Pricing strategy & practice

Risk and maximum acceptable discount levels
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Abstract
Purpose – Studies on optimal discount levels have sometimes yielded contradictory results, leaving practitioners with unclear direction. This paper proposes clarifying the optimum discount levels.
Design/methodology/approach – This study asked 453 consumers to choose their own optimal discount levels (from 0-80 percent) for eight product categories across two distribution channels (physical store and online merchant). Then they were asked if the reason if they did not always select the deepest discount.
Findings – Only 13 percent selected the 80 percent discount level for each product and each channel, despite seeing the exact price they would pay at each level. In support of attribution theory, 88 percent of the consumers attributed at least one cause for the deepest discounts. Most frequently cited were concerns about quality problems, damaged goods, or stolen goods. Consumers also opted for lower discount levels from the online merchant than from the physical store. There was a wide divergence by product category, with consumers selecting smaller discounts on tires and cereal and the deepest discounts on shirts.
Research limitations/implications – Given the divergence across product categories, it is unknown how consumers would respond to categories not studied.
Practical implications – This paper has revealed strong consumer perceptions about discount risks and the tradeoffs consumer make between risk and financial benefit across different product categories, both online and off – which can help marketing practitioners in setting discount levels.
Originality/value – By allowing consumers to select their own preferred discount levels, it is shown that most customers attribute some risk to them.

Keywords Discounts, Risk analysis

Discounts signal at least two things to consumers, financial gain and potential risk. Consumers often are willing to accept an older model, factory second, less desirable style, distant retailer, etc. for a lower price. However, although lower quality or outdated style may be acceptable for some products like clothing, is it acceptable for other products that may have safety or other types of risks?
Most research on discounts, (e.g. Gupta and Cooper, 1992; Marshall and Leng, 2002; Moore and Olshavsky, 1989), show a positive correlation between intent to buy and at least some discount level. The question for marketers is what level of discount is optimal given their product category.
The best way to determine the optimal discount is to test systematically alternative levels in the marketplace. This is a relatively clear and inexpensive process for direct marketers, who routinely conduct pricing and discount levels testing, using random samples and experimental design.
For traditional on-ground distribution channels, marketers use matched geographic test markets or simulated test markets to set prices. A few “off-price” retailers use progressive discounts dependent on the time the stock is on the shelf. Discounts increase as the time on the shelf increases. This progressive discount method, although it has limitations (e.g. consumer confusion, time needed to move some products), minimizes profit losses by using the market response to specific products to determine the real value to consumers.
However, the cost of conducting matched geographic test markets and time constraints often cause marketers to use less systematic methods to determine discounts. Discounts are set based on industry convention, competitive response, or historical precedence. Using unsystematic methods of setting discounts may cause the marketer to miss sales goals, or it may result in one of two negative outcomes that may be invisible in the short term but which can have negative long-term consequences.
First, even if a specific discount achieves a managerial objective (e.g. to sell X units, increase sales by X percent, etc.), the marketer cannot know if a smaller discount would have achieved a similar sales response but with a higher profitability.
The second issue relates to consumer perceptions of the product. Deeper discounts may be associated with lower perception of quality. This lowered perception of quality may affect brand loyalty. Many national marketers who used coupons aggressively in past decades moved to “everyday low pricing” policies because they believed discount coupons eroded brand loyalty (Madan and Suri, 2001).
To determine optimal discounts, marketers must consider whether:
• higher discount levels cause lower quality perceptions;
• consumers perceive an increase in utility at each higher discount level; and
• low discount levels are effective.

Further, marketers must consider whether consumer perceptions may change due to product category or distribution channel or due to consumer attributes such as age and gender.

**Consumer response to specific discounts**

Monroe (1990) explains the overall positive consumer reaction to discounts as being due to transaction utility theory, which posits that a higher discount increases the value of the offer because it is perceived as a “real bargain.”

