Modification and investment intention in the consumer-possession relationship: A love story

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Material possession “love”

- “Deeply charged emotional bonds between consumers and their possessions” (Lastovicka and Sirianni, 2011, p. 323) developed through a process of psychological appropriation or attachment
  - Different from “brand love” (Batra, Ahuvia, and Bagozzi, 2012)
- Veryzer (1999, p. 498) remarked that “… objects are held to generate feelings as they are experienced …”
  - Love, however, is more than a feeling
    - Passion (Lastovicka and Sirianni, 2011)
      - Relentless drive; hot emotion
    - Intimacy (Lastovicka and Sirianni, 2011)
      - Closeness and connectedness; physical and intellectual knowledge
    - Commitment (Lastovicka and Sirianni, 2011)
      - Decision to be in an enduring relationship; devotion to the beloved possession
Quality (or, “relationship status”) 

- Instrumental quality
  - Reliability is “the probability that a product or system will perform its intended function under encountered operating conditions, for a specified period of time which measures the quality level of the product or system over a period of time” (Boman, 2005, p. 567).

- Aesthetic quality/“sex appeal”
  - Derived from the Greek term “aisthetikos;” sense perceptions
    - Even though “experts” can claim to define “good” taste, it is largely subjective (Hoyer and Stokburger-Sauer, 2012)
      - “For a product to be successful, its sensory characteristics must strike a responsive chord in target consumers” (Bloch, 1995, p. 18).

- Social quality
  - Appraisal or evaluative perception of reference group others (e.g., friends, etc.) and the resulting status effects

- Quality, or “relationship status,” and relationship investment intentions
  - “Nurturing” behaviors by “love-smitten consumers” (Lastovicka and Sirianni, 2011, p. 324)
Vehicle modification refers to the actions taken by a user or owner of a vehicle to differentiate the structural, functional, or aesthetic characteristics or performance of a vehicle from other vehicles of the same make, model, year, option package, usage level, and mechanical and cosmetic condition.

Separate from:
• Features installed by vehicle manufacturer
• Modifications made by a prior owner
• Repairs made to restore vehicle to proper operating condition (e.g., brake pads, etc.)
# Modifications – Framework and examples

<table>
<thead>
<tr>
<th>Placement</th>
<th>Permanence</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exterior</strong></td>
<td><strong>Fixed / durable</strong></td>
<td>“A” Sticker or decal; side window deflectors; spoiler; bug deflector;</td>
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<tr>
<td></td>
<td></td>
<td>window tinting; images or letters painted on the vehicle; suspension</td>
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<tr>
<td></td>
<td></td>
<td>system; custom paint job</td>
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<tr>
<td></td>
<td><strong>Removable / consumable</strong></td>
<td>“B” Antenna “topper;” personalized license plate; holiday ornaments</td>
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<tr>
<td></td>
<td></td>
<td>(e.g., reindeer antlers) or similar items (e.g., eyelashes)</td>
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<tr>
<td><strong>Interior</strong></td>
<td></td>
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<tr>
<td><strong>Cabin</strong></td>
<td></td>
<td>“C” Bluetooth or similar system; upgrade to leather, etc., seats;</td>
</tr>
<tr>
<td><strong>space</strong></td>
<td></td>
<td>entertainment system; radio system</td>
</tr>
<tr>
<td><strong>Interior</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Internal</strong></td>
<td></td>
<td>“D” Air freshener; rubber floor mats; rearview mirror ornament; seat</td>
</tr>
<tr>
<td><strong>components</strong></td>
<td></td>
<td>covers; child safety seats; portable DVD player</td>
</tr>
<tr>
<td><strong>Exterior</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Internal</strong></td>
<td></td>
<td>“E” Engine and engine computer upgrades; fuel system upgrades;</td>
</tr>
<tr>
<td><strong>components</strong></td>
<td></td>
<td>exhaust system</td>
</tr>
<tr>
<td><strong>Exterior</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Internal</strong></td>
<td></td>
<td>“F” Brake pads; air filter</td>
</tr>
<tr>
<td><strong>components</strong></td>
<td></td>
<td></td>
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</tbody>
</table>
Modifications — Multiple motivations

- Functionality
  - “Enhance performance.”

- Aesthetics
  - “… done for looks and rarely for performance.”

- Psychological benefits
  - “… to better suit the personality of the owner.”

- Social consequences: The good and the bad
  - “… motivations for permanent modifications to the exterior is usually rooted in status.”
  - “… I know of people who have placed rims on their cars to make them appear nicer than they are.”
  - To a considerable extent, vehicle modifications that cannot be seen on the outside of the vehicle can still impact people outside the vehicle.
    - Stereo system upgrades (e.g., speakers, “amps,” and “sub woofers”)
      - Communicate identity (“To make a statement to others about whom you are.”)
      - Signal or enhance social standing (“It could also be seen as a status symbol within certain social groups.”)
      - Attract attention (“I think people are motivated to do this to look cool and show off their vehicle.”)
Vehicle modification, consumer-possession relationship status, and investment intention

• Research questions
  • Can relationship investment intention be successfully predicted by the status of the consumer-possession relationship?
    • Consumer-possession relationship status: Performance reliability, aesthetic appeal, and social approval
  • Can the status of the consumer-possession relationship be successfully predicted by the extent to which the driver has modified the vehicle?
  • Can relationship investment intention be successfully predicted by the extent to which the driver has modified the vehicle?
Overall research model

- Vehicle modification behavior
- Perceived performance reliability
- Social approval
- Aesthetic appeal

Relationship investment intention
Unlike Lastovicka and Sirianni (2011), sampling was not specifically designed to seek out automobile enthusiasts. Instead, survey of consumers above the age of 18 years and who self-reported as having access to a four-wheeled passenger vehicle for personal use:

