A STUDY OF CUSTOMER VALUE AND LOYALTY IN THE SUPERMARKET INDUSTRY

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Abstract

The value of customer loyalty to business sustainability should not be taken lightly. Research shows that loyal customers are more profitable than non-loyal customers. Indeed, this study found that loyal supermarket customers shop more often and spend more when shopping. Retaining customers makes good business sense and costs less than attracting new ones. Negligible switching costs and the quest for value strain the loyalty relationship between supermarkets and their primary shoppers. Therefore, the purpose of this study was to identify how the independent variables of value (price, quality, service, convenience, and assortment) contribute to customer loyalty among supermarket customers. The research design for this study was quantitative non-experimental. Data for the study was collected from an electronic email invite through Survey Monkey. With a confidence level of 95% and a margin of error of +/-5%, the targeted sample size was 384, with a final filtered total of 354 usable surveys. Multiple linear regression and Spearman rho correlation techniques were used to determine significance of data collected to customer loyalty. Results from this study indicate that quality has the greatest effect on customer loyalty. However, significant interaction and modifying effects were also detected, indicating that predictors of loyalty should not be examined in isolation. Collectively, data from this study indicated that as quality, service, assortment, loyalty programs, and high quality perishables increased, loyalty also tended to increase.

Dedication

This dissertation is dedicated to my family. The unwavering support, patience, and guidance from my wife Teresa and son Lucas during my continuing educational efforts provided support needed for me to make this journey.

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This rewarding journey has been full of challenges and would not have been possible were it not for the unwavering support and constant coaching from my wife Teresa and son Luke. Together, they provided me with emotional support and encouragement when I needed it the most. For business acumen and guidance, I would like to acknowledge Dr. Russell Zwanka, CEO of Triple Eight Marketing, Dr. John Stika, CEO of Certified Angus Beef, Dr. Steve Mayer, GVP at Schnucks Supermarkets, Anthea Jones, COO Fresh Markets, and Sue Wilkinson, Senior Director, Information Service & Research at the Food Marketing Institute.

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CHAPTER 1

INTRODUCTION

Supermarket customers seek more value for their money, a behavior supported in the Food Marketing Institute's (FMI) supermarket shopper survey (Brown, 2013). As supermarket customers seek value, they are becoming less loyal to a particular supermarket, which strains the relationship between supermarkets and their primary shoppers. For example, Brown reported that the 2013 FMI survey indicated supermarket customers have diversified their primary shopping to an average of 2.5 primary stores and customers with no primary store increased from 3% to 9%. Primary and loyal shoppers are referred to in this study as customers who frequent a specific supermarket most often. Primary loyal customers are important to supermarkets as they typically spend more while shopping and are more profitable to supermarkets (Gentry & Kalliny, 2012).

According to Jenkins (2010) and Gentry and Kalliny (2012), increasing a store's loyal customer base can provide opportunities for enhanced profitability and business sustainability. Moreover, Seenivasan (2011) and Hassan (2012) suggested that loyalty is a key component to a supermarket's success. A strategy that delivers value and at the same time creates loyal behavior can be a daunting feat for supermarket marketers (James, 2012; Hassan, 2012). First, supermarkets, supercenters, dollar stores, and drug stores offer similar products and services at comparable prices. Second, market saturation within the food channel results in multiple retailers conveniently offering similar products and services for customers. Market similarity coupled with the customer's quest for value fuels customer diversification of primary stores shopped. Finally, with customers seeking more value, marketers devising strategies for loyalty need to understand the relationship that value has to loyalty.

Frugality at the supermarket has customers stretching their food dollars; as a result, unit volume in supermarkets is flat (Hamstra, Angrisani, Telesca, & Gallagher, 2013). Brown's (2013) FMI survey data indicated that customers average just over two trips per week to the supermarket and spend just over $27 per trip. Additionally, 48 % of U.S. supermarket customers have accepted living with less; a figure expected to rise to 53 % by the year 2025 (Brown, 2013). For supermarket managers, this means customers make fewer purchases to stock the food pantry. Fewer customer purchases heighten the need to retain and increase an organization's loyal customer base. Additionally, Brown (2013) indicated that 70 % of customer households seek discounts. This frugal behavior supports the importance for supermarkets to instill a perception of value with customers to increase loyal behavior.

The independent variables for this study are price, quality, service, convenience, assortment, and value. Independent variables, as expressed by Creswell (2009), are those variables that may influence or alter outcomes of a dependent variable. The dependent variable in this study is customer loyalty. This study on value and loyalty determined the significance that price, quality, service, convenience, assortment, and value have to the relationship to customer loyalty in Atlanta, Georgia supermarkets. Moreover, identifying the level of relationships between independent variables customers deem relevant to value provided insights to drivers of customer loyalty. From data collected on value and loyalty, supermarket managers can construct value strategies aimed at increasing and creating loyal or primary shoppers. Furthermore, Creswell (2009) indicated that moderating variables are independent variables that when multiplied or combined together by the researcher affect the strength and relationship between independent and dependent variables. From a theoretical perspective, the results of this study indicate that when supermarkets offer customers multiple variables of value, perception of value and customer loyalty increases.

To support that price and quality are independent variables contributing to value and loyalty, a 2011 Mass Market Retailer report indicated that the dollar stores are racing to gain value perception and customer loyalty by improving quality. The same report indicated that supermarkets with high quality perception are working to improve value perception through aggressive pricing strategies. With supermarket customers expecting more value, opportunities exist within the retail food channel to meet increasing demand for value.

Brown (2013) indicated that customers expect more than low prices for a product or service to represent value (Table 1). Hassan (2012) indicated that value to supermarket customers includes several components including price, quality, and location. Insights from current research indicate that the challenge facing supermarket marketers is to understand how customers define value and identification of which independent variables of value motivates customers to patronize their store.

Table 1

Value Indicators

Variable	Indicator
Price	Low prices Items on sale
Quality	High quality, fresh foods
Assortment	Selection of special items
Convenience	Convenient location Products easy to find
Overall experience	Friendly service Self-checkout Product samples

Brown (2013) Food Retailing: Tomorrow's trends delivered today.

Brown's customer report indicated that customers view price as most important, followed by quality, assortment, convenience, and overall experience (Table 1). However, Brown's report does not indicate which variables contribute to customer loyalty. Furthermore, research indicated that intense competition, lack of differentiation (Hassan, 2012), negligible switching cost, and changing customer needs (Min, 2010) further intensify the threat existing for supermarkets and food channel retailers seeking to enhance customer's perception of value.

Background of the Study

Within the retail food channel, perceived value and loyalty became topics of concern to marketers in the early 1990s. Zeithaml (1988) indicated that value attributes link to price and quality and, additionally, that customers define value differently; thus, strategies for value should include multiple methods for adding value and that strategies for value creation must change as customer perceptions change. Kerin, Jain, and Howard’s (1992) study on price, quality, and value perceptions supported earlier studies that suggest value includes more than the price and definitions include the effect that store-shopping experience has on value. Collectively, Zeithaml (1988), Kerin, et.al (1992), and Hassan (2012) indicated that the relationship between price, quality, and value perception has remained constant. Dobre, Dragomir, and Isac (2011) supported early studies on price and quality and indicated that price alone without perception of quality results in customers having a lower recognition of value. A lower recognition of value can result in diminishing purchases and loss of customers to rivals offering better value. This loss of value recognition and purchases supports Brown’s (2013) findings that primary supermarket customers are becoming less loyal to one supermarket.

Hansen, Jensen, and Stubbe (2011) indicated that customers with a price preference over quality switch between retailers to find the best price. Customers that justify switching based on price rather than quality are less likely to remain loyal to one supermarket, which negatively impacts store loyalty. Background studies (Min, 2010 & Seenivasan, 2011) indicate that customer perceptions of value have evolved; therefore, the importance practitioners place on strategies for value and loyalty must also evolve.

Statement of the Problem

As shoppers seek more value in their purchases, customer loyalty can diminish and erode profitability, which poses a business problem to supermarkets. Jenkins (2010) and Gentry and Kalliny (2012) indicated that increasing a store's loyal customer base provides opportunities for enhanced profitability and business sustainability. Hassan (2012) indicated that loyalty is a key component to a supermarket's organizational success.

There is no consensus as to which aspects of value customers deem relevant and that influence their loyalty. In theory, a perception of value reached through multiple independent variables will contribute to higher levels of customer loyalty. For example, successful value propositions could include a balance of the following: price and quality (Seenivasan, 2011); service (Min, 2010); convenience (Mittal & Gupta, 2012); and store atmosphere (Hassan, 2012). This balance would indicate that supermarket retailers utilizing price reductions alone for value creation miss opportunities for building customer trips desired to increase primary shoppers and build loyalty.

Purpose of the Study

The purpose of this study was to identify the independent variables of value (price, quality, service, convenience, and assortment) that contribute significantly to customer loyalty among supermarket primary and secondary customers. Understanding how multiple predictors of value influences loyalty individually and in aggregate will help supermarket marketers effectively deploy value strategies to increase customer loyalty and profitability. Multiple aspects of value expressed by customers leave retailers with tough decisions on how to increase loyalty, further supporting the need to isolate and quantify the contribution of each variable to customer loyalty. In fact, Min (2010) and Hassan (2012) indicated that studies have fallen short of identifying the attributes of value that lead to loyal behavior, which further justifies the need to determine the independent effect of multiple variables on customer perceptions of value and loyalty in food channels. Successful value and customer loyalty propositions should consider a balance of the independent variables found that contribute most to loyal behavior.

