Effects of Product and Product Company Information on Generation Zs’ Purchasing Preferences

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ABSTRACT
The generational cohort now commonly referred to as Generation Z numbers approximately 65 million in the United States. They share a number of traits with their millennial predecessors, such as the aspiration to purchase from, and work for socially conscious companies. They are also the first generation to grow up with instantaneous access to information via digital mobile technology and rely on digital platforms and social media for information. To better understand how this emerging consumer category processes product information and product company information regarding social behaviors, an experimental design and two methods of analysis (Choice-Based Conjoint and Latent Class Cluster) are employed. Results indicate that Gen Z consumers’ purchase preferences may be highly influenced by consumer product companies’ purported social and economic behavior, but other attributes remain highly relevant. Further, three distinctive need-based subsegments combining certain product attributes and company social behavior, of the Gen Z cohort may exist.

Keywords
Generation Z, Product Attributes, Company Behavior, Purchase Preference

INTRODUCTION
The newest consumer segment is a generational cohort now commonly referred to as Generation Z (Gen Z). Gen Zs are broadly defined as anyone born after 1994-1996 (Su et al., 2019; Stillman & Stillman, 2017; Dimock, 2019), and before 2012-2014, and number approximately 65 million in the United States. They are characterized as sharing a number of traits with their millennial predecessors, such as the aspiration to purchase from, and work for socially conscious companies (Lu, Bock, & Joseph, 2013; McGlone, Spavin, & McGlone, 2011). However, as a result of events they have observed and experienced (e.g., 911, school shootings, great recession), they are thought to be more cynical and distrusting of institutions, including consumer product companies (Debevec, et. al, 2013; Gutfreund, 2016). These behavioral and attitudinal characterizations (as distinguishing generational differentiators) are of interest to marketers, albeit largely subjective and challenging to assess, therefore generalize. A more definitive characterization, however, is that this is the first generation to grow up with instantaneous access to information via digital mobile technology (Gutfreund, 2016; Stillman & Stillman, 2017). Further, they rely on digital platforms and social media as a primary, if not exclusive, source of information (Dimock, 2019). As a result, the information they receive about consumer products and product companies is largely intermingled with all other informational categories. There is, in effect, a convergence of information on the digital/mobile systems and platforms they employ. This behavioral trait and how Gen Zs process the convergence of information is also compelling for marketers to better understand.

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Marketing researchers and practitioners are necessarily motivated to inquire, investigate, and assess the potential implications of a maturing cohort of new consumers that possess a different view of both companies and information. Specifically, assuming Gen Zs are more cynical and distrusting of companies in general, how is information about products (e.g., attributes) regarded in the context of information about the companies (e.g., behavior) that produced those products? The extent to which Gen Zs are “more cynical” than their millennial predecessors may not be determinable. We do know that Gen Zs differ behaviorally due to the influence of digital/mobile technology throughout their formative years (Dimock, 2019). At the same time, Gen Zs have observed the emergence of companies such as Toms Shoes or Warby Parker that embed philanthropic giving into their value proposition. They have also observed viral social media resulting from consumer product company behavior, e.g., Starbucks’ Philadelphia incident in 2018 or Facebook’s whistleblower crisis in 2021. As such, we aspire to gain a better sense of how this emerging consumer group acts on their perception of products (i.e., product attributes) and product companies (i.e., marketplace behavior).

To better understand Gen Zs’ purchase preferences, we employ choice based conjoint analysis with an experimental design along with two methods of analysis. The experimental design converges product information on a specific product along with information regarding the product company’s behavior in the marketplace, i.e., social behavior. Implementing choice-based conjoint (CBC) from Sawtooth Software (https://sawtoothsoftware.com/), we investigate the relative impact of product attributes (price, quality, country of origin, return policy, brand, and transactional technology use) along with the product company’s social behavior to analyze Gen Zs’ purchase preferences for consumer product decision-making. Then, employing Latent Gold Software we conduct latent class cluster analysis to explore the potential existence of need-based sub-segments that incorporate specific product attributes with company social behavior.

