships: A principal-agent perspective. *MIS quarterly*, 31(1), 105-136.
- Roux, D., & Guiot, D. (2008). Measuring second-hand shopping motives, antecedents and consequences. *Recherche et Applications en Marketing (English Edition)*, 23(4), 63-91.
- Rozin, P., & Fallon, A. E. (1987). A perspective on disgust. *Psychological Review*, 94(1), 23-41.
- Rozin, P., & Nemeroff, C. (1990). The laws of sympathetic magic: A psychological analysis of similarity and contagion. In J. W. Stigler, R. A. Shweder, & G. Herdt (Eds.), *Cultural psychology: Essays on comparative human development* (pp. 205–232).