Rationale

Supermarkets, convenience stores, mass merchandisers, club stores, specialty food stores, drug stores, and dollar stores within the food channel are all expanding their food offerings in an attempt to increase customer loyalty. This market saturation means that in addition to supermarkets, alternative food channel retailers consist of similar products and services and in many areas compete in saturated markets creating an environment conducive to diminishing customer loyalty. Min (2010) indicated that supermarket customers actively seek more value and more ways to get value from their food purchases.

As today's customers shop among multiple food retailers seeking the best value, supermarkets must construct new strategies aimed at value creation. With multiple retailers in the food channel vying for the same customer food dollars, supermarkets that focus on meeting customer needs better than rivals have the best chance of satisfying and retaining customers (Mittal & Gupta, 2012). Thus, supermarkets will benefit by using value perception to satisfy customer needs and to differentiate themselves from their rivals. This differentiation will lead to increased customer trips needed to build loyalty.

Research Questions

The dependent variable in this study is customer loyalty. The methodology is quantitative in design. The study's research questions tested and validated the hypotheses related to value and loyalty. Based on identified independent variables of value and the dependent variable of loyalty, the study addressed the following research questions.

> RQ1. To what extent do the independent variables of value (price, quality, service, convenience, and assortment) have a significant contribution on loyalty of supermarket customers in Atlanta, GA?

Woodall (2009) identified price, quality, and service as key independent variables affecting customer loyalty. Building on Woodall's study, Gentry and Kalliny (2012) linked service and quality to loyalty, and suggested that customer service is affected by perceptions of good service, which is itself a correlate of the overall perception of the supermarket by its customers.

> RQ2. To what extent does a store's atmosphere/environment have a significant contribution on loyalty of supermarket customers in Atlanta, GA?

Anderson (2103) suggested that customers rate a store's atmosphere higher when it is stimulating and attractive and that a store's atmosphere affects store loyalty. Supporting Anderson's proposition, Bagdare (2013) indicated that store convenience, followed by store atmosphere, relationship orientation, and store staff had the strongest association when customers rated overall experience. This indicates that stores with atmospheres that are less appealing to customers have to invest more in price, service, and quality to garner the same experience ratings.

RQ3. To what extent do store loyalty programs contribute to loyalty of supermarket customers in Atlanta, GA?

Woodall (2009) found that loyalty programs that convey a value message support loyal behaviors. Similarly, Jenkins (2010) used regression analysis to show contributing elements existed between value, loyalty, and loyalty programs.

RQ4. To what extent do the presence of store private brands contribute to loyalty for supermarket customers in Atlanta, GA?

Assortment within supermarkets includes a store's private brands and, according to Brown (2013), supermarkets are increasing the number of private brands they offer. Barnett (2010) indicated that as the economy slowed, customers were increasingly turning to store brands as an alternative to higher-priced premium-branded products. Additionally, Barnett indicated that as supermarkets recognized this shift in customer preference, marketing more stock keeping units (SKUs) of store brands to supermarket customers became options touted for saving customers money.

RQ5. To what extent does the quality and freshness of perishable foods contribute to loyalty for supermarket customers in Atlanta, GA?

Recent surveys conducted by Brown (2014) indicate that supermarket customers are placing more emphasis on the quality and freshness of perishable foods. For example, Brown's survey revealed that customers rate produce departments that are well stocked with fresh fruits and vegetables and meat departments offering high quality meats as important when deciding a primary store.

Significance of the Study

Results of this study provide supermarkets with insights on how to increase loyal customers. Loyal customers increase opportunities for profitability more so than non-loyal customers (Gentry & Kalliny, 2012). Additionally, Gentry and Kalliny indicated that through effective value strategies, differentiation among rivals provides a competitive advantage that contributes to loyal customer behavior. Furthermore, from a cost perspective, knowing which independent variables of value to employ will reduce costly errors resulting from implementing value strategies not relevant to customer loyalty.

Once established, successful value strategies provide differentiation among supermarket rivals and create a competitive advantage needed to maintain and grow a loyal customer base. Perceptions of value, value claiming, and value propositions are strategies cast widely and designed to get credit from customers for value. Zeithaml (1988), Kerin, et.al (1992), and Hassan (2012) indicated that many strategies lack specific definitions that provide useful managerial solutions. For example, if data from the study had indicated that price was more relevant to perception of value than customer service, using price would contribute more to value perceptions than service. Likewise, if customer service is more important than price, supermarkets seeking credit for value will benefit from adding more service clerks rather than lowering prices.

Supermarkets depend upon customer purchases to remain profitable; thus, many supermarkets and other retailers in the food channel are using value and perception of value as a core strategy to increase purchases from existing loyal customers, and at the same time to attract new customers. Day (2002) indicated that value-related marketing programs might benefit from service-related strategies; hence, poor service or service related to areas that are more emotional have limits to an acceptable value as customers draw the line between benefits received and the cost to get them.

Definition of Terms

Assortment. Briesch, Chintagunta, and Fox (2009) define assortment as the selection or variety of products available within supermarkets and food channel retailers. Additionally, for this study, stock-keeping units (SKUs) will also be referred to as product assortments.

Category management. Pepe and Pepe (2012) indicated that category management is the process undertaken by managers within the supermarket industry to evaluate products within specified categories as presented for sale within retail food outlets.

Customer perception of value (CPV). From a theoretical perspective, Zeithaml (1988) concluded that perceived value is the customer's overall assessment of the utility of the product based on perceptions of what customers received and what is given. Additionally, (Chang & Dibb, 2012) indicated that perception of value is a tradeoff between cost and benefit and that each customer places different values on the benefits received.

Customer value (CV). Customer Value is the benefits received by customers for the cost/sacrifice given (Zeithaml, 1988).

Consumer price index (CPI). First used in 1948, the consumer price index (CPI) is an index measuring the change in the cost of typical wage-earner purchases of goods and services expressed as a percentage of the cost of these same goods and services in some base period; also called the cost-of-living index. The U.S. Department of Labor, Bureau of Labor Statistics publishes CPIs for two population groups: (a) the CPI for Urban Wage Earners and Clerical Workers (CPI-W); CPI-W covers households of wage earners and clerical workers that comprise approximately 29 percent of the total population and (b) the CPI for All Urban Consumers (CPI-U) and the Chained CPI for All Urban Consumers (CCPIU), (U.S. Department of Labor, Bureau of Labor Statistics, 2013).

Dollar store. The Food Marketing Institute's website (2013) defines Dollar Stores as smaller store formats that traditionally sold staple foods and knickknacks, but now offer food and consumable items at aggressive prices.

Food channel. The retail food channel refers to chain and independent retailers of various types that devote significant amounts of space to fresh and/or shelf stable food as well as beverages (FMI, 2015).

Market segments. Market segmentation consists of partitioning a market into groups or subgroups that consist of similar preferences or market offerings (FMI website, 2015).

Quality. James (2012) indicated that supermarket customers relate quality attributes to overall value perceptions and that customers can view quality different based on perceptions of value. The American Society for Quality (ASQ.) suggests that quality is subjective and is based on each person having a different definition of quality.

Supercenters. According to Hansen and Singh (2009), supercenters are a hybrid of a large traditional supermarket and mass merchandisers, such as Wal-Mart or Target, and are much larger than traditional supermarkets and typically operate in an everyday low price (EDLP) format. Supercenters average more than one hundred seventy thousand square feet and typically devote as much as forty percent of the space to grocery items (e.g., Wal-Mart Supercenters, Super Target, Meijer, and Fred Meyer).

Traditional supermarket. Hansen and Singh (2009) describe traditional supermarket as stores that offer a full line of groceries, meat, and produce and indicated that these stores typically carry anywhere from fifteen thousand to sixty thousand SKUs, depending on the size of the store, and many offer a service deli, a service bakery, and/or a pharmacy. Traditional supermarkets consist of similar products and services and in many areas compete in markets saturated with other retailers vying for the same customers.

Value proposition. Hassan (2012) indicated that value propositions are written statements "focusing all the organization's market activities onto customer critical elements that create a significant differential within the customer's decision process" (p.69). Value propositions can be similar to an organization's mission statement and can provide management within an organization a foundation to base decisions of value that resonate with customers.

Wholesale clubs. Courtemanche and Carden (2014) refer to Wholesale Clubs as a membership only retail/wholesale hybrid with a varied selection and limited variety of products presented in a warehouse-type environment. Wholesale Clubs average 120,000 square-feet and have sixty to seventy percent general merchandise, followed by health and beauty care products, and grocery variety dedicated to large sizes and bulk sales.

Assumptions

A key assumption of this study was that descriptive quantitative measurements will provide the best description of the data. Descriptive measurements were also utilized in a similar study of customer value and loyalty by Li (2011). Additionally, it is assumed that the findings of this study will be applicable across a majority of the supermarket industry and, through an effective sample strategy, will be applicable across the general population. Further, it was assumed that customers indicating they were the primary shoppers conducted the majority of supermarket purchases for their household. Finally, it was assumed that customers answered the survey questions honestly and objectively and that study participants under age 21 or over age 65 did not complete the survey.

All surveys were validated and coded to maintain privacy and confidentiality. The study and questionnaire targeted retail supermarket customers; however, customers may have related value and loyalty to all retail outlets. Furthermore, the research was conducted in a manner consistent with Capella University’s standards for ethical research.

Limitations

The surveys were limited to customers reached by Survey Monkey; therefore, the study was limited to customers with access to email. The study limitations included geographic size of the area surrounding Atlanta, GA. Although the area consisted of urban, suburban, and rural customers, the demographics did not provide an exact match of the overall population in terms of education, income, or ethnicity. Additionally, monetary costs associated with conducting surveys and time restraints limited survey volume and the geographical extent of the study area.