THEORETICAL BACKGROUND

GENERATIONAL COHORTS

Generational cohort theory provides that a generation of individuals that share the same social, environmental, political, and economic events during the formative stages of life will develop a similar set of beliefs, values, and behavior (Inglehart, 1997; Dinas and Stoker, 2014; Pew Research Center, 2015). Moss (2010) points out that events that unfolding during formative (rather than later) years are especially consequential. As such, individuals born during a particular time, and thus corresponding to the same cohort, will often share specific “inclinations and cognitive styles” that persist into later years. In marketing, the use of this theory has become an effective method of market segmentation and analyzing consumer behavior (Bolin, 2017; Inglehart, 1997; Pendergast, 2010). Moss (2010) alerts us to a challenge in studying differences between generations. Differences detected in cross-sectional studies (e.g., examining Generation X and Baby Boomers at the same time) could simply be ascribed to age. Conversely, studies that examine different generations at the same age (e.g., Generation X and Generation Y during their late teens) must be done longitudinally over time and may introduce other assessment challenges.

A “PHIGITAL” VIEW

Unlike previous cohorts, these consumers have been exposed to digital technology and mobile access from early childhood. The digitization and mobilization of products and services, physical and non-physical, immediate access to information, and the emergence of social media as a source of information and platform for personal expression, is integral to Gen Z thinking and behaviors. Since
their early teens, Gen Zs have connected to the web through mobile devices, WiFi and high-bandwidth cellular service. This merging of the digital and physical world is also thought to influence Gen Zs' perceptions of, among other things, information. This phenomenon has been referred to as “phigital” (Edmond & Driskill, 2019; Stillman & Stillman, 2017). The “phigital” lens through which Gen Zs process information could have profound strategic and tactical implications for consumer product companies. One implication is that value propositions have to be of a breadth sufficient to attract/satisfy the expectations of a “phigital” view. It also implies that product information (i.e., value propositions) are inherently judged by Gen Zs in the context of product and non-product information available to them from a multitude of sources. Companies must proactively manage online information about their products and behavior, regardless of its origin.

SUBJECTIVE KNOWLEDGE AND DIGITAL INFORMATION

Product and non-product information that is available online (or from other sources), has been shown to influence target consumers’ perceptions of product information such as product features and price (Branco, Sun, & Villas-Boas, 2016; Brown & Dacin, 1997; Risius & Beck, 2015). Brucks (1985, 1986) describes three distinct categories of consumer knowledge: subjective knowledge, what the consumer thinks he or she knows; objective knowledge, an actual knowledge construct as measured by some sort of test; and prior experience with the product category. There have been numerous studies that explore the effects of knowledge typology on consumer decision-making. Among them, Moorman et al. (2004) determined that subjective knowledge can influence where consumers “locate” themselves for information search, and that they “proximate to stimuli consistent with their subjective knowledge.” Given that Gen Zs’ primary source of information is via digital technology and media sights, social and otherwise, it is reasonable to expect that Gen Z’s subjective knowledge about a product or company may highly influence where they locate themselves in the digital space in search of information. This information could be positive or negative, accurate or inaccurate, and originate from the product company (e.g., company website or Facebook page) or external sources (e.g., Twitter or Reddit).

EFFECTS OF COMPANY BEHAVIOR ON CONSUMER PURCHASE PREFERENCE

Substantial research suggests that consumption can be the result of a consumers’ decision-making process that considers both individual needs, and the social impact of the firms fulfilling that consumption (Anderson, Dahlquist, & Garver, 2018; Bhattacharya & Sen, 2004; Luchs et al., 2010; Vermeir & Verbeke, 2006). Further, given a choice of product companies, behavior-driven consumers would seek at least a neutral social impact objective for the products they consume, if not a positive social impact (Gordon, Carrigan, & Hastings, 2011). The use of social media by consumer brands, in an effort to create subjective knowledge in their target markets, is now indeed commonplace (Coulter et. al, 2012; Risius & Beck, 2015), increasing the potential that Gen Zs form a positive or negative opinion of a product company’s behavior. Further, if a product company is not active on social media it may be perceived by Gen Zs as a non-viable company from which to purchase products (Risius & Beck, 2015; Stillman & Stillman, 2017). For this study, we characterize a firm’s “social impact” in terms of their purported behavior in the marketplace. In summary, Gen Zs are regularly subjected to information, including product and product company behavior, via digital sources that influences their subjective knowledge regarding those products and companies. In turn, their assessment of the alignment between that information and their individual needs may be critical in better understanding their purchasing preferences and decision-making.
RESEARCH METHODOLOGY

