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Clustering Attitudes and Behaviors of High/ Low Involvement Grocery Shopper

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Abstract

The purpose of this exploratory and quantitative study was to examine the attitudes and behaviors of 14,807 grocery shoppers. These respondents across the US were asked to answer attitudinal, behavioral, and demographic related questions. Shoppers were profiled by analyzing their responses to 16 relevant attitudinal and behavioral questions. A cluster analysis was performed followed by a discriminant analysis to determine attitudinal and behavioral variables explaining cluster membership. A cross-tabulation analysis assessed demographic variables that correlated with cluster membership. Two clusters were identified: high and low involvement grocery shoppers. In an event that has long been perceived as low involvement, a large percentage (53%) can be categorized as high involvement grocery shoppers. These shoppers tend to be younger. They were more likely to enjoy the hunt of finding products/deals, seek the advice of others and perceive that the products they buy reflect upon them. Grocery stores have a significant opportunity to target this high involvement shopper. Grocery stores will need to create an integrative, engaging online and in-store experience to attract high involvement shoppers and ultimately increase store loyalty. The results of this research has significant communication, branding and digital marketing implications.

Keywords

Involvement; Grocery Shopping; Cluster Analysis; Retailing; Digital Marketing

Introduction

Over the past 30 years, product involvement has played an increasing role in understanding consumer buying behavior and has been a key construct in market segmentation. In the field of consumer behavior, the involvement construct was first discussed in 1947. It has since been extensively examined as a construct as well as applied to specific industries and products (Bruwer, Burrows, Chaumont, Li, & Saliba, 2014; Montgomery & Bruwer, 2013). It has been argued that consumers in high, compared to low, involvement situations are more likely to process more information, to consider more alternatives prior to purchase, to generate higher levels of brand awareness and brand loyalty, and to spread positive word-of-mouth (Alexander & Nicholls, 2006; Yeung, Ging, & Ennew, 2002). Thus, involvement is a key construct that influences a company's sustainable profitability (Alexander & Nicholls, 2006; Yeung et al., 2002).

There is an abundance of research examining characteristics important to the grocery store shopper ranging from physical characteristics of the location, merchandise and core store processes (i.e. check-out). When it comes to involvement, past research has come to agree that grocery shopping is a low involvement context (Hamlin, 2010; McWilliam, 1992) and as such shoppers spend less time searching for information/alternative brands and brand substitution is relatively easy in this context (Beharrell & Denison, 1995). Few works noted that, although grocery shopping in general is low involvement, involvement could be cue-induced and influenced by situational factors (Beharrell & Denison, 1995; Hamlin, 2010). The majority of the analysis, thus far, when it comes to grocery shopping was done at the product and brand level rather than the shopping activity overall.

Contrary to the majority of previous research, that argues that grocery shopping is a low involvement context, we argue that for some shoppers, grocery shopping could indeed be a high involvement activity. We argue that even though one single grocery product (e.g. shampoo or toothpaste) could be considered low involvement, a bundle of products during a grocery store trip can amount to a high involvement economic purchase occasion. Thus, it is important to study the grocery shopping activity as a whole experience. We further argue that certain individuals, compared to others, find the grocery store trip in itself to be pleasurable and exciting. Thus, we propose, that among shoppers, there is a segment that is highly involved in the grocery shopping activity itself.

In this paper, we conduct a full empirical validation of grocery shopper high and low involvement segments and examine critical differences between segments including key motivators, and differentiating attitudes and shopping behaviors. We shed more light on two types of shoppers: high and low involvement shoppers as an important means of segmentation in a setting that has long been viewed as low involvement – grocery store. We start by looking at current literature on involvement, the various drivers of grocery shopping, and how shopper demographics impact the importance of these drivers. The methodology used and results of the study are then discussed. Finally, the authors discuss the findings and provide recommendations and implications of the research project.

Involvement literature

When talking about involvement, previous research has mainly focused on variation of consumer involvement level based on product type and personal relevance of the product category (Montandon, Ogonowski, & Botha, 2017; Schiffman & Kanuk, 2010). Personal involvement has been conceptualized as the degree to which a product or service is believed to be personally relevant to

shoppers in terms of helping them achieve their personal goals and values. For example, shoppers that are health or green conscious favored organic food or eco-friendly products (Kim, 2018; Tung, Koenig, & Chen, 2017). A product's personal relevance is characterized by the relationship between a shopper's values, needs and goals and the buyer's product knowledge. Beyond product related involvement, involvement could be at the brand level (Kim & Sung, 2009; Y. Odin, Odin, & Valette-Florence, 2001). Involvement at the brand level implies that certain shoppers could be involved at the brand-decision level even without being involved with the product category-decision level.

Consumer involvement and the perceived consequences of a product are impacted and driven by at least two things: Situational sources and intrinsic (or enduring) sources (Celsi & Olson, 1988; Knox, Walker, & Marshall, 1994). Situational sources involve the social and physical aspects of the shopping environment. For example, on one hand, situational influences might be impacted by sales promotions including coupons, rebates and price reductions that trigger shopper's important personal goals to save money or enhance the value of the product being considered (Celsi & Olson, 1988). On the other hand, a product recall can illicit and increase levels of situational involvement driving the shopper to increase their reliance on extensive product information search as well as word of mouth activity (Knox et al., 1994). Thus, situational involvement is dynamic and not very stable. Intrinsic sources, however, are less dynamic and are more stable and enduring. Typically, they are the result of past buying and consumption experiences (Celsi & Olson, 1988). They represent the shopper's interest in the product on an ongoing basis. As such, they often transcend situational involvement (Knox et al., 1994).