Theoretical Framework

Supermarket customers seek value. From a historical perspective, value theories align with Menger's "subjective theory of value" and Vroom's (1964) "expectancy theory." Menger's theory, from the 1800s, states that both sides gain from the exchange and that people will exchange something they value less for something they value more (Figure 1) (Menger, trans. 2014, para.3).

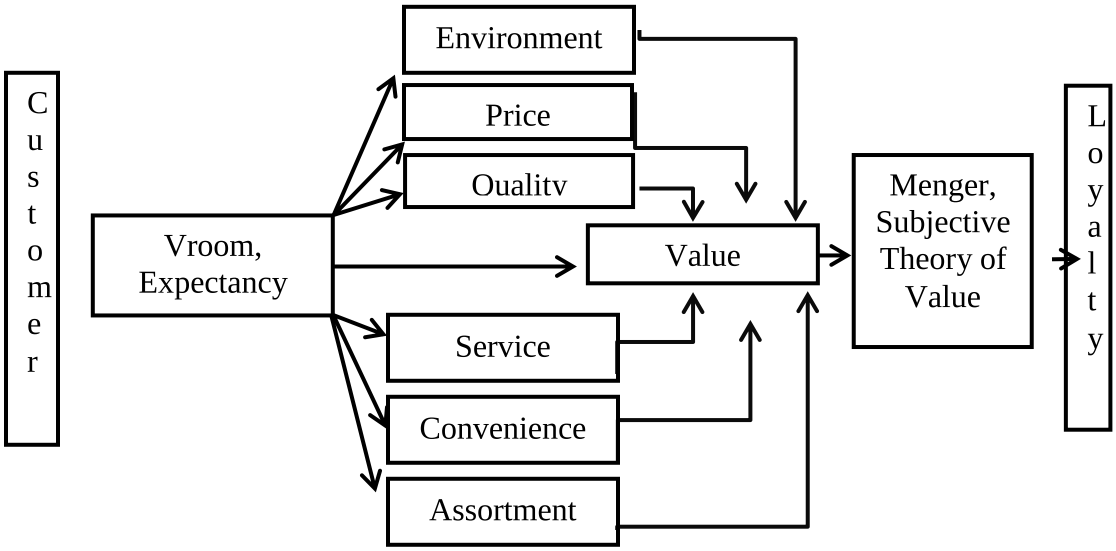

Figure 1. Loyalty Influence diagram. Subjective Theory of Value: Menger, Both sides gain from exchange and that people will exchange something they value less for something they value more (Menger, trans. 2013). Expectancy Theory: Vroom, motivation is based off how many rewards are desired (valence); the effort leads to expected performance (expectancy), and the performance then leads to reward (instrumentality) (Vroom, trans. 2014).

Menger's economic insight applies to the exchange between customers and organizations; value is expressed when customer funds are exchanged for goods and services received (Table 2). Vroom's expectancy theory is based on employee motivation and assumes that employee motivation is based off of how many rewards are desired (valence); the effort leads to expected performance (expectancy), and the performance then leads to reward (instrumentality) (Vroom, trans. 2014). Applying Vroom's theory to customer's perception of value, customers desire rewards (independent variables of value) that lead to an expected performance; the outcome (instrumentality) of which is customer loyalty (Table 2).

Table 2

Reference to Theoretical Literature

Constructs	Authors	Findings
Perception of Value	Zeithaml (1998)	Zeithaml (1988) identified three customer values: (a) low price, (b) quality and value for money, and (c) features. Zeithaml indicated, "perceived value is the customer's overall assessment of the utility of a product based on perceptions of what is received and what is given" (p.4).
	Kerin, Jain, and Howard (1992)	Value includes more than price; includes the effect that store-shopping experience has on value.
	Dobre, Dragomir, and Isac (2011)	Price perceptions indicated that price alone without perception of quality results in customers having a lower recognition of value.
	Hassan (2012)	Customer value can be seen as a more personal and holistic view of quality (Hassan, 2012).

Many independent variables relate to perceptions of value. This study identified meaningful variables influenced most from strategies aimed at value and customer loyalty; that is, identification of independent variables (*sensu* Creswell, 2009) that when combined affect the strength of customer loyalty. Similar to Menger's theory on value, the results of this study indicated that when offered multiple variables of value, customers felt they received a value.

Organization of the Remainder of the Study

Chapter 2 discusses perceptions of value and how they affect loyalty. Further, independent variables influencing value perception and loyalty are iterated and reviewed. Chapter 3 outlines the design of the study, including data collection protocols and methods of statistical analysis. Study results are presented in Chapter 4, while chapter 5 interprets the results and lays out managerial recommendations for constructing strategies aimed at value creation within the supermarket industry.

CHAPTER 2

LITERATURE REVIEW

Customer value is a fundamental principle of marketing researched and studied by scholars and practitioners alike. However, research specific to value, and evaluation of the contribution that value has on loyalty within the supermarket industry, is limited. What research has been conducted on value perception and its contribution to loyalty, suggests that value perceptions are affected by a multitude of inputs (Hassan, 2012). Independent variables (*sensu* Creswell, 2009) are those variables that influence outcomes, which are measured as dependent variables. Primarily, this study addressed whether value (measured as the following independent variables: price, quality, service, convenience, and assortment) significantly affects customer loyalty, the dependent variable. Below, factors that influence perceptions of value and loyalty are reviewed; further, a causal model, with testable predictions, linking value and loyalty is laid out.

Theoretical Review

The basic theory for customer value (CV), and for perceived customer value (PCV), is that when customers feel that they get higher quality or more products and services for less cost/sacrifice, their perception of value increases. This study builds on the hypothesis that customers generally seek some form of value and that as perceptions of value increase, loyalty increases. Brown's (2013) FMI study supports this theory and indicates that customers' quest for value will continue to expand. Customers across all retail industries are expected to seek value when planning purchases. Interpretation of the study's findings will set the stage for marketers to transfer value strategies across multiple industries.

Price

Does price significantly contribute to loyalty among supermarket customers? Previous studies indicate that price does contribute to loyalty; yet, these studies failed to measure the significance of the contribution. Price is a common metric customers utilize to rate quality, value, and service. Theories on value suggest customers justify price paid for benefits received. Min (2010) indicated that low price alone does not represent a perception of value to customers and that, in addition to price, value perception includes service and quality. Min's study sought to identify what causes supermarket customers to cross-shop other retailers, which may negatively impact loyalty. In part, market saturation within the retail food channel makes cross shopping easy for customers and increases the need for supermarkets to offer the best value. Min indicated that customers are value savvy and, while cross shopping, compare-shop supermarkets; additionally, when related to quality, Min's study indicated that customers link quality to customer service. Thus, the study provided insights into how customers view service, quality, and value as close constructs.

From a marketing perspective, price ranks high in the hierarchy of the four Ps: price, product, promotion, and placement. Ehmke, Fulton, and Lusk (2013), of Purdue University's Agriculture Innovation and Commercialization Center, suggest that marketers often relate price to how much they will charge for a product or service based on the cost, competitive price comparison, like products, and customer demand. Weekly supermarket advertisements provide a snap shot of how retail food channel marketers, who balance prices on thousands of products across multiple categories, assemble price offerings to customers. In fact, the Food Marketing Institute reports that average supermarket assortment includes up to 45,000 products. To understand pricing trends by category, marketers can compare prices to competitors within the retail food channel, or turn to the consumer price index (CPI) for comparisons.

The U.S. Department of Labor, Bureau of Labor Statistics reports the CPI based on customer purchases of goods and services expressed as a percentage of the cost of these same goods and services in specific base periods. For January 2013, the CPI released for the retail food channel indicated that three major grocery store food group indexes increased: dairy and related products rose 0.4 percent, fruits and vegetables index rose 0.3 percent, and the index for cereals and bakery products increased 0.1 percent. In contrast to these increases, the index for nonalcoholic beverages declined 0.5 percent, while meats, poultry, fish, and eggs were unchanged. Additionally, the report indicated that over the last quarter of 2012, the food at home index rose 1.1 percent, with fruits and vegetables posting the largest increase, 2.9 percent, over that span (U.S. Department of Labor, Bureau of Labor Statistics, 2013). CPI data, along with competitive price comparisons and customer’s knowledge of prices, point to the important effect price has to marketing value and loyalty strategies designed to enhancing organizational profitability.

Customers often understand price as the cost they have to pay and attempt to minimize that cost. In contrast, marketers view price with an eye on potential profits.

Price is a fundamental aspect of marketing, as indicated by inclusion within the four Ps of marketing. To help supermarket marketers with clarity, FMI conducts annual surveys that provide insights to customer trends within the retail food channel; for example, the 2013 survey utilized data from over 1500 customers to compile the customer trends report (Brown, 2013). Brown's (2013) FMI report concluded that customers view price and value as important, followed by quality, convenience, and assortment. This finding echoes those of many other studies that have concluded that price is a core component in customers' perception of value (e.g., Zeithaml, 1988).

Brown's (2013) FMI customer trends survey provided insights to how customers rate supermarkets that offer low prices. Participants were a minimum of eighteen years of age, have primary responsibility for grocery shopping, shopped for groceries within the prior two weeks, and have a grocery store considered as a primary store shopped. Brown utilized A.C. Nielsen to manage the data collection for the customer surveys. A.C. Nielsen weighted the raw data back to a nationally-representative sample of shoppers in order to avoid a bias toward more active online users or survey takers. The samples match the census profile by gender, income, ethnicity, age, and other factors. The resultant sample is a nationwide cross-section of grocery shoppers.