Choice-based conjoint analysis (CBC) is an effective tool for identifying drivers of purchase preference (Orme, 2014), and is the research method employed in this study. To determine the most appropriate categories (product attributes and firm behavior) and levels of performance along with properly wording these concepts for our Gen Z sample, discussions were held with 20 Gen Z undergraduate business students, 50% identified as female and 50% as male. Those discussions revealed the following. First, product company social behavior is not simply a question of “good, neutral, or bad” behavior. There were, instead four typologies of company behavior that resonated with Gen Z respondents: environmental behavior (i.e., the use of recycled materials in the product and packaging, and commitment to the environment), philanthropic behavior (i.e., donations to charities and nonprofits), ethical behavior (i.e., commitment to ethical business practices), and economic behavior (i.e., fair labor practices and worker treatment). Accordingly, we used a mix of these behavioral categories in our CBC questions and provided short descriptions (i.e., established subjective knowledge) of positive, neutral, or negative company social behavior. Second, when asked to list important product attributes of a basic white dress shirt, a number of categories emerged: price (§25, §30, or §35), country of origin (Mexico, China, or USA), product quality (low, medium, or high), and return policy (strict, typical, lenient). In addition, the respondents tended to tie a product company’s brand image and use of technology in transactions to product attributes. As a result, brand image and transaction typology were characterized respectively as “cheap, functional, or cool” and technology use of “online only, brick and mortar only, or both.” Table 1 contains these categories (product attributes and firm behavior) and their corresponding levels of performance.
Table 1. Category Importance & Preference Levels

<table>
<thead>
<tr>
<th>Categories</th>
<th>Importance</th>
<th>Levels of Performance</th>
<th>Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior</td>
<td>29.25</td>
<td>Positive</td>
<td>96.33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neutral</td>
<td>-8.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative</td>
<td>-87.65</td>
</tr>
<tr>
<td>Quality</td>
<td>20.90</td>
<td>High Quality</td>
<td>71.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium Quality</td>
<td>6.33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low Quality</td>
<td>-77.58</td>
</tr>
<tr>
<td>Price</td>
<td>15.23</td>
<td>25$</td>
<td>42.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30$</td>
<td>3.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35$</td>
<td>-45.73</td>
</tr>
<tr>
<td>Country</td>
<td>14.15</td>
<td>Made in USA</td>
<td>51.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Made in China</td>
<td>-21.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Made in Mexico</td>
<td>-30.10</td>
</tr>
<tr>
<td>Brand Image</td>
<td>8.03</td>
<td>Cool</td>
<td>20.36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Functional</td>
<td>9.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cheap</td>
<td>-29.61</td>
</tr>
<tr>
<td>Technology</td>
<td>6.77</td>
<td>Combination</td>
<td>13.07</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brick &amp; Mortar Only</td>
<td>-2.16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Online Only</td>
<td>-10.91</td>
</tr>
<tr>
<td>Return Policy</td>
<td>5.67</td>
<td>Lenient</td>
<td>6.90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Typical</td>
<td>4.85</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strict</td>
<td>-11.75</td>
</tr>
</tbody>
</table>

The categories and their corresponding levels were then entered into an experimental design, which guided the creation of the CBC survey questions. An example of the choice screens presented to respondents is provided in Figure 1 and followed by all behavioral descriptions. The survey also included demographic questions (i.e., age, gender).

The research was conducted at a Midwestern United States public university, and potential respondents were invited by email to participate in the study. Respondents were between ages 20 to 22 years in 2017, full-time business school undergraduate students, 51% of the identified as female, and 49% identified as male. Our initial sample size was 233 respondents. A rigorous data cleaning process was conducted, and 22 respondents were removed because of low response consistency scores. The root likelihood measure (RLH) from CBC analysis was implemented to assess internal consistency of the choices for each respondent. In addition to examining other quality measures (e.g., time to answer the survey, question consistency), those respondents who fell below a 0.40 on both RLH were removed from the data, resulting in a sample size of 208 (Orme, 2014).
**BEHAVIORAL DESCRIPTIONS**

**POSITIVE DESCRIPTIONS**

Environmental: Uses recycled materials in clothing items and packaging as a commitment to the environment
Philanthropic: Donates a large percentage of its profits to several reputable charities and nonprofit groups
Ethical: Known for making a continual commitment to ethical business practices
Economic: Only uses suppliers that continually enforce fair labor practices and are known for exceptional treatment of workers

**NEUTRAL DESCRIPTIONS**

No description given.