How consumers respond to specific discounts has been studied for a number of discount levels and product categories. Yet those results are occasionally contradictory. For example, Mobley et al. (1988) found a positive response to 25 percent discounts, and a more positive response to 50 percent discounts. Marshall and Leng (2002) concurred only for product sales, finding a greater intent to buy at each discount step from 10 percent to 50 percent (in ten-point increments), but with no additional increase at a 60 percent or 70 percent discount. For services, however, the authors found that 40-70 percent discounts were perceived no more positively than 20 percent discounts, while 30 percent garnered the most intent to buy.

Madan and Suri (2001) studied discounts vs no discounts. They found 61 percent of consumers preferred a price presented as a 30 percent discount instead of the same price presented as non-discounted. However, when presented with a discount of 2 percent or 45 percent, consumers preferred the same price presented as not discounted (at 61 percent and 75 percent respectively).

Several researchers studied consumer perceptions of very high discounts, including Kahneman and Tversky (1979), Sherif and Holvland (1964) and Ong and Jensen (1996). Each found that the higher the discount the more likely it would be discounted in determining an internal reference price. Yet, Urbany et al. (1988) found that even exaggerated, implausible external reference prices were still perceived positively by consumers.

These differing perceptions may be due to different evaluations by consumers of the utility of each discount. Prospect theory, developed by Kahneman and Tversky (1979), identifies two phases in the choice process: editing and then evaluation. In the coding part of the editing process, consumers code their choices as gains and losses, rather than as final states. A further component of prospect theory, developed by Kalyanaram and Little (1994) and others finds that customers are more sensitive to perceived loss (price discounts) than to perceived gain (discounts). Monroe (1990) explains the overall positive consumer reaction to discounts as being due to transaction utility theory, which posits that a higher discount increases the value of the offer because it is perceived as a “real bargain.”

**Discount level effects on quality perceptions**

Cognitive dissonance theory (Festinger, 1957) posits that when people are faced with contradictory information, they will use one of three tactics to reduce their dissonance. Lindsey-Mullikin (2003) found these same three tactics are used by consumers when faced with an unexpectedly high price. One of those dissonance-reduction methods is seeking consonant information, which refers to consumers conducting a biased search for information that is congruent with their previously held price assumptions. Likewise, if a discount is perceived by a consumer as “too high,” that consumer may seek reasons as to why.

**Attribution theory states that people infer causation for events. Applying this to a discounted price, consumers can be expected to attribute causes for the discount. According to Lichtenstein and Bearden (1989), who tested 34 different attributions as to why a discount was given, these attributions may be grouped into three categories:**

1. attributions due to the product;
2. attributions due to a person (or advertiser); or
3. special circumstances.

Madan and Suri (2001) looked at how a 2 percent, 15 percent and 45 percent discount for a 27-inch television set affected consumers’ perceptions of the television’s quality. They found consumers offered a 2 percent or 45 percent discount attributed a significantly higher quality to an alternative television at the same out-of-pocket price, but with no discount shown. Quality perceptions were equal for televisions when one was fixed price and the other showed a 15 percent discount.

Jensen and Drozdenko (2004) studied quality perceptions of five product categories, each with a known and a fictitious brand, at four discount levels (none, 15 percent, 30 percent and 40 percent). They found for all products combined the quality perception was not significantly different from zero to 30 percent discount levels, but dropped for the 40 percent level. Individual results showed discount level was statistically significant with quality ratings for all products except Absolut vodka and the fictitious brand of HD TV. For each of these two products, the highest quality ratings were found at the no discount level.

**Brand name effects on consumer response to discounts**

Does product brand or store brand play a role in consumer acceptance of higher or lower discount levels? There seems to be some agreement in research studies that a name brand holds its value better in a discount situation. Thus high levels of discounts for name-brand products increase intent-to-buy, while they decrease it for unknown brands. For example, Moore and Olshavsky (1989) found discounts positive at all levels for name brands, but negative at the highest levels (75 percent discount) for unknown brands.