Price and price management are critical aspects affecting supermarket profitability. Selling products too cheaply erodes profitability, while setting prices too high deters customers from purchasing altogether. In addition to utilizing CPI data, store-level management practices benefit from utilizing category management data to assist in pricing decisions. This relationship was outlined by Pepe and Pepe (2012), who found that utilizing category management when making customer-centric decisions surrounding price and assortment creates a competitive advantage over rivals. Thus, formulation of category management provides a significant marketing tool for determining price and assortment aimed at delivering value to customers. Supermarkets utilize category point of sale (POS) data to deliver customer value within the supermarket industry and, through effective category management practices, supermarket management can ensure that offerings on the shelf are relevant, priced at market value, and provide the mix of products needed to maximize profitability (Pepe and Pepe, 2012).

POS category data provides management with insights on customer trends, product preferences, and an overview of the health of a specific category with the supermarket. Pepe and Pepe's (2012) interview with a supermarket category manager indicated that perception of value plays a factor in category management's execution of the four Ps of marketing. The study by Pepe and Pepe supports the theory that perception of value is a topic of concern with supermarket management. The study indicated that as supermarkets deploy category management practices, their ability to deliver value within internal product categories increases. For example, data mining from specific categories will identify products within a specific category that customers view as price sensitive.

Category specific data provides marketers the ability to alter price and promotion needed to deliver maximum profitability while still presenting a value to customers. Once customers are in the store, many supermarkets communicate their value offering through category point of sale data. Categories within supermarkets consist of multiple sections containing similar products; for example, canned vegetables, cereals, cleaning supplies, dairy, frozen foods, bakery, deli, meats, and produce all have multiple brands consisting of like products. Category management influences pricing strategies for customers, and utilize point of sale to bolster value propositions (Pepe & Pepe, 2012).

Communicating price without reference to value or savings limits the perception of value from the customer. Pepe and Pepe (2012) refer to POS as a method for retailers to communicate value. For example, if a product has a regular retail of one dollar, and a sale retail of seventy five cents, showing the savings of twenty five cents would indicate to customers a savings, or possible value. The same item merchandised for seventy-five cents and showing no savings fails to communicate value to customers. Many supermarkets communicate price and savings through in-store signage, shelf price tags, and special price labels.

In addition to savings, the price of a product or service indicates potential quality to customers. Dobre, Dragomir, and Isac's (2011) study of price and perceived value indicated that the selling price of products implies a level of quality and value when customers are unfamiliar with the product being purchased. For example, customers perceive that a product has value if it has a low introductory price paired with a claim of good quality. Likewise, if a product has a higher price with no claims of quality, customers perceive the product as having less value (Dobre et al., 2011). Prices clearly impact perceptions of value. Dobre's study indicates that price is an independent variable affecting value; though, it suggests that price does not act singularly to do so. Kanagal (2013) also suggested that price is correlated with perceptions of value. Kanagal's empirical study conceptualized the construct of perceived value price and indicated that ‘money for value’ is acceptable to the customer. According to Kanagal, perceived value pricing consists of the process of providing benefits and the functionalities of good price to customers.

Pricing that provides functionality to customers is often referred to as a utilitarian shopping experience, while shopping that delivers emotional or fantasy experiences are considered as a hedonic experience of shopping. Perceived value pricing also ensures that organizations attain value for the customer while maintaining a price that helps deliver profitability. Customer response to pricing and promotions create positive or negative impact to overall value perceptions. Zielke (2011) conducted an empirical study to analyze how price and value perceptions influence price-related emotions and how customer emotions regarding price impact the customer shopping experience.

Zielke’s (2011) introduced customer emotion into the value perception discussion and found that several emotions regarding price mediate the impact of customer price perceptions in retail stores. Customers that have a bad emotional feeling of their purchase due to price, demonstrate changes in value expectations. For example, if the customer feels they paid too much for a product, they will have higher expectations of value for the product or service than if the price was lower. Likewise, if a lower price is paid, the expectation of value or perception of value is less.

Customer demand, and the ability to make purchases affect price effectiveness. Žemgulienė’s (2013) study on customer pricing, image, and perception of value related to premium prices, indicated that customer income provides an indication of a customers’ willingness to pay higher prices. Žemgulienė utilized a household retail goods store to collect customer data from one hundred ninety seven customers. Žemgulienė used structural equation modeling to analyze hypothesized causal relationships among variables. A chi-square and goodness of fit indices measured the overall fit assessment. Žemgulienė determined that customers with higher incomes demonstrated a willingness to pay a higher price to attain value, which may indicate that supermarkets with customers in higher income demographics are less sensitive to price when determining perception of value.

Aligning with Žemgulienė (2013), Kanagal (2013) provided empirical results that indicated perceived value pricing would best fit products and categories with a higher image of quality or luxury. Linking price to value, perceived value pricing highlights the importance of providing benefits and functionalities of price to the customer, yet pricing effectively for organizational value. From a strategic pricing aspect, implementing this model should leverage price to garner maximum profitability and still provide customers with an entry price that represents value. When applying this theory to the POS strategies identified by Pepe and Pepe (2012), marketers should include quality messaging for goods and services that warrant higher pricing. Just as with communicating savings to garner a value message, highlighting quality attributes will resonate as value with customer segments referenced by Kanagal and Žemgulienė.

Understanding that customers are sensitive to price and quality should assist management in determining which items customers deem as price elastic. In turn, understanding product price elasticity provides marketers insights into how customers will react to changes in price and promotions. Pauwels, Srinivasan, and Franses (2007) indicated that within supermarkets, price elasticity is impacted by brand preference and the percent of change in price. Pauwels et al. (2007) found that changes with a five percent threshold did not sway customer purchase decisions, yet changes at ten and twenty percent greatly influenced purchase decisions. Customer impact to price reductions further supports the hypothesis that price alone does not ensure perception of value. Specifically, if minimal price reductions do not stimulate customers to purchase a product, other variables of value utilized in conjunction with price reductions will entice customers to make a purchase (Table 3).

Table 3

Supermarket Price Strategies

Author	Price Strategy	Description
Ellickson and Misra, (2008)	Everyday Low Price (EDLP)	“Little reliance on promotional pricing strategies such as temporary price cuts. Prices are consistently low across the board, throughout all packaged food departments” (p.4)
	Promotional (Hi-Lo) Pricing	Expanded use of discounts, usually through manufacturer price reductions or special deals
Marinescu, Mihai, and Toma, (2010)	Hybrid EDLP/Hi-Lo	Combination of EDLP and Hi-Lo pricing strategies
	Fixed	Long term constant pricing
	Variable	Includes regular and promotional prices that fluctuate; this allows retailers to market more products to a wider customer base
	High	Utilized in non-competitive environments with high quality or prestige products

Kanagal (2013) suggested perceived value pricing highlights the importance of providing benefits and functionalities of price to the customer, yet pricing effectively for organizational value. Additionally, Kanagal indicated that perceived value pricing would best fit products and categories with a higher image of quality or luxury. Linking perceived value pricing to high quality would indicate that customers justify higher pricing of products or services when the perception of quality is present. By combining pricing and quality together, the two become predicting variables; that is, they are independent variables (Creswell, 2009) that affect customer loyalty.

Urbany, Kalapurakal, and Dickson (1996) conducted research to identify how customers react to searching for best prices; they referred to and defined the process as price search, or the effort extended in obtaining or comparing prices among competitive grocery stores. The research compiled data from 422 surveys of which 343 were usable. Additionally, the research indicated that many senior managers assume that price-searching customers are simply shopping for lowest advertised prices; however, their results indicated that customers also utilize sale circulars and in-store promotions for price sensitive items. Moreover, the authors posit that supermarkets benefit from highlighting a few discounts with greater depth in price reductions; this, along with a price strategy index that maintains a gap of less than five percent, is beneficial to gaining credit from customers for best prices. Depths of discounts vary by the frequency and length of the price reduction. Volpe and Li (2012) indicated that on average products are on sale between 25 and 50% of the time, and nearly half of all sale prices last longer than two weeks.

Sale prices, depth, frequency, and length of discounts influence price perceptions. Zielke (2011) indicated that "value for money differs from price perception" (p.355). The author suggests result of linking price with other indicators creates value in the mind of the customer. For example, a store that offers cheap products does not represent a value unless the store also offers product and service quality. Therefore, it is possible that when customers seek value, the goal is not merely to save money but also to attain quality, convenience, and/or service; thus, these variables should be treated independently.

Zielke (2011) suggests that saving money provides customers with positive emotion experience that enhances their perception of value. In fact, the Zielke's study indicated that while emotion reaction to low prices alone do not lead to perceived value, low price and quality do lead to a higher perception of value. Higher perception of value by supermarket customers will lead to increases in loyalty.

Quality

The American Society for Quality (ASQ.) defines quality as "a subjective term for which each person has his or her own definition" (ASQ website 2014, para. 4). This subjective nature justifies the need to clarify further the definition of quality and elucidate the relationship between quality and loyalty. In technical usage, quality includes: (a) the characteristics of a product or service that bear on its ability to satisfy stated or implied needs, and (b) a product or service free of deficiencies. Quality perceptions to customers are also price driven, which suggests that customers perceive quality differently based on the price of the product or service.

A Supermarket News article by Hamstra (2012), reported that a majority of supermarket customers surveyed were not willing to sacrifice quality for low price. This is a strong indicator that customers expect a level of quality regardless of the price of the product. The survey indicated that 64% of the participants described themselves as value seekers, yet 73% percent of customers participating in the survey choose not to sacrifice quality over price when shopping for groceries. Theoretically, perception of quality affects purchase decisions and thus, influences perceptions of quality and value. Hamstra's article brings the question of quality verses price to the forefront on discussion linking quality, price, and value together.