- Telephone survey
  - Shout out to Eric Hanby
- $N = 146$
  - Male consumers (62.5%)
  - 50.7% between ages of 25 and 44
  - Vehicle ownership status
    - Outright ownership (62.3%), versus financed, leasing, etc.
- Except for categorical variables (e.g., sex, brand, etc.), items were assessed on seven-point Likert scales
  - Higher values indicate stronger agreement
Vehicle descriptive statistics - Modifications

• Relatively common vehicle modifications
  • Installation of air freshener (41.8%)
  • Application of sticker, decal, window cling (39.3%)
  • Installation of rubber floor mats (37.7%)

• Relatively uncommon vehicle modifications
  • Raised or lowered suspension (2.5%)
  • Modification to engine computer (1.6%)
  • Installation of spoiler (.8%)

• Although respondent anonymity was guaranteed, bias may remain
  • E.g., N.C. Motor Vehicle Act; fickleness of insurance companies
Measures

• Relationship investment intention \((M = 3.93, S.D. = 1.52; \text{Cronbach alpha} = .86)\)
  • Comparable to nurturing measures (Lastovicka and Sirianni, 2011)
    • Willingness to:
      • Pay for a completely optional repair that would extend the life of the vehicle \((M = 4.01, S.D. = 1.84)\)
      • Use an optional product that would make your vehicle last longer \((M = 4.19, S.D. = 1.76)\)
      • Use fluids that would make it easier for your vehicle to operate, even if the fluids were more expensive than ordinary ones \((M = 4.17, S.D. = 1.84)\)
      • Alter your regular travel patterns to reduce stress on your vehicle (e.g., avoiding potholes and stop-and-go traffic, etc.), even if doing so extended your travelling time \((M = 3.37, S.D. = 1.81)\)
  • Perceived performance reliability \((M = 6.05, S.D. = 1.18; \text{Cronbach alpha} = .93)\)
    • Rely to always work properly; depend on to get where you need; count on it to never break down; trust to start the first time
  • Aesthetic appeal \((M = 3.70, S.D. = 1.63; \text{Cronbach alpha} = .91)\)
    • Vehicle is attractive; vehicle has seductive look; nice curves and lines; really appealing look; visually appealing
  • Social approval \((M = 2.67, S.D. = 1.32; \text{Cronbach alpha} = .86)\)
    • You are known for your vehicle; people respect you for your vehicle; vehicle says good things about you; people look up to you for your vehicle; friends like your vehicle
# Vehicle modifications and model constructs

<table>
<thead>
<tr>
<th>Vehicle modifications</th>
<th>Range</th>
<th>Skew.</th>
<th>Perceived performance reliability</th>
<th>Aesthetic appeal</th>
<th>Social approval</th>
<th>Relationship investment intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>7</td>
<td>2.62</td>
<td>.05</td>
<td>.25**</td>
<td>.27***</td>
<td>.29***</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>2.35</td>
<td>-.11</td>
<td>.04</td>
<td>.13</td>
<td>.11</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>2.18</td>
<td>.01</td>
<td>.22**</td>
<td>.14</td>
<td>.30***</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>.79</td>
<td>-.11</td>
<td>.01</td>
<td>.28***</td>
<td>.02</td>
</tr>
<tr>
<td>E</td>
<td>5</td>
<td>4.86</td>
<td>.05</td>
<td>.11</td>
<td>.03</td>
<td>.19*</td>
</tr>
<tr>
<td>F</td>
<td>1</td>
<td>1.02</td>
<td>-.16*</td>
<td>-.31***</td>
<td>-.17*</td>
<td>-.17*</td>
</tr>
<tr>
<td>All mod’s.</td>
<td>20</td>
<td>2.12</td>
<td>-.03</td>
<td>.12</td>
<td>.27***</td>
<td>.22**</td>
</tr>
</tbody>
</table>

* * p < .05; ** p < .01; *** p < .001

All Skewness estimates are sig.
Analytical approach

- Exploratory factor analysis (Principal components; “Varimax” rotation)
  - Two items removed due to cross loading
  - Results
    - Kaiser-Meyer-Olkin M.S.A. = .84
    - Eigenvalues > 1.00
    - Total variance explained = 78.9%
- Then, confirmatory factor analysis
  - $X^2 = 276.28, p < .001$
  - CFI = .92
  - RMSEA = .08
- And after that, analysis of the structural model
## Structural model results

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Reliability</th>
<th>Aesthetic appeal</th>
<th>Social approval</th>
<th>Relationship investment intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle modifications</td>
<td>-0.01</td>
<td>0.13</td>
<td>0.22</td>
<td>2.60**</td>
</tr>
<tr>
<td>Reliability</td>
<td>0.12</td>
<td>1.34</td>
<td>0.10</td>
<td>1.10</td>
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<tr>
<td>Aesthetic appeal</td>
<td>0.40</td>
<td>3.92***</td>
<td>0.32</td>
<td>2.90**</td>
</tr>
<tr>
<td>Social approval</td>
<td></td>
<td></td>
<td>0.21</td>
<td>1.99*</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.00</td>
<td>0.02</td>
<td>0.25</td>
<td>0.22</td>
</tr>
</tbody>
</table>

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$
Limitations and future research

- Sample size
  - Additional data collection

- Intervening effect of material possession love
  - Passion ($M = 2.08, \text{ S.D.} = 1.13; \text{ Skewness} = 1.09$)
  - Intimacy ($M = 3.67, \text{ S.D.} = 1.37; \text{ Skewness} = .46$)
  - Commitment ($M = 2.77, \text{ S.D.} = 1.44; \text{ Skewness} = .58$)

- Material possession love versus brand love

- Trust intentions, disposal intentions, and expected selling price (against Kelley Blue Book value)
Thank you!