Gupta and Cooper (1992) looked at intent to buy at different discount levels for name brands and for store brands, and found intent to buy was uniformly lower for store brands, even when those stores were name department stores. They also found consumer intent to buy rose at each discount level from 10-70 percent for name brands, but dipped in the 40 percent and 50 percent levels for store brands. They also found that 10 percent and 20 percent discount levels for store brands had little positive effect.

**Discount perception differences by retail channel**

Marketers are questioning whether the distribution channel can have a similar effect as a brand name – specifically does a physical store instead of an Internet-only location convey the
same type of reassurance as does a brand name over an unknown brand?

Moore and Olshtansky (1989) studied quality and choice perceptions between dress shirts available at L.S. Ayres, a high-prestige department store, compared to K-Mart. They found consumers were more likely to select the shirts available at the prestige department store than at K-Mart at all discount levels. They also found for both stores that choice rose from the 5 percent discount level to the 30 percent discount level, but fell back at the 75 percent discount level – although it was still higher than at the 5 percent level.

Internet shopping entails four specific risks identified by Riegelsberger and Sasse (2001). They are:
1. whether credit card data will be intercepted;
2. whether the data are transmitted correctly;
3. whether personal details they supply will be intercepted; and
4. whether they will actually receive the goods ordered.

Jensen et al. (2003) looked at the effect of external reference prices by channel, specifically a retail brick-and-mortar store vs. the Internet. They found that the effect of an external reference price is less on the Internet than in a brick-and-mortar store. Whether this is due to the ease of price shopping on the internet or a greater skepticism of internet pricing was not determined.

Several studies have shown that online shopping is perceived as higher risk than offline, including Akaah and Korgaonkar (1988). Internet catalog shopping was also viewed as more risky than print catalog shopping in a study by Vijayasarathy and Jones (2000).

Propositions and hypotheses

Instead of continuing previous methodologies of studying consumer perceptions of different discount levels, we decided to ask consumers to select for themselves the discount level they would want.

Based on the divergent results for different discount levels previously cited, we expected consumers to have differences in the discount levels chosen. These differences could be based on customer type (e.g., “bargain hunters”) or on differing levels of perceived risk:

H1. Given the opportunity to choose their own discount levels, many consumers will not accept the deepest discount.

Most price discounting research that has looked at more than one product category has showed differing optimal discount levels (e.g. Jensen and Drozenko, 2004). For that reason, we also expected consumers to select different discount levels for different product categories. Eight product categories were selected, including athletic shoes, tires, shirt, toothpaste, HD TV, cereal, shampoo and a watch. The products were selected based on certain characteristics. In particular we wanted to examine products with a wide price range in order to vary financial risk. We also selected some durable (tires, HD TV, watch) and non-durable (cereal, shampoo, toothpaste) products. Additionally we wanted to examine personal care (shampoo, toothpaste) and clothing items (shoes, shirt) within the non-durable category. Further, we wanted to examine a product (tires) where poor quality could carry a high personal risk, as well as products with low personal risk (shirts).

H2. Given a choice, consumers will select different optimal discount levels for different product categories.

Given that studies quoted previously show a perceived increase in risk as one moves from a high-quality-image physical store to a discount store to a print catalog and then to an online catalog, we expected that the maximum acceptable discount levels would differ from the physical store channel to the perceived more risky online channel.

In both distribution channel options, we wanted to avoid the extraneous variable of previous experience with an actual merchant. Thus both channels were described as ones not previously frequented by the consumer.

We attempted to control for the unfamiliarity risk factor by describing the physical store as one familiar to the consumer, but which they had not visited. For the online store, we described it as unfamiliar but certified as being safe. A study by Samji and Gray (2002) found that 87 percent of respondents said they would be reassured by websites with independent certification that they were “safe for online users”: H3. Acceptable discount levels will differ due to channel.

A number of studies have shown males to have different shopping habits to females. For example, McDonald (1994) found that women searched more than men when shopping. He was also able to classify 72 percent of females as “aimless wanderers” when it comes to shopping, compared to 23 percent of males. “Purposeful organizers” were 71 percent males and 29 percent females. With gender shopping differences this large, we wanted to know if they also extended to the evaluation of discount levels:

H4. Acceptable discount levels will differ by gender.