Involvement and grocery shopping activity

In the grocery shopping realm, the majority of research treated it as a low involvement activity (Hamlin, 2010; McWilliam, 1992). Shoppers tend to spend less time searching for and deliberating information, and the decision to switch across brands is relatively easy (Beharrell & Denison, 1995). Beharrell and Denison (1995) and Hamlin (2010) argued, however, that involvement could be cue induced for certain grocery products based on situational factors such as the unavailability of a brand at the purchase level or coupons.

Beyond the situational influences discussed, we argue that grocery shopping as an activity could be involving for some group of shoppers. Slama & Taschian (1985) were among the first to propose that involvement could beat the purchase activity level and that certain shoppers, compared to others, are intrinsically more involved in the purchase activity itself. These shoppers are more likely to extend efforts in the shopping process and to be highly susceptible to marketing activities (Gendel-Guterman & Levy, 2013; K.N. Kwon, Lee, & Kwon, 2008). In the grocery context, research mainly looked at the product/brand level rather than the activity level. However, the success of grocery stores like Wholefoods and Trader Joe's that strived to create different, more engaging store atmospheres (Rintamäki, Kuusela, & Mitronen, 2007) points to the possibility that grocery shopping could be a highly involving activity in and of itself for certain shoppers.

In addition, as the retailing landscape is changing (Kahn, Inman, & Verhoef, 2018), retailers are looking for different ways to incorporate marketing strategies to remain relevant in today's market. This is no different in a grocery shopping context, where online grocers, technology enhanced grocers (such as Amazon Go) and the acquisition of Wholefoods by Amazon started raising doubts among

grocery retailers and started a movement to revise current business models (Sloot, 2018). Beyond grocery stores changing their marketing strategies to remain relevant, shoppers have been equally exhibiting variations in behaviors. Lee et al. (2018) noted that the purchasing process is no longer a linear process where shoppers are pushed through the purchasing funnel. It has become non-linear due to the presence of omnichannels (shopping at multiple retail channels). Grewal, Roggeveen, and Nordfält (2016) further noted that shoppers' goal behind the purchase process coupled with some personal attributes (e.g. identity) could influence their purchase behavior.

We thus argue for an intrinsic type of involvement that is dependent on shoppers. We argue that the bundle of products during a grocery store trip can amount to a high involvement economic purchase occasion and that certain shoppers, compared to others, find the grocery store trip in itself to be pleasurable and exciting. Thus, we propose that different segments of shoppers emerge in terms of their level of involvement in grocery shopping activity overall.

Involvement and shoppers' attitudes/behaviors

Previous research noted that shoppers with different levels of involvement tend to exhibit different types of attitudes and/or behaviors in terms of their purchasing process and thus, attitudes and/or behaviors are common constructs used to measure involvement (Gendel-Guterman & Levy, 2013; Hamlin, 2010; Kim & Sung, 2009; Montandon et al., 2017; Schiffman & Kanuk, 2010). Furthermore, segmentation and clustering shoppers into groups has been widely done using factors that link to a set of multiple attitudes (Hamlin, 2010; Honkanen & Frewer, 2009). The literature pertaining to shopping behavior, and grocery shopping in particular, points out to the importance of a set of attitudinal and behavioral items in assessing the involvement level of shoppers.

We build upon a conceptual framework put forth by Gendel-Guterman and Levy (2013) to reflect the importance of key attitudinal and behavioral items. The framework suggests three critical elements within the construct of involvement that relates to the perceived consequences of a product: economic, functional and symbolic involvement. We expand this framework and adapt it to incorporate relevant attitudinal/behavioral characteristics critical to grocery shopping as an overall activity such as the importance of loyalty when shopping, enjoyment factors such as the thrill of the hunt to find a bargain, and items addressing convenience issues when shopping.

First, *Economic involvement* accounts for the financial risk in grocery store purchase process (Park & Mittal, 1985). It relates to both pricing and value considerations. As such, shoppers with higher economic involvement tend to search for the lowest prices and/or the best value (Gendel-Guterman & Levy, 2013). They spend more time and effort on information search and are more likely to make judgments based on pricing. Lockshin, Spawton, and Macintosh (1997) noted that judgment based on pricing takes different forms based on the type of shoppers. High-income shoppers tend to purchase higher priced items as they indicate high quality, while uninvolved, budget constrained, shoppers tend to purchase low priced items. A key differentiator for high economic involvement shoppers is the amount of time invested in searching for price information. These shoppers also expend more effort examining and evaluating marketers' promotional messages (Gendel-Guterman & Levy, 2013). For these shoppers, store brands are perceived as a source of economic savings (Ailawadi, Neslin, & Gedenk, 2001). Thus, we argue that when economic involvement is present, shoppers are more likely to spend time evaluating alternatives and

options to find the best deals.