**NEGATIVE DESCRIPTIONS**

Environmental: Uses wasteful amounts of materials in clothing and packaging, having an adverse effect on the environment
Philanthropic: Donates absolutely no money to any charity or nonprofit groups
Ethical: Known for making ethically questionable business practices
Economic: Known for using suppliers that don’t comply with fair labor practices and treat workers unfairly
RESULTS

CBC ANALYSIS

The CBC data was analyzed using Hierarchical Bayesian software and the overall results for the entire sample are provided in Table 1. For categorical results, including both product attributes and firm behavior, a total of 100 points are shared among the categories, with a higher number of points signifying higher importance on influencing the choice made by the respondents. To interpret preference scores (within categories) for different levels (e.g., high, medium, and low quality), the scores are zero-based, where a score of “0” represents average preference, negative scores represent below average preference, and positive scores represent above average preference.

The results indicate that firm behavior (importance = 29.25) has the greatest influence on purchase preference, with this importance level being significantly more important than any other category. Within the firm behavior category, positive behavior had a preference score of 96.33 versus a negative behavior score of -87.65, and this positive behavior is significantly more preferred than the negative behavior. Neutral behavior, however, also had a statistically significant negative score of -8.68, and this score is significantly different than zero (p < .05). Product quality (importance = 20.90), price (importance = 15.23), and country of origin (importance = 14.15) were the next most important attributes, with high quality (preference = 71.25), the lowest price of $25 (preference = 42.23), and Made in USA (preference = 51.30), being the most preferred levels of performance. Brand image and use of technology (importance = 8.03 and 6.77, respectively) were higher than return policy (importance = 5.67), however significantly below all other product attributes combined (p < .05). A Cool brand image (preference = 20.36), an online and brick & mortar technology use (preference = 13.07), and a lenient return policy (preference = 6.90) were the most preferred levels of performance for their respective attributes.

BIC-BASED SEGMENTATION ANALYSIS

We then conducted latent class cluster analysis on the category importance scores, implementing the Latent Gold software package (version 5.1). To determine the appropriate number of segments we relied upon the Bayesian Information Criterion (BIC) values for the different statistical models, as well as accounted for parsimony and managerial relevance of the resulting segmentation profiles (Garver, Williams, and Taylor 2008). Five different statistical segmentation models were assessed (1-Segment BIC:9712, 2-Segment BIC:9516, 3-Segment BIC:9484, 4-Segment BIC:9490, and 5-Segment BIC:9519). The 3-segment model had the lowest BIC value, suggesting the best fit with the data and the most appropriate number of segments for this sample.
Table 2. Need-Based Segments

<table>
<thead>
<tr>
<th>Segment</th>
<th>Quality</th>
<th>Firm Behavior</th>
<th>Country of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior</td>
<td>22</td>
<td>42</td>
<td>15</td>
</tr>
<tr>
<td>Quality</td>
<td>23</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>10</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>Price</td>
<td>20</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Image</td>
<td>11</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Technology Use</td>
<td>7</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Return Policy</td>
<td>6</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Size of Segment</td>
<td>46%</td>
<td>40%</td>
<td>14%</td>
</tr>
</tbody>
</table>

The latent class clustering technique identified three meaningful and unique need-based segments (see Table 2). Each segment is named after the primary category that is most important to that segment and is substantial in size. The “quality segment” (46% of the population) is the largest need-based segment, followed by the “firm behavior” segment (40% of the population), and the “country of origin” segment (14% of the population). The “quality segment” is mostly driven by product quality (importance = 23), followed by firm behavior (importance = 22) and then price (importance = 20). This segment appears to be the most utilitarian in nature, being driven by quality and price, in combination with firm behavior. The “firm behavior segment” is a unique segment, with almost half of its importance placed on firm behavior (importance = 42), more than twice as important as quality (importance = 16). The “country of origin” segment is the smallest segment, representing 14% of the sample. This segment is the most balanced of all segments, with all categories possessing double-digit importance scores.

DISCUSSION

Generational cohort theory asserts that distinguishable cohorts exist, and that each cohort’s members share specific “inclinations and cognitive styles.” In the case of Gen Zs, the characterization that they are sensitive to the behavior of firms, due to a degree of institutional cynicism that they possess in common, appears to be confirmed by this study. The level and triggers of sensitivity relative to their millennial predecessors may or may not be different. However, the determination that they are sensitive informs further research and marketing strategy. A second, and perhaps more compelling thesis stemming from cohort theory is that Gen Zs have a unique view of the world due to the convergence of information (e.g., marketing, news, history, physical, health, and entertainment) on the same mobile device. One could argue that this cohort is de facto unique, because of their lifelong exposure to digital mobile technology, which “must” have a lasting impact on their perspective. The findings of this research would seem to confirm that subjective information (obtained digitally) regarding a product’s attributes and its producing company’s behavior, impacts the purchase preference tendencies of a sampling of early Gen Z consumers. While generational cohort theory predicts shared inclinations and cognitive styles, it does not assert homogeneity within the cohort. The identification of three distinguishable need-based sub-segments within the sampling would also appear consistent with cohort theory in terms of homogeneity. They also suggest that generational cohort theory may be a useful “starting point” for market segmentation efforts in marketing.