A number of studies have shown different responses to shopping and to pricing due to age differences. For example, Sansgiry and Cady (1996) showed young adults (18-27) considered package size and generic availability of OTC medicine to be significantly more important than did older adults (60 + ). A desire for generic availability could be seen as a desire for a lower price. McDonald (1994) found differences in the time spend shopping by younger vs older adults.

Henry (2002) looked at expressive vs functional orientation in purchase decision making and found significant differences by age. He further found the greatest difference in means between those 30 or below compared to any other age group. We therefore hypothesized that age may have a significant effect on the discount levels consumers would select:

H5. Younger respondents will differ from older respondents in acceptable discount levels.

By looking at discounts as a means of lowering financial risk, one could hypothesize that lower-income consumers would be more attracted to them than high income consumers. Where consumers can choose to pay, for example, $81 or $18 for the same name-brand athletic shoes, financial constraints would suggest a higher percentage of lower-income consumers would opt for the smallest price. The literature shows shopping differences by income levels. For example, McDonald (1994) found that higher income households searched significantly less before purchase than did lower income households. He also found those working searched less than those who were not, which could also be related to income level, in addition to time constraints:

H6. Lower income respondents will have a higher acceptable maximum discount level relative to higher income respondents.

Finally, we expected that, according to attribution theory, consumers would attribute a cause to their acceptance of smaller discounts. We further expected to find that differing types of risk would be the cause attributed:
(Survey instrument)

Each respondent was given two purchase scenarios for eight products each:

1. Scenario 1: “For each of the eight product categories, please check the box next to the largest discount you would be willing to accept. Assume that the discounted brand is a preferred brand of yours but you don’t have experience with the specific model, variety or style that is on sale. Also assume that you are shopping online, that you have not visited the web site before but it is certified as being safe and looks very professional”.

2. Scenario 2 was the same except for the last sentence, which was replaced by: “Also assume that you are shopping at a local retailer that you know about but have not visited before”.

The eight product categories were athletic shoes, tires, shirts, toothpaste, large screen HD TV, cereal, shampoo and watches. There were eight discount levels ranging from 10-80 percent in 10 percent increments. Each discount level was accompanied by the adjusted price of the product. The non-discounted list price and some major brands in the product category were also included. An example of the scale for the athletic shoe category is presented in the Appendix, Figure A1. Respondents received both scenarios and evaluated all product categories. The order of receiving a particular scenario was randomized across respondents. After completing the evaluation of the largest acceptable discounts for all products, respondents were then asked to check items from a list to indicate why they did not take the largest discount (the Appendix, Figure A1).

Finally, respondents were asked to provide data on sex, age and income. Divisions by age and income for analysis were then made by dividing each group into two at the mean level. Thus “young” became ages 21-29 and “older” became ages 30+ (the low mean obviously due to having students conducting the survey). “Higher income” became $56,000 + and “lower income” became less than that (the high mean obviously due to having students in a junior-level consumer behavior course).

Methodology

Respondents

A convenience sample of 453 respondents (234 men and 219 women) primarily from Northern Fairfield county Connecticut participated in the study. Ages ranged from the 20s to the 70s. Surveys were distributed and collected by students in a junior-level consumer behavior course.

Survey instrument

Each respondent was given two purchase scenarios for eight products each:

- Scenario 1: “For each of the eight product categories, please check the box next to the largest discount you would be willing to accept. Assume that the discounted brand is a preferred brand of yours but you don’t have experience with the specific model, variety or style that is on sale. Also assume that you are shopping online, that you have not visited the web site before but it is certified as being safe and looks very professional”.
- Scenario 2 was the same except for the last sentence, which was replaced by: “Also assume that you are shopping at a local retailer that you know about but have not visited before”.