Second, *Functional involvement* involves the consequences of a mistaken purchase process (Park & Mittal, 1985). Functional involvement takes many forms: it includes consideration of perceived health and safety risks (Dholakia, 2001) and perceived product quality differences among alternative products being evaluated (Miquel et al., 2002). Gendel-Guterman and Levy (2013) argues that functional involvement is very cognitive. As such, we expand upon this and argue that functional involvement when looking at the shopping activity overall should also incorporate perceived differences in store attributes, store quality, aswell as the convenience of the shopping experience.

Shopper's attitudes toward the store's merchandise quality significantly influence the willingness to visit that store (Pan & Zinkhan, 2006). Good merchandise quality and assortment are more likely to drive one-stop shopping behavior from shoppers (Kaynak, Kara, Kucukemiroglu, & Abraha, 2005). Product areas and store cleanliness; price and product variety; fast check-out and service quality and the location's convenience are all key important store attributes that are especially important for high involvement shoppers (Brown, 2004; Morschett, Swoboda, & Foscht, 2005; Reutterer & Teller, 2009). Among other things, the degree to which shoppers find employees to be friendly and communicative often positively influences store patronage and experience. In addition, during the check-out process, the ability to save time during the store purchasing and payment process is a positive driver of retailer selection.

Furthermore, the higher the functional involvement, the more likely for shoppers to search for information about product quality. Shoppers can seek input from others, to ensure product quality. Tkaczyk and Krzyzanowska (2016) found that shoppers who are highly involved in the purchasing process are more likely to look for product reviews and recommendations. Furthermore, shoppers can seek online information about product quality. Holmes, Byrne, and Rowley (2014), found that with higher product and shopping involvement situations, mobile phone usage played a larger role in the decision making process than low involvement situations.

Convenience plays an important role when it comes to functional involvement. Ease of access to information, in terms of good store communication activities are more likely to drive one-stop shopping behavior from shoppers (Kaynak et al., 2005). In addition, retailers transparent in their unit pricing strategy aid shoppers in the shopping process and simplify shopping under timeconstrains (Yao & Oppewal, 2016). The less time shoppers had led to more one-stop shopping experiences (Lemon & Verhoef, 2016). Location's convenience equally influences one-stop shopping. If the store is close and the shopper has little time, they will visit the grocery store rather than transact online (Chocarro, Cortiñas, & Villanueva, 2013). Nonetheless, multi-channel shopping is becoming more common and is influenced by shoppers' technology attitude, their enjoyment of the shopping activity, and their experience (Kahn et al., 2018; Kumar, Bezawada, & Trivedi, 2018). Shoppers that engage in multi-channel shopping tended to enjoy the shopping process, to be frequent shoppers, and to spend more per purchase occasion.

Finally, *Symbolic Involvement* affects the social issues in a shopper's life and involves the perceived personal importance to an individual (Zaichkowsky, 1994). Symbolic involvement involves the 'conspicuous' nature of product purchases. Often, higher symbolic involvement purchasers perceive the product that is being purchased as a reflection of themselves. Shoppers with strong self-identity are more likely to be more involved in the purchase decision and purchase products that reinforces their self-identity (Kim, 2018; Tung et al., 2017). We further argue that due to the emotional and experiential aspect linked

to symbolic involvement, product and store branding as well as store experience overall are important differentiators.

Brand name plays a critical role when it comes to symbolic involvement. Brand name is an important determinant for some set of shoppers but not for others (Kim & Sung, 2009). Gendal-Guterman and Levy (2013) noted that brand name shoppers usually have little knowledge and have no interest in store brands. Brand loyalty could equally be at the store level and retailer loyalty programs is a strategy devised to increase retailer loyalty. Volle (2001) found that short-term promotional incentives have weak short-term effect on store choice as it is usually driven by store loyalty. Thus, loyalty programs have a much greater impact in the long run than coupons. Previous research noted that the most effective type of loyalty rewards depends on shoppers. For shoppers with low involvement, more immediate and tangible rewards like discounts were impactful (Meyer-Waarden, 2015). Whereas shoppers with high involvement, direct shopping rewards were more preferred, such as purchase points (Yi & Jeon, 2003).

The rush of getting a deal is a significant motivator when it comes to symbolic involvement. A good number of shoppers are drawn by the shopping experience and by the enjoyment of bargain hunting in particular (A.D. Cox, Cox, & Anderson, 2005; Xu-Priour & Cliquet, 2013). Furthermore, the concept of a "recreational shopper" has been emerging (Hourigan & Bougoure, 2012). These shoppers tend to spend more time and money shopping as well as engage in multi-channel shopping. Atalay and Meloy (2011) described the concept of 'Retail therapy.' It is the idea of cheering oneself up through the purchase and consumption of treats. However, it also provides evidence that the consumption of self-treats can be strategically motivated. Those individuals who do indulge can also exercise restraint if the goal of restraint also leads to improved mood. Finally, retail therapy has lasting positive impacts on mood.

By expanding on Gendel-Guterman and Levy (2013) framework, we provide important insights on attitudinal and behavioral differences that highly involved shoppers might exhibit. Through this exploratory research, we argue that a high involvement segment of shoppers will emerge in terms of their attitudes and behaviors towards grocery shopping. These shoppers will exhibit high economic, functional, and symbolic involvement.