Within the retail food channel, quality is often referenced when products or services are evaluated by customer experience; this evaluation can occur while within the store or with products once taken home. Tracing back to early studies on the perception of value, Zeithaml (1988) identified that quality was a core aspect when customers considered value. Many studies indicate that customers define value differently (e.g., Zeithaml, 1988; Sanlier and Karakus, 2010; Hansen, Jensen, and Stubbe, 2011); therefore, marketing plans aimed at increasing perceptions of value should include multiple value drivers.

Does the fact that customers define value differently indicate that they also define quality differently? In fact, they do; for example, if customers base their quality expectations based on the prices of goods or services received, then low-priced products will have a low expectation of value, while higher-priced products have the perception of quality. Data from this study indicated that quality is more important to a customers' perception of value and loyalty than price. However, just as with price, quality alone does not guarantee a value perception or loyal behavior (James, 2012).

Based on study of over 400 surveys, Sanlier and Karakus (2010) found that supermarket customers compare quality and price more than 75% of the time when making purchase decisions. Further, 54% of respondents indicated that they read nutritional information labels when making purchase decisions. This statistic implies that customers also consider nutritional value when determining levels of quality. Pepe and Pepe (2012) indicated that value perceptions fluctuate at the point of sale based on the effectiveness and proper use of in-store messaging. Collectively, these studies indicate that actions taken within the store impact customer perception of and measurement of quality regardless of price. For example, if a customer shopping for bananas finds that they are overripe and of poor quality, lowering the price will not represent value since quality is sacrificed. However, if the customer needs bananas that are overripe, a lower price represents a value to that customer.

Hansen, Jensen, and Stubbe (2011) conducted a study to determine the level of supermarket customer satisfaction based on preferences such as quality. The study found that, in general, customers do not think traditional supermarkets offer high quality at low prices. If the theory holds true that lower quality results in low value perception, the perception of value within the survey group should have been lower as well. Further, the study indicated that low quality leads to lower value perception and, ultimately, lower overall satisfaction from customers. This supports the notion that low quality affects the perception of value and that low ratings on quality and value result in low satisfaction ratings. Thus, if a retailer offers a lower price on the same quality, the perception of value should increase. Likewise, offering higher quality at the same price should increase the perception of value and satisfaction. Overall satisfaction has a direct correlation to quality, price, and loyalty (Allaway, Huddleston, Whipple, and Ellinger, 2011).

James (2012) suggested that quality to customers is all perceived quality. This approach supports the linkage that perceived quality aligns with price; price, which is a pre-purchase action, influences perception of quality and, thus, affects the perception of value. If price alters pre-purchase perceptions, rationalization of final perceptions of quality and value for money can occur after consumption of the product, or completion of a service. Additionally, the author suggests that customers base value perceptions on pre expectations of value. However, if satisfaction affects perception of quality (Hansen et al., 2011), this would suggest that perceptions of quality are recognized post-purchase, which does not support James' suggestion.

James indicated that retailers like Wal-Mart purchase the lowest-cost products and aim to deliver value with a lower price, while retailers like Whole Foods buy top-quality products, charge higher prices, and tout the value derived from having higher-quality merchandise. The study is limited by its small sample size but does support the idea that quality has an independent effect on customer loyalty. Furthermore, low-price retailers will find that negligible switching cost and lack of loyalty-building variables, like quality, will result in a customer base that shops based on convenience, but does primary shopping at a higher-quality retailer.

Assortment/Store Brands

According the FMI website, in 2013 the average US supermarket had between 15,000 and 60,000 SKUs available to customers; the large range results from store size, presence/absence of specialty departments, and geography. This assortment includes a growing selection of store-branded products. Store brands, commonly referred to as "private brands" or "generic brands," are becoming more important to marketers that seek ways to offer similar products at lower price while maintaining quality standards. Store brands can provide distinct associations for customers and, therefore, management should ensure store brand decisions are meaningful and represent an organization's overall branding strategy (Kay, 2006). The association customers place with store brands to the organization offering them suggests that store brands should provide consistent quality and value. Furthermore, assortment and brand loyalty enhance customer loyalty to a particular store that carries preferred brands.

Barnett (2010) indicated that as the economy slowed, customers were increasingly turning to store brands as an alternative to higher-priced premium-branded products. Additionally, the author indicated that as supermarket management recognized this shift in customer preference, marketing more SKUs of store brands was touted as an option to save customers money. Rouan (2010) indicated that as customers were migrating to store brands, management also worked to improve store brand quality, which had the goal of increasing loyalty. For example, when customers tried store brands they would recognize that, for the price paid, the quality was sufficient to represent a value and constitute repeat purchases.

Brown (2013) reported that 73% of supermarket customers were comfortable purchasing store brands. By 2025, that number is expected to increase to 81%. From a customer perspective, store brands offer options for similar products at lower retails than their national brand equivalent. However, finding store-branded products on sale is often a daunting challenge. Volpe and Li (2012) indicated that store brand price reductions lack funding by manufacturers of national brands and, thus, they are not advertised with the same frequency or reduced in price by the same depth. However, store-branded products typically have lower retails than their national brand equivalent, making them an option for value at everyday retail prices.

Nenycz-Thiel and Romaniuk (2012) studied perceptions of value in nine brands of products and tested the hypothesis that perception of value for money links to private label products. They found that customers considered the private-branded products to positively impact value perception. Additionally, the study indicated that customer opinions of top-tier store brands were less favorable for value perceptions than their lower-priced alternatives. For example, retail supermarkets, like Kroger, offer high-tiered store brands in categories that do not compete with the lower-priced store brands. Kroger's website indicates that they now offer "Private Selection," which is a higher-tiered store brand. Additionally, Kroger also offers brands that include Kroger, Value Brand, Big K, Wholesome@Home, Fresh Selections, Home Sense, Comforts for Baby, and Simple Truth. Furthermore, Kroger's company website touts that they stand behind their store brands by offering customers a quality guarantee, ensuring that customers will be completely satisfied with their store brands. Additionally, a strong correlation exists between a customer perception of value with store brands and their overall perception of value for the store (Nenycz-Thiel and Romaniuk, 2012). This correlation indicates that if customers have a perception of value for the store shopped, they were more likely to view store brands as providing value. Store brands that offer quality and low price stand a good chance of providing a value to customers. Additionally, lower-priced store brands that still deliver high quality create opportunities for customer brand equity to the product.

Theoretically, store brands offer differentiation in products for supermarkets. Store-branded products are normally found only at stores under the same banner and are not available at competitors. For this reason, many retailers have focused on improving store brand quality, while expanding store brand SKUs across multiple categories. Furthermore, Nenycz-Thiel and Romaniuk (2012) suggest that as retailers work to improve quality in store brands at prices lower than national brands, customers are looking for food options that serve the same purpose without sacrificing quality. If this holds true, supermarkets and food channel retailers that provide quality in their store brand offerings will get more credit for value than those retailers that focus on store brands from a low price perspective alone.

In addition to offering store brands, overall product assortment, or overall variety, can influence a customer's choice of which location to shop. Briesch, Chintagunta and Fox (2009) conducted empirical research to identify how store assortment affects store selection by customers. Additionally, the study also viewed the impact that convenience, price, and feature advertising have on store location preference. The study indicated that brand choice was more impactful to store choice than having multiple brand offerings and multiple sizes per brand. This would indicate that customers that are loyal to a brand choose to shop locations that carry their brand of choice. The study also indicated that the assortment of store brands does not influence customer choice of stores shopped. However, this contradicts the study's findings that brand choices are more important than multiple brand offerings. Store brands are brand choices. For example, if a customer's brand choice happens to be a store brand, then the customer will choose a location based on a store brand over locations that offer branded products. In fact, Brown reported in FMI's 2013 customer study that differentiation strategies that utilize store brands are growing in popularity among supermarkets and food retailers. This growth may indicate that store brands are viewed by supermarket customers as representing a value.

Convenience

Convenience in its simplest form is having the ability to proceed with little effort. For retail customers, conveniences include stores that are easy to shop, multiple locations to shop, foods that are easy and ready to prepare, products that are available for shipment direct to home, and fast and easy checkout once in the store. Bagdare and Rajnish (2013) studied the retail experience of 676 participants from four different shopping malls in India. They found that store convenience has a positive association with customer experience within retail environments. A correlation analysis indicated that store convenience, followed by store atmosphere, relationship orientation, and store staff had the strongest association when customers rated overall experience. Their study supports the proposition that customers factor in store convenience when rating overall satisfaction. Additionally, with some customers rating convenience from a timesaving perspective, customers may also view convenience as having a positive or negative impact to perception of value and loyalty. Thus, questioning the relationship that convenience has, if any, in this study on loyalty is justified. Theoretically, this stream of thought implies that customers may include non-monetary cost variables such as convenience, when factoring in perceptions of value and loyalty.

Market saturation of organizations that offer similar products and services within the supermarket and food channel industry allows many customers the opportunity for convenient shopping. Jaravaza and Chitando (2013) conducted descriptive research with questionnaires, interviews, and observations to determine if store location influenced the store customers chose to patronize. The authors utilized convenience sampling for data collected from two supermarkets belonging to the same chain in different locations. Findings from the study indicated that traveling time, location convenience, proximity to ancillary outlets, and store visibility all influenced perception of value for participants of the study.