Results

\[ H_1 \text{ that many consumers will not select the deepest discounts when the choice is theirs, was confirmed. Only 12.6 percent of respondents accepted the deepest discount (80 percent) for every product category.} \]

Tables I and II show the percentage breakdowns by discount levels, product category and channel. In no category did more than 42 percent of respondents select the highest discount. The shirt had the highest percentage of respondents accepting the highest discount with 33.4 percent online and 41.4 percent at a local retailer. Tires had the lowest percentage of respondents accepting the highest discount with 17.7 percent online and 21.2 percent at a local retailer.

\[ H_2 \text{, that the maximum acceptable discount will vary by product category, was also confirmed. There was a statistically significant main effect for Product category (} F = 78.02, p < 0.001, df = 7). Several differences between the means of the discount levels for individual product categories were also found to be significant. Adjustment for multiple comparisons was made using the Bonferroni method. Differences of approximately 3 percent are statistically significant at the 0.05 probability level (see Figure 1).} \]

\[ H_3 \text{ that discount acceptance would vary by channel, is confirmed. For all products combined, the mean percentage of respondents accepting the highest discount for online shopping was 26.7 percent, compared to 31.1 percent for products purchased from local retailers. There was a statistically significant main effect for Channel (} F = 80.0, p < 0.001, df = 1). The mean acceptable online discount was 48.3 percent and the mean acceptable maximum discount for the local retailer was 52.8 percent. The lower acceptable discount level held for all product categories (see Figure 2). The Channel \times Product interaction was not statistically significant.} \]

### Table I Percentage indicating specific maximum discount levels for online products

<table>
<thead>
<tr>
<th>Category</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoes</td>
<td>2.6</td>
<td>19.4</td>
<td>1.7</td>
<td>10.3</td>
<td>9.6</td>
<td>13.8</td>
<td>8.5</td>
<td>10.1</td>
</tr>
<tr>
<td>Tires</td>
<td>10.5</td>
<td>17.7</td>
<td>7.2</td>
<td>13.3</td>
<td>15.5</td>
<td>14.0</td>
<td>6.3</td>
<td>14.4</td>
</tr>
<tr>
<td>Shirt</td>
<td>16.8</td>
<td>16.4</td>
<td>10.7</td>
<td>14.6</td>
<td>13.6</td>
<td>12.4</td>
<td>12.9</td>
<td>13.8</td>
</tr>
<tr>
<td>Toothpaste</td>
<td>13.5</td>
<td>11.4</td>
<td>12.0</td>
<td>10.7</td>
<td>12.5</td>
<td>11.6</td>
<td>12.2</td>
<td>9.6</td>
</tr>
<tr>
<td>HD TV</td>
<td>14.2</td>
<td>10.7</td>
<td>13.8</td>
<td>11.1</td>
<td>11.8</td>
<td>11.6</td>
<td>14.0</td>
<td>13.8</td>
</tr>
<tr>
<td>Cereal</td>
<td>10.3</td>
<td>4.4</td>
<td>10.9</td>
<td>6.6</td>
<td>7.7</td>
<td>5.5</td>
<td>10.3</td>
<td>8.1</td>
</tr>
<tr>
<td>Shampoo</td>
<td>5.0</td>
<td>2.4</td>
<td>10.3</td>
<td>5.2</td>
<td>5.0</td>
<td>3.1</td>
<td>5.5</td>
<td>5.5</td>
</tr>
<tr>
<td>Watch</td>
<td>27.1</td>
<td>17.7</td>
<td>33.4</td>
<td>28.2</td>
<td>24.3</td>
<td>28.2</td>
<td>30.3</td>
<td>24.7</td>
</tr>
</tbody>
</table>