Involvement and shopper characteristics

While many studies have documented the importance of involvement, store characteristics, and shoppers' subsequent behavior, there has not been a significant amount of research that has focused on the impact of different shopper demographics. Mortimer and Clarke (2011), in a study conducted in Brisbane, Australia, found that the most consistent variable that exhibited shopping differences was gender. Characteristics such as cleanliness, product quality and convenience were all significantly more important to female, compared to male, grocery shoppers. While less predictive variable, higher educated individuals placed a greater emphasis on cleanliness of the physical characteristics of the grocery store. Interestingly, their study found that the age and the income level of the respondent had no significant impact. In a study in the U.S., Carpenter and Moore (2006) identified the significant impact of income and gender on the importance of grocery store attributes. For example, high-income shoppers preferred specialty grocery stores, whereas low-income shoppers preferred supercenter stores with lower prices. In this study, age had no significant impact on grocery store attributes. The moderate differences in findings between Mortimer and Clarke (2011), Carpenter and Moore (2006) might be due to varying shopper characteristics from different regions of the world.

In terms of involvement, previous research noted that in a low involvement context, such as that of grocery shopping, shoppers are more likely to be low-income shoppers who seek the best price value (Lockshin et al., 1997). We argue, however, that pricing consideration or what is termed economic involvement, while still important, does not reflect all relevant aspects of involvement in grocery shopping. As mentioned, involvement does not only need be economic, but could be functional as well as symbolic. As such, we argue that it is not necessarily true that low-income shoppers are more involved in the shopping process.

In sum, we argue that for an activity that has been long perceived to be low-involvement – grocery shopping, there could be a highly involved segment in the grocery shopping experience as a whole. We argue that this segment will exhibit high economic, functional, and symbolic involvement. We also propose that this high involvement segment loves the thrill of the hunt, not only for the best deal, but also for discovering new products.

Method

Data collection and sample

Secondary data from a survey entitled “Shopper STAT questionnaire” were provided by Alter Agents Inc., a US based market research company. The survey was conducted online using a purchased panel sample. Respondents were part of a third party online sample provider. They opted in to take surveys for small incentives. To qualify for the study, respondents were screened by asking a series of blinded questions. The qualifying criteria were to be a US Resident, aged 18 and above, primary or shared decision-maker in grocery purchases, and purchased at least one of eight categories (beverages, breakfast food, confection, coffee/tea, snacks, frozen food, cleaning supplies, and pet food) within the previous 24 hours of questionnaire administration. Around 1000 interviews were conducted per week and the online survey took an average of 10 minutes to complete. By the time data was provided in 2017, the questionnaire was administered to 14,807 respondents across the US.

73.3% of the respondents were female, this parallels the actual gender composition of grocery shoppers. Furthermore, respondents’ average age was 43 years old with age ranging from 18 to 70 years old. Around 60% of respondents were married or living with a partner and 40% were either single or divorced/widowed/separated. The majority of respondents were Caucasians (around 75%) and around 56% of respondents had some kind of college degree. Around 53% of respondents had some form of employment and 55% had a yearly income level of \$100,000 and more. Detailed demographic information are provided in [Table 1](#).

Table 1. Demographics of Respondents.

N		14807			
% Female		73.30%			
Age (years)		43 (13)			
Number of kids		0.97 (1.21)			
Education	Some high school	3.25%	Marital Status	Single	23.51%
	High School	41.05%		Living with partner	12.69%
	Associates Degree	23.14%		Married	47.54%
	Bachelor's Degree	19.46%		Widowed/Divorced / Separated	16.26%
	Some post-graduate work	5.88%			
	Master's or Doctorate Degree	7.21%			
Employment	Student	3.48%	Household Income	Under \$20,000	3.93%
	Homemaker	18.42%		\$20,000 – \$29,999	2.79%
	Retired	13.98%		\$30,000 – \$39,999	2.55%
	Self-Employed	7.49%		\$40,000 – \$49,999	2.06%
	Employed Part-Time	10.62%		\$50,000 – \$74,999	22.38%
	Employed Full-Time	34.41%		\$75,000 – \$99,999	11.33%
	Unemployed	11.60%		\$100,000 – \$149,999	52.33%
				\$150,000 – \$249,999	1.90%
				\$250,000 – \$499,999	0.57%
Ethnicity	Caucasian	75.62%		\$500,000 or more	0.16%
	African-American	11.60%			
	Hispanic	6.77%			
	Asian	3.23%			
	Middle Eastern	0.12%			
	Mixed background	2.65%			

Instrument and measures

To qualify for the study, respondents were screened by asking a series of blinded questions. Respondents did not know what answers would qualify them for the study. Included in the screener were a number of different purchases they made and when they made them – both in consumer package goods (CPG) grocery and outside of CPG. Those who said they purchased CPG grocery in the past 24 hours were then asked what types of products they bought. If they bought within one of the eight specific categories and fit the descriptions specified above, they qualified to proceed to take the main survey. While the qualification required respondents to have purchased one of eight specific categories, the 24-hour shopping recall covered 20 grocery-related CPG categories.