Market saturation can have positive effects to loyalty when the saturation comes from the same organization. For example, if looking at a major metropolitan market a retailer may benefit for having multiple locations for customers to shop. Retail chains may also view convenience as an overall strategy to capture sales. Wal-Mart and Dollar General Stores have multiple locations and, thus, provide a convenient shopping location for many customers. From a marketing perspective, convenient locations determine the merchandising mix of product offerings, the layout of the store, and the level of product assortments within each category. Moreover, from a customer perspective, store location may also affect the stores image and can be an influential deciding factor customers consider when selecting a store location to shop (Jaravaza and Chitando, 2013). With this, an assumption exists that customers placing high importance on store convenience may also decide if the most convenient store is the primary store or shopped for convenience alone. These findings are relevant to studies on customer perception of value. First, if multiple stores are equally convenient, customers may choose the one with the best value offering. Second, stores that offer value, yet are not conveniently located, may find that customers need a higher perception of value to justify the loss in convenience. Finally, when constructing strategies for value creation, supermarket management may benefit from having a convenient location over rivals that are in less desirable locations.

Linking value, convenience, and quality together has proven to be a successful strategy for some retailers within the food industry. For example, Slack (2013) reported on the success of Timewise, a two hundred and forty store convenience/grocery chain. Timewise provides fuel, national branded merchandise, clean stores, and fresh products with a focus on customer service and competitive, fair prices across major Texas markets. The author's report indicated that Timewise's strategy was not to be the lowest price option; rather, the company aims to provide the best value to customers. To accomplish this goal Timewise focused on quality, service, and having an experienced staff that offer good customer service. The author indicated that Timewise's strategy is working; company growth is outpacing rivals and it is poised to become a dominant retailer in operating markets.

Service

Service and customer satisfaction within the retail food channel varies from retailer to retailer. For this study, the question to answer surrounding service was: does service significantly influence loyalty? Some supermarkets consistently gain recognition for offering great service (e.g., Publix, Wegmans, and Whole Foods), while other food retailers (e.g., Wal-Mart, Dollar General, and Sav-A-Lot) are known more for low prices than for their service. Min (2010) indicated that customers link service to quality. Gentry and Kalliny (2012) suggest that service can influence store loyalty.

Linking service to quality and loyalty would suggest that customer service may be viewed differently based on the customer perception of what good service is, and may be an indicator of the supermarkets overall perception by customers shopping the store. Min (2010) indicated that when related to quality, the main indication of quality within many stores is customer service. Service quality within the retail food channel includes clean stores, quick service, friendly employees, product assortment, product availability, and price. These decisions can indicate which stores customers shop the most and which stores are occasional or convenience shopped.

Kimani, Kagira, Kendi, and Wawire (2012) indicated that quality of service, which includes reliability and responsiveness, is becoming an important aspect for retailers to consider in value and loyalty strategies. High quality service along with high quality products may allow a retailer to charge more for products than retailers with high quality or high quality service alone. The authors conducted the study within Kenyan supermarkets and utilized questionnaires to summarize three core factors of service:

tangibles, responsiveness, and reliability (Kimani et al., 2012). They suggested that the quality of customer service determines the level of satisfaction expressed by the customer. The authors utilized a five point rating scale to analyze 150 surveys for correlations of the identified variables of facility, brand value, and product price. Additionally, the authors indicated that a customer's assessment of product excellence influences overall satisfaction. Based on their findings, data from the study indicated that of the mixture of product and service attributes, retailers have more control over service quality. Moreover, the authors suggest that service is the only strategy to remain competitive and to create differentiation. This finding contrasts with Brown's (2013) FMI shopper-trends report. In fact, Brown indicated that price, quality, assortment, and convenience are more important to customers than service. Furthermore, James (2012) indicated that paradigm shifts away from service are present. However, notably, the literature reviews on customer service revealed that service does influence overall satisfaction. In turn, satisfaction in conjunction with other variables of value creates opportunities for enhancement of loyalty.

James (2012) indicated that paradigm shifts away from service are present; thus, research that builds on existing constructs of service and effect of service to value warrants consideration. James utilized descriptive statistics to analyze data from participants represented from a cross-functional sample of retail customers that had shopped within the past eight weeks. Participants for the study had shopped the following supermarkets: Whole Foods, Kroger, Winn-Dixie, Safeway, Supervalu, and Publix. James (2012) indicated that service is important to customer loyalty but, when related to value, perception of value from the customer is expressed post consumption. Thus, James's theory that service is less important to overall value perception fails to support service being an independent variable of loyalty. However, as with other variables of value and loyalty, when coupled with other independent variables, such as price and quality, service should be important to customers. James' (2012) theory on service indicates that, like convenience, service falls into Creswell's (2009) definition of mediating variables.

Anderson, Swaminathan, and Mehta (2013) collected data from 851 respondents and conducted multivariate data analysis to provide indicators of what drives customer satisfaction. They suggest that successful organizations tailor products, services, and shopping experiences to individual customers. They found that customers relate product assortment, store atmosphere, ease of purchase process, and effective conflict resolution as important attributes of service and, further, that customers expect complaints and concerns to be resolved to full satisfaction. Furthermore, Anderson et al. (2013) recommended that best in class retailers consider not telling customers the resolution, but asking the customer how the issue or a concern is best resolved. Customer resolution that fulfills individual expectations of full satisfaction suggests that organizations have employees trained and empowered to resolve varying levels of customer concerns.

The link of product assortment to service highlights how marketing programs affect customer service. Customers expect desired products to be available, yet too much assortment can create confusion and limit purchases (Anderson et al., 2013). The authors referred to Trader Joe's as having figured out how to meet customer demands for assortment. Trader Joe's matches assortment to demographics and, thus, on average offers 4,000 SKUs compared to traditional supermarkets that offer 50,000 or more (Anderson et al., 2013). Additionally, customers indicated that they appreciate and respond to a store atmosphere that is stimulating and attractive. These insights support Bagdare's (2013) study that indicated store convenience, followed by store atmosphere, relationship orientation, and store staff had the strongest association when customers rated overall experience. Interestingly, however, is the fact that Anderson et al. do not mention product quality as important to customer service.

Perception of Value

Zeithaml (1988) indicated that attributes related to customer's perception of value have a direct correlation to price and quality. Literature reviews conducted for this study indicated that price and quality are core elements needed in perception of value and loyalty. However, research also indicated that supermarket customers also respond to independent variables other than price and quality when rating value. Additionally, Zeithaml indicated that customers define value differently and, thus, strategies for value benefit when including multiple methods for adding value, and strategies for value creation must change as customer perceptions change.

Zeithaml (1988) utilized customer focus groups, in-depth customer interviews, and feedback from a corporate environment in an attempt to identify how customers perceive value. Zeithaml's qualitative study included probing, open-ended questions that, when coupled with interview data, provided speculations on how customers perceived value and which variables customers identified as core to value perception. Zeithaml found that the perception of value was idiosyncratic; thus, definitions were more personal to the individual or to a customer segment. Specifically, the participants in the study indicated that value was: (a) low price, (b) whatever customers want in products, (c) the quality customers get for the price paid, and (d) what customers get for price given (Zeithaml, 1988). Generally Zeithaml found that customers consider price to be the core element in deciding the perception of value. The importance that customers placed on price during the late eighties may explain why many early studies on value centered on low prices.

Specifically related to value within a retail supermarket setting, Kerin, et al. (1992) focused on attributes of value that were within the store itself and the specific attributes that internal store management could affect. Kerin, et al.'s research utilized focus groups, and conducted field studies via telephone interviews to identify and measure perception of value. Traditionally, focus groups were a starting point for gathering general opinions from customers. Kerin, et al.'s research on the effects that store experience has on value advanced Zeithaml's earlier research. First, the study identified that customers relate price and quality to value. Second, the study identified that when the customer's shopping experience was positive, positive impacts to customer perception of price and quality followed. Therefore, variety, cleanliness, service, speed of check out, and friendly check cashing policies enhanced the shopping experience, which, in turn, had a direct correlation to price and quality ratings (Kerin et al., 1992).

Research on the perception of value within the supermarket industry from the 1990s through the middle 2000s was limited. However, a study on value by Yu (2006) provided a significant link between gaps in early studies on value. Yu's (2006) qualitative study on value was in mass merchandise and department stores. Mass merchandise stores, also referred to as supercenter stores, offer many of the same products and services as supermarkets; thus, they share many of the same customers as supermarkets. Yu's close to four hundred usable surveys indicated that customers from the mass merchandise segment had higher perceptions on acquisition value (the outcome of goods or services in exchange for cost/sacrifice) than customers shopping department stores. Yu's research followed a consumption paradigm that incorporated rational and irrational customer behaviors, which in turn supports Yu's theory that the outcome of customer behavior related to consumption is customer perceived value. Yu's study added knowledge to an area of prior research that, as indicated earlier, was lacking in definition and practicality. Specifically, Yu's (2006) research identified that in addition to price, customers were beginning to seek value in the form of convenience, service, assortment, and emotional stimulation from store atmosphere. With Yu's study peering into customer behavior in a retail setting, future studies conducted on value could build upon the perception that value encompassed more than price and quality (summarized in Table 4).

Frugality while shopping at the supermarket led customers to stretch their food dollars; as a result, unit volume over the last year in supermarkets is flat (Hamstra et al., 2013). Brown's 2013 FMI customer survey indicated customers average just over two trips per week to the supermarket and spent just over twenty-seven dollars per trip.

Additionally, Brown indicated that 48 % of U.S. supermarket customers have accepted living with less; a figure expected to rise to 53 % by the year 2025. Frugality-fueled competitive rivalry hastened the need for supermarkets to offer the best value to customers. Hence, a flurry of research and desire to better define value and perception of value arose as opportunities for marketers. Customer perceptions of value and loyalty are important to marketers and organizational profitability (e.g., Zeithaml, 1988; Kerin, et al. 1992; Yu, 2006).