### Table II Percentage indicating specific maximum discount levels for products from local retailer

<table>
<thead>
<tr>
<th>Category</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoes</td>
<td>0.7</td>
<td>10.0</td>
<td>1.3</td>
<td>6.5</td>
<td>3.1</td>
<td>8.3</td>
<td>4.8</td>
<td>3.1</td>
</tr>
<tr>
<td>Tires</td>
<td>5.7</td>
<td>17.7</td>
<td>3.3</td>
<td>8.7</td>
<td>10.7</td>
<td>11.1</td>
<td>6.3</td>
<td>9.6</td>
</tr>
<tr>
<td>Shirt</td>
<td>12.4</td>
<td>17.5</td>
<td>8.9</td>
<td>13.1</td>
<td>15.5</td>
<td>12.0</td>
<td>11.5</td>
<td>16.2</td>
</tr>
<tr>
<td>Toothpaste</td>
<td>11.8</td>
<td>12.7</td>
<td>10.2</td>
<td>11.1</td>
<td>14.2</td>
<td>10.5</td>
<td>11.1</td>
<td>12.9</td>
</tr>
<tr>
<td>HD TV</td>
<td>18.1</td>
<td>10.5</td>
<td>11.5</td>
<td>11.1</td>
<td>14.2</td>
<td>11.1</td>
<td>11.1</td>
<td>15.1</td>
</tr>
<tr>
<td>Cereal</td>
<td>12.0</td>
<td>7.2</td>
<td>11.5</td>
<td>9.8</td>
<td>10.9</td>
<td>10.2</td>
<td>9.8</td>
<td>8.3</td>
</tr>
<tr>
<td>Shampoo</td>
<td>7.6</td>
<td>3.3</td>
<td>11.8</td>
<td>7.2</td>
<td>5.5</td>
<td>6.1</td>
<td>8.3</td>
<td>7.0</td>
</tr>
<tr>
<td>Watch</td>
<td>31.8</td>
<td>21.2</td>
<td>41.4</td>
<td>32.5</td>
<td>26.0</td>
<td>30.7</td>
<td>37.0</td>
<td>27.9</td>
</tr>
</tbody>
</table>
that acceptable levels of discounts will differ by gender, is not confirmed. While males did have an overall higher level of acceptable discount relative to females (51.9 percent versus 49.5 percent), neither the sex grouping factor nor the Sex by Product interaction were found to be statistically significant.

$H_5$, that younger respondents will differ from older respondents, was confirmed. Respondents in their 20s ($n = 239$) were compared to all older respondents ($n = 215$). Overall, younger respondents had a significantly higher maximum discount acceptance level relative to older respondents (53.4 percent versus 47.9 percent; $F = 8.01$, $p < 0.005$, df = 1). The Product by Age Group interaction was also statistically significant ($F = 3.75$, $p < 0.001$, df = 7).

$H_6$, that lower income respondents will have a higher acceptable maximum discount level relative to higher income respondents, was only partially confirmed. Overall, there were no statistically significant differences (51.9 percent lower income versus 49.5 percent higher income) found between the income groups. However, the Product by Income Group interaction was statistically significant ($F = 2.99$, $p < 0.004$, df = 7). The lower income group had a higher acceptable maximum discount for all product categories except tires compared with the higher income group.

$H_7$, that consumers would attribute risk factors to their selection of less-than-possible discount levels was confirmed.

Of the respondents, 88 percent indicated at least one reason for not accepting the lowest discount. There was a statistically significant difference (Cochran’s Q $p < 0.0001$) in the frequency of the reasons that were checked. Poor quality was the biggest concern, cited by 54 percent of the respondents. This was followed by concerns the goods were damaged (51 percent), outdated (46 percent), old (43 percent), knock-offs (33 percent), stolen goods (24 percent), and gray market (16 percent).

In order to verify that greater acceptable discount was associated with lower perception of risk, respondents were divided into two groups based on their overall mean acceptable discount level. The mean of all respondents (50.8 percent) was used as the cut-point for dividing the sample into low and high discount groups. A Chi-square test was computed for each of the reasons for not selecting the largest discount (poor quality, outdated model, damaged product, etc.) categorized by the discount group. For every reason except “no need to take any risk when the money isn’t that important,” there was a statistically significant ($p < 0.05$) difference between the low and high discount group in the frequency of the selection of the item. The respondents in the high discount group were less likely to check a risk item. The largest differences between the high and low discount groups were on poor quality and outdated model items.