The main online survey was an eighteen-page questionnaire. The survey included questions related to preferred shopping location, satisfaction with

retail stores, brand loyalty related questions, attitudes towards shopping, shopping behaviors as well as several demographic questions. For the purpose of this research and as we were interested in involvement in the grocery shopping activity, we pulled only attitudinal/behavioral and demographic data. Attitudes toward shopping and purchase behavior were measured using a 10-point scale where respondents answered a list of 16 attitudinal/ behavioral questions by stating to what extent the construct describes them at all (1: does not describe me at all and 10: completely describes me). Beyond established link in the literature between these 16 items and involvement, the performance of the 16 items was tested by Alter Agents Inc. in over fifty shopper journey quantitative online research projects they had previously conducted for other purposes. The variables used to measure shoppers' attitude towards shopping and purchase behavior are listed in [Table 2](#).

Analysis

In order to assess whether shoppers differed in terms of their involvement and attitudes towards grocery shopping, the authors used both hierarchical and non-hierarchical clustering methods to determine the optimal number of clusters (Centroid, two-step, Ward's, etc.). Respondents were clustered based on the sixteen-attitudinal variables discussed earlier. Based on squared Euclidian distances and an examination of the dendrogram two clusters have emerged from the data set. Cluster membership was assessed based on the observation's closeness to the centroids. A step-wise discriminant analysis was used to determine the attitudinal variables that mostly explained cluster membership. A cross-tabulation analysis was then performed to assess whether demographic variables correlated with the various clusters.

Table 2. Descriptive of the Sixteen Attitudinal and Behavioral Variables.

Variable	Mean	Std Dev	Median
<i>I stick to stores that I know and am familiar with</i>	8.00	2.03	8
<i>I love the thrill of the hunt for a great bargain</i>	7.02	2.81	8
<i>I prefer to pay full price rather than deal with inconveniences</i>	4.88	3.03	5
<i>I do all of my household shopping on the weekend</i>	5.19	3.17	5
<i>I love being the first to know about special deals or new products</i>	6.72	2.85	7
<i>I am happy to go to several stores to find exactly what I want</i>	6.49	2.99	7
<i>I shop almost exclusively online</i>	3.77	2.87	3
<i>I always pick a brand name item over a generic or unknown brand</i>	5.82	2.90	6
<i>I only pay attention to sales if the savings are extreme</i>	6.19	2.80	6
<i>Shopping provides an escape from stress and concerns</i>	6.41	2.98	7
<i>I go out of my way to find the best deal possible</i>	7.01	2.61	7
<i>I often look for product recommendations/suggestions before buying</i>	6.23	2.74	6
<i>I like to browse aisles and discover new products</i>	7.55	2.48	8
<i>I like to earn rewards for loyalty at a store</i>	7.87	2.48	9
<i>I am the first to have the latest, greatest products</i>	5.37	3.04	5
<i>I believe that the products I buy are a reflection of who I am</i>	6.41	2.79	7

Results

Correlations among the attitudinal variables and reliability

The correlation among sixteen attitudinal/behavioral variables was calculated. For most of the variables, there was a very weak to weak significant positive correlation ($\rho = 0.03\text{--}0.39$). Others had a moderate significant positive correlation ($\rho = 0.40\text{--}0.57$). Two pair of correlations had a strong positive correlation. Respondents that were willing to go out of their way to find the best deal were also more likely to love the thrill of bargain hunting ($\rho = 0.60$). Whereasthose that believed that they are the first who would buy the latest and best products were also more likely to love staying up-to-date on new product introduction and special deals when they first become available ($\rho = 0.63$). While the last two correlations are considered strong, they are not strong enough to posit a drop or replacement ($\rho < 0.9$; Mooi & Sarstedt, 2011). We further calculated Cronbach's alpha to test the internal consistency and reliability of the sixteen attitudinal/behavioral variables. Cronbach's alpha was $\alpha = 0.8847$ which is much larger than $\alpha = 0.70$ suggested by Nunnally and Bernstein (1994). This reflects strong internal consistency and reliability of the measures used.

Cluster analysis

Two main clusters were identified from the data. The results of k-means cluster analysis appear in Table 3 (A random seed model as well as a specified seed model performed very similarly in terms of cluster size and cluster centroids). The first cluster was labeled as "High Involvement" (HI) grocery shoppers ($n = 7535$) and the other cluster was labeled as "Low Involvement" (LI) grocery shoppers ($n = 7272$).

Table 3. Centroids for the two clusters.