Table 4

Perception of Value

Authors	Findings
Zeithaml (1988)	The study concluded, “perceived value is the customer’s overall assessment of the utility of a product based mainly on price, but includes quality.
Kerin, Jain, and Howard (1992)	Perception of value from internally controllable events within the retail environment includes more than price; internally, perception of value includes the effect that store-shopping experience has on perception of value.
Jenkins (2010)	Customized store loyalty programs add to a customer’s perception of value.
Dobre, Dragomir, and Isac (2011)	Perception of value is lower when price strategies do not account for quality; may result in customers that have a lower overall recognition of value.
Tu, Li, and Chih (2011)	Perception of value relates to quality of service, or services offered.
Chang and Dibb (2012)	Perception of value for supermarket customers may include emerging shopping contexts, such as online shopping and delivery.
Hassan (2012)	Customer perception of value can be seen as a more personal and holistic view of quality.
Pepe and Pepe (2012)	Customer perception of value swayed by in store point of sale marketing.
Brown, (2013)	Price, quality, assortment, convenience, experience, and service are important to value when shopping supermarkets.

Zeithaml (1988) indicated that customers overall perception of value is what customers receive and what is given (Table 4). A trade off that occurs in value transactions has many variables which have different meanings to each individual. For example, some customers may seek better service or quality than other customers or feel that low prices relate to a perception of value. There is significance to the individualistic component existing in customer perception of value. For example, customers having an individual definition of value support the theory that combining independent variables may increase customer perception of value. This would indicate that having more independent variables of value available should meet the demands of more customers, thus, increasing the percentage of customers perceiving value.

James (2012) suggested that value perceptions have become one of the more compelling metrics utilized in marketing strategies. The author's descriptive research utilized US customer surveys attained through online collection methods. James's research questions sought to define how customers perceive value, which value dimensions predict performance, and what influences that value have to customer loyalty. Additionally, James indicated that customer satisfaction relates to post-purchase feelings and emotions from customers; thus, James's question that value perceptions are based off of customer satisfaction are also a post-behavior demonstrated by customers. Furthermore, James's hypothesis is that customer perception of value has a stronger relationship to loyalty than does customer satisfaction.

James supported his research with data based on surveys conducted with airline customers. While the airline segment may be closer defined as a service industry versus a supermarket, value perceptions and related service to value behaviors from customers justifies review. First, service is an independent variable of the perception of value. Second, importance placed by marketers on the perception of value across multiple industries suggests that as customers demand more value, marketers are listening. From the customer perspective, James's (2012) research indicates that customers experience hedonic value (feeling pleased about the shopping experience) and a utilitarian value (means to an end) approach when perceiving value or satisfaction leading to value perceptions. Additionally, James's findings support his hypothesis that value has more relevance to loyalty than customer satisfaction.

Žemgulienė (2013) conducted research on store image within a retail household goods store. The study utilized survey data collected directly from one hundred ninety seven customers as they exited a household goods retailer. Žemgulienė indicated that store image influences the level of value perception, and thus has an impact on customer's willingness to pay a premium price. Price is a core independent variable in customer perception of value. If Žemgulienė's assumptions on store image were true, this would indicate that store image is also an independent variable of price. Additionally, Žemgulienė's study sought to determine if gender and income influenced perceived merchandise value. Using a Likert-type scale, Žemgulienė (2013) analyzed the variable of perceived merchandise value; the variable of perceived willingness to pay a higher price was measured using a dichotomous scale. Results of the study were mixed; first, store image was identified as being impactful to perception of merchandise value; second, gender did not impact perceptions of value; however, as expected, customers that were identified as higher income were more likely to pay higher prices relative to value perceptions. Furthermore, the study indicated that although customers recognize store image as a benefit, having to pay more for this benefit lacked support. The study's findings support what Creswell (2009) defines as intervening variables (those variables that stand between independent and dependent variables, and mediate the effects an independent variable has to an independent variable). Žemgulienė's study provides management considering store image strategies for value with valuable insights. When combined with other variables, store image may be a viable option for supermarkets in constructing strategies for increasing value perception.

Store image can have value implications to customers across a broad range of business. For example, in a study of customer perceptions of value within the retail banking industry of Lithuania, Ivanauskienė, Auruškevičienė, Škudienė, and Nedzinskas (2012) examined three main value dimensions: (a) emotional value, (b) social value, and (c) functional value. Results from 200 survey participants indicated that emotional value rated the highest. Additionally, Ivanauskienė et al. indicated that customers still feeling the impacts of a slow economy and un-trust within the banking industry drove emotional value. From a customer value perspective, the importance of trust may closely align with customer perception of risk, which is also linked to value perceptions. Furthermore, positive atmospheres within the retail banking industry that promote emotional value also supports the theory that store image and store atmosphere impact perception of value. This study indicates the importance of value to retail customers and that, from a customer's perspective; value has many meanings and is ever changing.

Brown's (2013) customer-trends report presents a broad view of customer value behaviors related to the supermarket industry. Brown reported that FMI utilized industry data from fifteen hundred US supermarket shoppers via a custom online survey and in-depth interviews with retail supermarket executives. Brown's FMI report indicated that customers are value savvy and, now more than ever before, customer behavior dictates that supermarket management employ customer centric strategies that deliver value. Brown adds another complexity to the challenge facing supermarkets, changing demographics. Although not a new concept, many markets are seeing vast changes in customer demographics. With perception of value being an individualistic component (Hassan, 2012), changing demographics may indicate that more independent variables of value need identified.

Expansions of non-traditional brick-and-mortar supermarkets also support the theory that changing demographics demands changing venues for delivering value. For example, dollar stores and supercenter stores drove the majority of food-retailing expansions since 1995 (Brown, 2013). Adding to the shift away from growth in traditional supermarkets, convenience stores are adding food variety in an attempt to make convenience a value to customers. Collectively, these pressures and inter-channel competitive threats highlight the importance supermarkets have in delivering value to customers. Supermarkets must focus on one or more of the following customer traffic drivers: (a) price and value, (b) quality, (c) assortment, (d) convenience, and (e) overall experience (Brown, 2013). Of the five traffic drivers, Brown indicated that price and value lead the way with customer decisions of where to shop for groceries.

With quality ranking high on the scale to perception of value, customers view value and quality as similar constructs. Rajh (2012) conducted research that compared the structural models of perceived value. In the study, Rajh proposed three models of value: (a) direct perceived value and cost effect on perceived value, (b) direct perceived risk effect on perceived value, and (c) measuring the effect of perceived quality and cost on perceived value. Hence, Rajh posits that perceived value is regarded as ratio of perceived quality to perceived cost. Rajh's assumptions on quality are supported by Min (2010) and Hassan (2012). Additionally, customer trends (Brown, 2013) indicate that perceived quality has risen to levels of perceived cost. This parity of quality and price support the need for marketers to offer a balance of variables linked to value with price and quality being a constant due to customer demand.

Rajh (2012) indicated that, from a customer's perspective, price includes non-monetary costs, such as time spent and emotional and physical conflicts, and variable monetary costs, such as the costs of fuel, transportation, and/or delivery. Additionally, Rajh indicated that the positive correlation between quality and value provides combinations more desirable than the negative correlation between perceived cost and perceived value. Indeed, this supports the notion that improvements in quality where price can remain constant may provide more sustainable increases in perceived value than fluctuations in pricing. Rajh's research utilized a five-point Likert-type scale to evaluate just over one thousand Croatian customers within a retail setting. The results indicated that the customer's perception of value is rooted in the risk/reward concept. The risk/reward justification further indicates that customer response to value may be best expressed when multiple independent variables are presented. For example, if price represents as risk, and risk remains neutral, adding rewards would minimize the risk.

Loyalty

Hassan (2012) indicated that increasing a store's loyal customer base provides opportunities for enhanced profitability and business sustainability, a key component to a supermarket's organizational success. Hassan's study, conducted in the United Kingdom's supermarket industry, provided insights into how supermarket customers perceive value and the importance value has to loyalty. Hassan's qualitative study utilized mini-depth interviews as the approach of collecting and analyzing the data. Hassan's (2012) findings indicated that for customers value proposition is a widely-used concept, but lacks specific definition. Additionally, Hassan provided valuable insights to marketers by identifying that customers perceive value differently and, thus, respond to more than one attribute of value.

Allaway, Huddleston, Whipple, and Ellinger (2011) indicated that in addition to value, quality within supermarkets plays a key role in customers willingness to patronize specific stores. Furthermore, the author's nine-state survey identified core attributes to customer patronage. The basic requirements customers expected from their favorite supermarket included service, product assortment, and quality. Allaway et al. (2011) utilized a Likert-type scale to evaluate 659 usable surveys. Included in the survey results, the following customer comments on product quality were shared: "the products at this store are of high quality, this store has good quality merchandise, and I shop this store because its products are superior to its competitors" (Allaway et al., 2011, p. 193).

Comments such as these imply that when rating quality, customers compare quality based on availability of products or services compared. For example, if a local supermarket has limited competition and a supermarket retailer known for high quality enters the market, customers can then compare and contrast quality between the supermarkets.

Customers that compare quality offerings and find consistent differences in quality will patronize the store with the best quality more and, thus, build equity to a brand or retailer, which Allaway et al. (2011) suggested is essential to loyalty. Additionally, survey participants revealed that supermarkets like Publix and Safeway, which are known for quality, benefit by frequent shops more than retailers that rely on fanaticism fueled by low-price schemes. Significant to customer's perception of value, these findings support the theory that those retailers with high quality may have a higher loyal customer base than those retailers that use price alone. Furthermore, once establishing high quality to customers, low-price retailers that enter the market can face challenges to build a loyal customer base on price alone. To compliment price, marketers often turn to the core elements of the marketing mix: price, product, placement, and promotion (commonly referred to as the 4ps of marketing).