**Discussion**

This study examined how consumers would respond if they could set the discount level they would receive for different product categories and distribution channels. The rejection of the deepest discount levels by 87.4 percent (for every category) is all the more surprising because the questionnaire clearly told subjects to assume each product was a well-known named brand which they preferred. Further, these were not discounts from some hypothetical list price; the respondents could see the price reductions they could receive at each level.

One surprising aspect of this study is that across all individual products and for both distribution channels, there was a drop in acceptance for discounts of 60 percent over 50 percent, and an even further drop for 70 percent discounts. Yet the numbers increased significantly for the 80 percent discount levels. This may represent the sorting of customers into “bargain shoppers” and others. Bargain shoppers are exceptions to prospect theory; those more attracted to achieving gains than to avoiding losses (Krishnamurthi et al., 1992; Thaler, 1985).

Additionally, this study found differences among the product categories. For example, tires had the lowest acceptable maximum discount. Consumers probably want to minimize the risk of poor quality when they purchase tires, since personal safety is at stake. An HD TV and cereal were the products with the next lowest acceptable maximum discounts. In the case of the HD TV there is the financial risk of an expensive product (list price $3,833 in the study) along with the risk of the distribution channel. In the case of cereal, a discount of greater than 49 percent might signal a potential risk of spoiled, old or non-palatable merchandise.

In contrast, a shirt has the highest acceptable maximum discount, there being little risk in the purchase of a shirt and consumers are accustomed to the easy return of clothing if they are not satisfied. Shampoo received the second highest maximum acceptable discount. It seems that respondents perceived a relatively low risk in purchasing and using shampoo. The price is relatively low and consumers may feel confident that poor quality shampoo has minimal risks.

The risk of the distribution channel also seems to have been evaluated. Purchasing products online presents the consumer with more unknowns relative to a local retailer (Riegelsberger and Sasse, 2001). Even though the web site was certified as safe (Samji and Gray, 2002) and “professional looking”,

**Figure 1** Overall product differences

<table>
<thead>
<tr>
<th>Product</th>
<th>Low Discount</th>
<th>Mean Acceptable Discount</th>
<th>Medium Discount</th>
<th>High Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoes</td>
<td>53.7%</td>
<td>58.6%</td>
<td>40.7%</td>
<td>47.6%</td>
</tr>
<tr>
<td>Tires</td>
<td>50.7%</td>
<td>48.6%</td>
<td>48.6%</td>
<td>54.2%</td>
</tr>
<tr>
<td>Shirt</td>
<td>40.7%</td>
<td>49.5%</td>
<td>49.5%</td>
<td>54.2%</td>
</tr>
<tr>
<td>Shorts</td>
<td>50.7%</td>
<td>48.6%</td>
<td>48.6%</td>
<td>54.2%</td>
</tr>
<tr>
<td>Cereal</td>
<td>53.4%</td>
<td>50.7%</td>
<td>50.7%</td>
<td>54.2%</td>
</tr>
<tr>
<td>Shampoo</td>
<td>60.7%</td>
<td>56.0%</td>
<td>56.0%</td>
<td>51.9%</td>
</tr>
<tr>
<td>Watch</td>
<td>56.0%</td>
<td>51.9%</td>
<td>51.9%</td>
<td>51.9%</td>
</tr>
</tbody>
</table>

**Figure 2** Channel differences

<table>
<thead>
<tr>
<th>Product</th>
<th>Online</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoes</td>
<td>51.4%</td>
<td>43.3%</td>
</tr>
<tr>
<td>Tires</td>
<td>50.0%</td>
<td>48.0%</td>
</tr>
<tr>
<td>Shorts</td>
<td>53.4%</td>
<td>50.7%</td>
</tr>
<tr>
<td>Cereal</td>
<td>53.4%</td>
<td>50.7%</td>
</tr>
<tr>
<td>Shampoo</td>
<td>56.0%</td>
<td>51.9%</td>
</tr>
<tr>
<td>Watch</td>
<td>51.9%</td>
<td>47.7%</td>
</tr>
</tbody>
</table>
shopping in virtual space brings up issues of payment security, timely delivery and returning the product if dissatisfied. Relative to local retailers, larger online discounts may signal an increased risk for the consumer and exacerbate these concerns.