	Cluster 1 HI (51%)	Cluster 2 LI (49%)
<i>I stick to stores that I know and am familiar with</i>	8.36	7.64
<i>I love the thrill of the hunt for a great bargain</i>	8.62	5.36
<i>I prefer to pay full price rather than deal with inconveniences</i>	5.83	3.89
<i>I do all of my household shopping on the weekend</i>	6.44	3.89
<i>I love being the first to know about special deals or new products</i>	8.55	4.83
<i>I am happy to go to several stores to find exactly what I want</i>	8.07	4.86
<i>I shop almost exclusively online</i>	4.94	2.56
<i>I always pick a brand name item over a generic or unknown brand</i>	7.11	4.48
<i>I only pay attention to sales if the savings are extreme</i>	7.16	5.19
<i>Shopping provides an escape from stress and concerns</i>	8.16	4.59
<i>I go out of my way to find the best deal possible</i>	8.33	5.63
<i>I often look for product recommendations/suggestions before buying</i>	7.75	4.66
<i>I like to browse aisles and discover new products</i>	8.84	6.23
<i>I like to earn rewards for loyalty at a store</i>	8.86	6.83
<i>I am the first to have the latest, greatest products</i>	7.34	3.33
<i>I believe that the products I buy are a reflection of who I am</i>	7.92	4.85

Table 4. Determinants of Cluster Membership.

Label	Partial R-Square	F Value	Pr > F
<i>I am the first to have the latest, greatest products</i>	0.436	11432.10	< .0001
<i>I love the thrill of the hunt for a great bargain</i>	0.187	3413.85	< .0001
<i>Shopping provides an escape from stress and concerns</i>	0.098	1603.69	< .0001
<i>I love being the first to know about special deals or new products</i>	0.065	1023.76	< .0001
<i>I am happy to go to several stores to find exactly what I want</i>	0.046	718.53	< .0001
<i>I believe that the products I buy are a reflection of who I am</i>	0.038	588.34	< .0001
<i>I often look for product recommendations/suggestions before buying</i>	0.023	340.89	< .0001
<i>I do all of my household shopping on the weekend</i>	0.014	213.99	< .0001
<i>I always pick a brand name item over a generic or unknown brand</i>	0.011	165.01	< .0001
<i>I like to browse aisles and discover new products</i>	0.009	137.71	< .0001
<i>I go out of my way to find the best deal possible</i>	0.007	100.73	< .0001
<i>I only pay attention to sales if the savings are extreme</i>	0.005	72.12	< .0001
<i>I like to earn rewards for loyalty at a store</i>	0.003	42.18	< .0001
<i>I stick to stores that I know and am familiar with</i>	0.001	7.76	0.0053
<i>I prefer to pay full price rather than deal with inconveniences</i>		Removed	
<i>I shop almost exclusively online</i>		Removed	

Through a discriminant analysis (see Table 4), being the first to have the newest best products was the most powerful determinant of cluster membership (F-value = 11,432 and p -value < .0001). The thrill of hunting for new deals was the second powerful determinant (F-value = 3,414 and p -value < .0001). All other variables except for two were significant determinant of cluster membership (F-value ranging from 7.76 to 1604 and p -value ranging from 0.005 to < .0001). The two variables that were not significant discriminants of cluster membership were online shopping and paying full price for the sake of convenience.

Respondents in the HI cluster were more likely to shop on weekends. They were more likely to stick to stores they were familiar with but at the same time go to several stores to find the products for which they were looking. They love the hunt of a good bargain as well as being in the know with new product introductions and new deals. They are the first to have the newest products and are more likely to browse to discover new items as well as go out of their way to find the best deals. However, they are more willing to pay full price and would only care about sales if the savings were extreme. HI respondents prefer brand name to generic and also like to gain loyalty rewards. Grocery shopping for them is an escape from their daily problems and stress. Furthermore, grocery shopping reflects their social identity whereby they perceive that the products they buy is a reflection of their image and are more likely to take into account the opinion of others before making a purchase.

Respondents in the LI cluster were the exact opposite. They were less likely to shop on weekends. They didn't care as much to find or be the first to have the best products and the newest deals. They seemed, however, to be more sensitive to pricing, as any type of savings seemed important to them. They did not prefer brand names to generic and they were not interested in loyalty rewards.

Furthermore, they are less likely to seek the opinions of others before purchase and do not seem to think that the products they buy reflect who they are as a person.

Demographic correlates

Cluster membership was significantly related with all demographic variables (see Table 5). The strongest association was between age and cluster membership (Phi coefficient = 0.25; Chi-square = 894.47; p -value < .0001). 66% of respondents in the HI cluster were under the age of 45 compared to 45% in the LI cluster. Number of kids and employment status were the next demographic variables strongly associated with cluster membership (Phi coefficient = 0.18;

Table 5. Demographic Correlates.