The existence of these sub-segments, structured on the basis of a convergence of subjective product and product company information may provide actionable insights for practitioners and
future research. The CBC analysis results first highlight the potential impact of information regarding a company’s social behavior on Gen Zs’ preferences for that company’s product. This appears consistent with previous works assessing the effects of company behavior on millennials’ purchase preferences (e.g., Anderson, Dahlquist, & Garver, 2018; Debevec et. al., 2013). Specifically, it suggests that companies need to be proactive in managing and responding to behavior-related information in the marketplace, both positive and negative. Also, they should be cognizant that Gen Z consumers may form a negative perception of companies that do not generate positive information about their behavior. Company behavioral information was intentionally provided first and prominently in the experimental design. This approach was adopted in an attempt to capture the prominence of information regarding companies’ behaviors, particularly “bad” behaviors, on social media platforms. As such, one might reasonably anticipate the outcome that behavior is categorically first in importance scores. However, it is noteworthy that any two-category combination of quality, price, or country of origin exceeds the importance of behavior. The relative importance scores of these four categories suggests that Gen Zs also place a high level of importance on traditional product attributes. Further, while behavior is important, it should not be considered a singular driver in their purchase preference decision-making. It is also noteworthy that the product company’s transactional technology use (internet, brick and mortar, or both) did not emerge more prominently in importance (score 6.77). Further, within the category, “both” was perceived positively, whereas internet only or brick and mortar only were perceived negatively. This result would seem to support the thesis that Gen Zs do in fact perceive their world through a more “phigital” lens.

Latent class cluster analysis suggests there may be several need-based segments within this cohort of consumers: one focused on quality, one on company behavior, and one on country of origin. These segments are not uniform, however, in terms of the importance of each of its components. The quality segment places quality slightly ahead of behavior and price (scores of 23, 22, and 20 respectively). Alternatively, the behavior segment appears to value behavior far more than quality and country of origin (scores of 42, 16, and 13 respectively). The country of origin segment does not distinguish price as important but seem to align country of origin with quality and firm behavior. As such, when targeting Gen Zs, product companies may consider multiple value propositions; one focusing on product quality/company behavior, one focused solely on company behavior, and one focused on country of origin and quality. More broadly an awareness of discrete need-based segments in this cohort could be beneficial in the creation/delivery of value propositions and brand positioning messages toward Gen Z consumers. Further the results suggest the need for product companies to go beyond classic segmentation when targeting the Gen Z cohort. They must seek more precise need-based segments and understand the interplay between the product attributes that are most important to each sub-segment. From a market research perspective, the study may illuminate the benefits to marketing managers and strategists of using both CBC and latent class cluster analyses in their segmenting, targeting, and positioning processes. The combination may bring important insights regarding potential target markets and positioning strategies.

LIMITATIONS AND FUTURE RESEARCH

This research is not without its limitations. First, “social desirability bias” can be difficult to identify among respondent groups such as Gen Zs; respondents may have selected options supporting positive firm behavior simply because they believe it is the “right” thing to do. In addition, the focus of the study is Gen Zs, yet the sample is a convenience sample of undergraduate higher education students in the Midwestern United States. Clearly, additional testing of more diverse Gen Zs is in order. While providing insights, the experimental design should be modified to determine the effect of placement and prominence of company behavior information relative to product information. In addition, the
subject of the experimental design was a white dress shirt. The product type, clothing versus personal health products for example, should be studied to better understand the generalizability of the results. Finally, the source of information in this design was not specified. The respondent was simply provided the information as fact. While this approach is consistent with the studies regarding subjective knowledge, it ignores the potential importance of the source of information, particularly company behavioral information. If “trust” is in fact an important factor in Gen Z’s purchase preference assessment, then further studies could enhance generalizability by investigating the effects of information source on Gen Z responses.
REFERENCES