We also found significant differences by age and by household income. Both consumers in their 20s and lower-income households were more likely to accept the highest discount levels. There was no significant difference by gender.

**Recommendations for future research**

We did not find opportunities to generalize the individual product results across categories of products. Further research, using a wider assortment of products with specific groupings by type of product may be able to uncover such opportunities for generalization. Future research should look at multiple products with potential safety concerns and several with spoilage concerns to see if these categories of products reliably score lower in acceptable-to-the-consumer discount levels, or if only some of them do.

It is also possible that consumer familiarity with online shopping may influence their quality perceptions for discounted online merchandise. Future research should control for this variable. Furthermore, it would be interesting to expand the research across additional channels, such as catalogs, direct-response television and single-product direct mail packages.

**Managerial implications**

The current study supports the conclusion that deep discounting in some product categories might negatively influence consumer perceptions. Although some consumers see no risk in very deep discounts, most consumers do perceive the risk. This risk might actually decrease the probability of purchasing a heavily discounted product. This risk is more likely when the product has safety, long-term reliability, or freshness concerns. Consequently, marketers should discount carefully as higher discounts not only affect the profit margins on products that are sold, but also might alienate many potential customers.

Further, it may be possible to break out those who find deep discount levels desirable and those for whom such levels create concern. If most of a company’s target consumers are not known to be “bargain shoppers,” deeper discounts may be counterproductive. Marketers should be especially careful with any discounts over the 50 percent level. On the other hand, if target customers contain a high degree of “bargain shoppers”, deep discount levels could and probably should be tested.

If deep discounts are part of a strategic marketing plan, the marketer should attempt to reduce the perceived risk of the discount by providing information on product quality. Several marketers, including a northeast discount furniture retailer, use this approach. While the furniture retailer makes the discounting policy prominent in advertisements, he/she allocates more of the television advertising time to informing consumers about various aspects of his products’ quality relative to the competition. Using this tactic, marketers can get the benefits of a high discount appeal to those who find it most compelling, while providing detailed, specific product quality claims to reassure those whose quality concerns were increased by the discount.

**References**


Appendix

Figure A1

Example of Discount Scale

<table>
<thead>
<tr>
<th>Athletic Shoes, a preferred brand such as Nike, Reebok, Adidas, etc.</th>
<th>List Price $90.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount</td>
<td>Price</td>
</tr>
<tr>
<td>10%</td>
<td>$81.00</td>
</tr>
<tr>
<td>20%</td>
<td>$72.00</td>
</tr>
<tr>
<td>30%</td>
<td>$63.00</td>
</tr>
<tr>
<td>40%</td>
<td>$54.00</td>
</tr>
<tr>
<td>50%</td>
<td>$45.00</td>
</tr>
<tr>
<td>60%</td>
<td>$36.00</td>
</tr>
<tr>
<td>70%</td>
<td>$27.00</td>
</tr>
<tr>
<td>80%</td>
<td>$18.00</td>
</tr>
</tbody>
</table>

List of Reasons for Not Accepting the Largest Discount

If you didn’t take the largest discount for one or more of the products, please let us know why. Did you assume? (check all that apply)

- [ ] poor quality of the model, variety or style
- [ ] outdated model or style
- [ ] damaged product or one with imperfections
- [ ] old, discontinued or expired product
- [ ] stolen goods
- [ ] products not authorized by the manufacturer for sale or service in the U.S. (gray market)
- [ ] knock-offs (products not made or authorized by the company designated on the product’s label)
- [ ] no need to take any risk when the money isn’t that important
- [ ] don’t want to encourage scam artists
- [ ] other reason(s)