		Cluster 1	Cluster 2	Statistic	Value	Probability
Education	<i>Some high school</i>	3.12%	3.38%	Chi-Square	24.98	0.0001
	<i>High School</i>	39.22%	42.97%	Phi Coefficient	0.04	
	<i>Associates Degree</i>	24.19%	22.05%			
	<i>Bachelor's Degree</i>	20.13%	18.77%			
	<i>Some post-graduate work</i>	6.05%	5.68%			
	<i>Master's or Doctorate Degree</i>	7.29%	7.15%			
Marital Status	<i>Single</i>	24.45%	22.54%	Chi-Square	187.41	< .0001
	<i>Living with partner</i>	13.76%	11.58%	Phi Coefficient	0.11	
	<i>Married</i>	49.58%	45.42%			
	<i>Widowed/Divorced/Separated</i>	12.21%	20.46%			
		4.02%	2.92%	Chi-Square	461.35	< .0001
Employment Student	<i>Homemaker</i>	20.80%	15.94%	Phi Coefficient	0.18	
	<i>Retired</i>	9.09%	19.06%			
	<i>Self-Employed</i>	6.95%	8.05%			
	<i>Employed Part-Time</i>	10.70%	10.54%			
	<i>Employed Full-Time</i>	38.80%	29.85%			
	<i>Unemployed</i>	9.64%	13.64%			
Number of Kids	<i>0</i>	40.54%	58.26%	Chi-Square	458.54	< .0001
	<i>1</i>	24.87%	17.40%	Phi Coefficient	0.18	
	<i>2 or more</i>	34.59%	24.34%			
Household Income	<i>< \$50,000</i>	9.03%	13.77%	Chi-Square	200.88	< .0001
	<i>\$50,000 – \$74,999</i>	24.31%	20.35%	Phi Coefficient	0.12	
	<i>\$75,000 – \$99,999</i>	13.54%	8.99%			
	<i>\$100,000 – \$149,999</i>	49.97%	54.81%			
	<i>> \$150,000</i>	3.15%	2.08%			
Ethnicity	<i>Caucasian</i>	70.52%	80.90%	Chi-Square	266.37	< .0001
	<i>African-American</i>	13.56%	9.59%	Phi Coefficient	0.14	
	<i>Hispanic</i>	8.55%	4.93%			
	<i>Asian</i>	4.64%	1.77%			
	<i>Middle Eastern</i>	0.16%	0.10%			
Gender	<i>Mixed background</i>	2.57%	2.71%			
	<i>Male</i>	25.45%	28.00%	Chi-Square	12.23	0.0005
Age	<i>Female</i>	74.55%	72.00%	Phi Coefficient	0.03	
	<i>18–45</i>	65.65%	44.66%	Chi-Square	894.47	< .0001
	<i>46–70</i>	34.35%	55.34%	Phi Coefficient	0.25	

Chi-square = 458.54; p -value < .0001 and Phi coefficient = 0.18; Chi-square = 461.35; p -value <.0001 respectively). Only 41% of respondents in the HI clusters, compared to 58% of respondents in the LI clusters, had no kids. 19% and 14% of respondents in the LI cluster were retired and unemployed respectively, compared to only 9% and 10% in the HI cluster. Oppositely, 39% and 20% of respondents in the HI cluster, compared to 30% and 16% in the LI cluster, were employed full-time and homemakers respectively.

Household income was also associated with cluster membership (Phi coefficient = 0.12; Chi-square = 200.88; p -value <.0001). 38% of respondents in HI cluster had a household income between \$50,000 and \$100,000 compared to only 29% in the LI cluster. Actually, the majority (88%) of HI cluster had a household income between \$50,000 and \$150,000. While education and gender were significantly associated with cluster membership, the association was not strong (Phi coefficient = 0.04; Chi-square = 24.98; p -value <.0001 and Phi coefficient = 0.03; Chi-square = 12.23; p -value <.001 respectively).

Discussion

This research suggests that over one-half of grocery store shoppers are high involvement shoppers. The larger than expected involvement segment could be due to two phenomena: while a single grocery store product like shampoo or toothpaste is considered low involvement, a bundle of products during a grocery store trip can amount to a high involvement economic purchase occasion. In addition, the results indicate that a trip to a grocery store engages 'the thrill of the hunt' and is a means of escape that puts the routine grocery shopping event into a highly involving and an even enjoyable one. This research differs from previous work that either treated grocery shopping as a low involvement activity (Hamlin, 2010; McWilliam, 1992) or considered that if involvement happens, it is cue-induced and based on situational factors such as coupons (Beharrell & Denison, 1995; Hamlin, 2010).

Furthermore, the results indicate that age is the strongest determinant of cluster membership. This result is contradictory to previous research that showed that age was not a significant predictor in terms of store choice/attributes. We find that shoppers that are under the age of 45 are more likely to be highly involved in the grocery shopping activity. Interestingly, and differently than previous research, gender had a very weak association with cluster membership. Furthermore, this research points out that highly involved shoppers are not necessarily low income as previous research argued. The majority of the highly involved shoppers had a yearly income between \$50,000 and \$150,000. Thus, this research highlights changing demographics associated with involvement in the current retailing landscape.

In any event, it is clear that the days of a grocery store merely having a flyer in the Sunday paper to attract the younger shoppers are done. To better understand the implications of this research and to better address the potentially lucrative high involvement shopper, this section addresses the potential strategic implications within a grocery store's retail strategy and its digital marketing activity framework.

The results indicate that more than half of grocery shoppers are high involvement shoppers that care about being the first to know about new products and treat grocery shopping as a treasure hunt. Thus, to be relevant in today's retailing landscape, grocery stores need to emphasize the experiential aspects of grocery shopping to meet the need of the high involvement segment. Grocery stores could emphasize the emotional aspect of their stores, such as in

the case of Trader Joe's (Rintamäki et al., 2007), to enhance the treasure hunting need among shoppers. Multi-sensory stimuli enhances the experience at the store level (Rintamäki et al., 2007) and given our results, grocery stores should incorporate various stimuli such as visual, auditory, or olfactory to enhance the shopping experience and engage the high involvement shopper. Better experience at the grocery store level satisfies high involvement shoppers and make them come to the store more frequently increasing store traffic overall, ultimately increasing purchase and word-of-mouth activities (Jahn, Nierobisch, Toporowski, & Dannewald, 2018).

Results showed no difference between high and low involvement segments in terms of mobile shopping behavior. The lack of significance of mobile shopping as a determinant of cluster membership could be due to its emerging nature as the expected online grocery market in 2020 is only 3–4% (Sloot, 2018). Even though there is no difference in term of mobile shopping between the different segments, previous research noted that for high involvement situations, mobile phone usage was critical in the decision making process (Holmes et al., 2014). In addition, this study indicates that the highest demographic determinant of cluster membership is age. Shoppers aged 45 or lower are more likely to be highly involved in the grocery shopping process. Previous work notes that younger shoppers are more likely to be online as well as shop for groceries online (Van Droogenbroeck & Van Hove, 2017). Thus, engaging shoppers online is critical for the younger high involvement segment.

Furthermore, interactive technologies whether within a store or online could provide retailers with a competitive advantage in the current retailing landscape (Varadarajan et al., 2010) and could help enhance the experiential aspect of grocery shopping. Wang, Krishnamurthi, & Malthouse (2018) noted that merely the creation of an online application enhanced participation and engagement in a loyalty program and in turn increased loyalty to the store itself. In addition, Kleinlercher, Emrich, Herhausen, Verhoef, and Rudolph (2018) noted that communicating information about the retail store on the retailer's website is critical to increase the chances of the retailer being the choice of shoppers. Thus, there is a high need for grocery stores to integrate both online and offline activities.

To effectively engage the high involvement shopper, a grocery store's digital marketing strategy, at a minimum, should include the following five elements that relates to website, search engine optimization, weekly email newsletter, blog writing, and customer check-ins.

Website

The website should be the core of a store's digital marketing campaign. The high involvement shopper cites 'the thrill of the hunt' as a prime shopping motivator. The store's website should provide that. High involvement shoppers say they are the first to buy the latest and best products, so the website should provide a sign up form providing key customers weekly emails with specials and promotions only to store community members. Grocery stores should not shy away from promoting the more expensive name brands as opposed to the cheaper store brands on their website. High involvement shoppers feel that the products they buy say a lot about them so they are ready to pay a premium for the stronger branded product. Results show that the shopping experience can be an escape for the high involvement shopper. A grocery store's website should be focused on building a community of loyal shoppers. Current and prospective shoppers should perceive the business more like a shopping experience and less like a grocery store. This will not occur immediately. It

will take some time but should pay off in the medium term.

Search engine optimization (SEO)

Search engine optimization will maximize the impact of the website over time by enhancing its ranking ability providing significant SEO. High involvement shoppers work hard to find the best new products and best new deals. It is essential for stores to be visible when customers are conducting local search queries. Make it easy for them. The high involvement shopper is motivated by the thrill of the hunt and organic search is essential in this case.

Weekly email newsletter

A store should encourage the local community to sign up to receive a regular electronic mailing. Make it easy to participate and communicate the rewards associated with doing so. Build a community that feels exclusive to the high involvement shopper. This will allow the store to reach out to them whenever it wants. This tactic is a fraction of the cost compared to traditional offline communication tactics.

Blog writing

Use blogs to express the store's personality and uniqueness. Through the blog, the store should get the community buzzing. A blog provides the ability to make a daily journal entry for their store. This research shows the high involvement shopper is likely to rely on the input of others prior to their shopping trip. Blogs can inform this high involved shopper. Blogs should be used to keep the store fresh and continually relevant. Entries can be anything a store deems valuable and differentiating. This research suggests, targeting the high involvement shopper with key deals on brand names and new products. Some blog topics might include loyalty programs, customer of the month (recognizing shoppers that "hunt the best" emphasizing the social aspect), product features, in-store events, weekly specials, shopping tips, company news, and employee write-ups. All of these facilitate high involvement shoppers engaging in the 'thrill of the hunt.'

Customer check-in

"Check-ins" are an emerging and popular method to pulling in incremental foot traffic to the retailer. This addresses the 'thrill of the hunt' desire for high involvement shoppers. In real time these shoppers are on the move. Foursquare is a leader in geo-targeting check in endeavors for brick and mortar retailers looking to pull in new customers but Facebook is another popular and growing check-in method.

Conclusion

This paper looked at a context that has been long deemed as low involvement – grocery shopping and showed that grocery shopping can be a highly involving activity. Based on 16 key attitudinal and behavioral items, this study points that a large percentage (53%) of shoppers can be characterized as high involvement grocery shoppers. These shoppers tend to be younger, more likely to have kids, more likely to be employed or be homemakers, and have a yearly income between \$50,000-\$150,000. Interestingly, our results show that gender had weak association with cluster membership. This research emphasizes the need for retailers to enhance the

experiential aspect of both their stores and their online platforms to be able to engage this younger high involvement segment. It is essential to utilize these aforementioned methods to engage shoppers, in order to build a community that is loyal to the retailer. Furthermore, this research indicates that demographics such as gender might not be as important in explaining shopping behavior in today's retailing landscape as it used to be.

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