Li (2011) combined the theories of marketing mix (price, product, placement, and promotion) with perceived value (perceived quality and sacrifice) and relationship quality (customer satisfaction, trust, and commitment) to determine their effect on customer loyalty. Li's study conducted in Kaohsiung City, Taiwan, utilized a four-part questionnaire that included customer characteristics, marketing mix and perceived quality, sacrifice, and relationship quality. The setting for Li's study consisted of a

Carrefour hypermarket, Hanshin department store, 7-Eleven convenience, and Costco. Li (2011) posed the following research questions: (a) What is the relationship between marketing mix and customer loyalty? (b) What is the relationship between customer perceived value and customer loyalty? (c) What is the relationship between marketing mix, customer perceived value, and customer loyalty? (d) What is the relationship between marketing mix, customer perceived value, relationship quality and customer loyalty? Li indicated that quality and price deals directly influenced all the independent variables of customer loyalty, word-of-mouth communication, price insensitivity, and purchase intention. Therefore, Li suggested that marketing mix, customer perceived value and the relationship quality construct of customer satisfaction, trust, and commitment is essential to customer loyalty. Additionally, Li indicated that customers shop based on factors outside of marketing mix and perceived value. Customers with limited availability meet this criterion.

Mittal and Gupta (2012) indicated that customers patronize stores due to convenience, store atmosphere, and customer experience. Mittal and Gupta's descriptive research conducted on retail grocery customers sought to determine if customer experience management affected retail patronage. The survey data consisted of personal customer interviews; data validation consisted from consulting five academicians and five retail experts. Mittal and Gupta found that aesthetics (store cleanliness, appearance, quality, branded and store-branded products, and store layout) were attributes that customers related to a positive store experience. Aesthetics are independent variables of value. For example, branded and store branded products align with Kerin, et al's (1992) assessment of assortment, store cleanliness, and appearance (Yu, 2006). Mittal and Gupta support research indicating the existence of the relationship between the variables of product assortment and quality, both identified as independent variables for perception of value.

Summary

Price is a core predictor of customer loyalty; yet, Dobre, Dragomir, & Isac (2011) indicated that price alone does not represent a perception of value that leads to loyalty. Marketers strive to maintain a balance of price and promotion that represents a value to customers while maintaining profitability. In essence, customers understand price as the monetary cost of attaining desired products or services; thus, when adding quality, service, or convenience, price can be an effective tool to increase perception of value and to build customer loyalty.

The 2013 FMI customer trends report by Brown revealed that supermarket customers are price savvy; data from the report indicated that supermarket customers would select store locations based on price, followed by quality, convenience, and then assortment. The importance that price has to customers implies that if using price as the main value driver, prices will be recognized by customers as being worth sacrificing service, quality, or assortment. Likewise, for those retailers with higher prices that utilize service, quality, or assortment for the core value driver, those variables will be worth the monetary sacrificing.

Collectively, multiple studies indicated that price is a primary influence on overall perceptions of value. The challenge for food channel marketers is that customer expectations for lower prices remain constant while costs from manufacturers continue to increase. As indicated in the 2013 CPI, many categories within the retail-food channel have been subject to inflation. Inflation, when flowing through to store-level product prices, affects the customer's perception of value if the customer pays more for the same quality. Marinescu, Mihai, and Toma (2010) indicated that pricing strategies across retail-food channels benefit from multiple pricing methods designed to meet multiple customer expectations. In addition to employing multiple pricing strategies, many retailers are also turning to quality as a means to justify pricing decisions.

Hamstra (2012) reported that a majority of supermarket customers surveyed were not willing to sacrifice quality for low price. Thus, supermarkets with higher quality are able to enhance customer value perception by increasing depth and breadth of promotional discounts; however, supermarkets with lower quality have to continue to lower prices to make the quality seem more value added. Sanlier and Karakus (2010) identified that supermarket customers compare quality and price over 75% of the time when making purchase decisions.

Brown's (2013) FMI customer study also indicates that customers rank price and quality highest of all variables linked to value and loyalty. Customers understand the link between price and quality; therefore, organizations with a goal of utilizing quality for value likely have two options: (a) improve quality of the product while keeping price constant, or (b) reduce the price customers pay for the product while keeping the quality constant. One method many supermarket retailers turn to for balancing price and quality is expansion of store/private brand assortments.

Like price, quality is a core predictor of loyalty. However, there is a notable difference in quality and price when perceived value is measured. Perhaps the most profound support for this relationship was iterated by Hamstra's (2012) report that indicated that a majority of supermarket customers surveyed are not willing to sacrifice quality for low price. Adding to this, Brown's (2013) FMI customer study indicated that quality ranks high as an independent variable of value and is nearly as important as price. Furthermore, Allaway et al. (2011) and Hansen et al. (2011) indicated that quality, not price, leads to loyal shopping behavior and greater overall customer satisfaction.

Store convenience has a positive association with customer experience within retail environments (Bagdare, 2013). Simply put, having a convenient location to shop can outweigh factors of price and quality. The popularity and abundance of convenience stores provides an example of why convenience is important to customers. Convenience could fall into the category of a mediating variable rather than an independent variable concerning value and loyalty. Creswell (2009) suggest that mediating variables are variables that when combined with other variables strengthen independent variables.

Quality customer service is an important aspect to total customer satisfaction. In theory, customer satisfaction enhances opportunities for customer loyalty. While service and satisfaction are important, James (2012) indicated that paradigm shifts away from service are present and, when related to perception of value, service ranks low. Noteworthy in studies on service, Anderson et al. (2013) indicated store atmosphere influences customer satisfaction.

Studies indicated that as perception of value increases, loyalty increases (Allaway et al., 2011). Increasing a store's loyal-customer base can provide opportunities for enhanced profitability and business sustainability (Jenkins 2010, Gentry & Kalliny 2012), and is a key component to a supermarket's organizational success (Seenivasan, 2011, Hassan, 2012). Supermarket customers seek more value, and more ways to get value, from their food purchases (Min, 2010). In their quest to find more value, product similarity, price parity, and convenience have made switching cost negligible to supermarket customers. Finally, independent variables that lead to perception of value are changing and customer perceptions of value and drivers of quality have also changed. In sum, value has a significant effect on loyalty within the supermarket industry. Customers are seeking more value and, thus, are becoming value savvy. Customer demand for value and market saturation within the retail food channel has many supermarket retailers searching for effective strategies for getting credit for value. Although price still reins high among customers when referencing value, quality, convenience, service, and assortment are also included in a customer's perception of value.

CHAPTER 3

METHODOLOGY

Building upon similar earlier studies (e.g., Woodall, 2009) and using a quantitative approach, this study tested the hypotheses that aspects of value (price, quality, service, convenience, and assortment) significantly affect loyalty among supermarket customers in Atlanta, GA. Philosophically, quantitative methods seek to determine causes and effects and, thus, Creswell (2009) noted that the worldview for this type of research is postpositivists.

Research Design

This study provided answers to several core questions that relate to customer behavior. Quantitative methods were used because causal relationships are investigated among a series of predictor and response variables. Further, such methods permit one to look for the existence of moderating variables that contribute support for or reject proposed hypotheses (e.g., Creswell, 2009). This study identified the level of contribution between independent variables of value to loyalty. The methods employed in this study, outlined below, are in line with similar studies (e.g., Li, 2011).

Research Methodology

The research methodology was non-experimental. Data were collected from surveys administered to customers within the Survey Monkey customer audience database. Survey questions, adapted from Woodall (2009), were built around independent variables of value (price, quality, service, convenience, and assortment), as well as value itself, and how, price, quality, service, convenience, and assortment affect loyalty.

Participants answered questions on a five point Likert-type scale, which had answer choices that range from strongly disagrees through strongly agrees with the statement.

Research Limitations

As a result of demographic patterns of Internet usage, inferential limits existed when interpreting results from this study. Survey Monkey (2013) indicated that some audience participation comes from younger, Internet-savvy members with higher incomes than the U.S. averages. Thus, to reduce this bias, participants that were below age 21, over age 65, those indicating they were not the primary shopper in the household, and those who had not shopped for groceries in the past two weeks were excluded. However, the possibility existed for higher than average Internet users to still be the primary supermarket shopper and, thus, become a valid participant in a survey process. Moreover, supermarket customers without Internet access were not included in the survey process. Response rate and cost of attaining surveys needed to complete the research were additional limitations considered.

Research Assumptions

A primary assumption of the study was that the Survey Monkey databases of participants in the Atlanta, GA area were sufficient to meet sample size requirements for statistical analysis. Additionally, it was assumed that participants answered questions based on individual experience and that those responses provided data sets needed to infer statistical relevance when generalized to the overall population. Further, it was assumed that the chosen technique for conducting statistical testing was sufficient to determine outcomes of posed hypotheses. Finally, there was an assumption of data integrity from all data collected by Survey Monkey and that data utilized excluded any connection to personal traits that may create bias or prejudice to any participant or group of participants.

Population

The sampled population for this study came from Atlanta, GA, which, according to 2010 U.S. census data, has a population of 420,000. Targeted participants for the survey were primary supermarket customers (those customers that conducted the majority of household grocery shopping) between the ages of 21 and 65 that had shopped for groceries within the prior two weeks. The criterion was similar to standards adopted by Brown (2013) for customer research while providing population parameters that are generalizable to larger populations. Fowler (2013) suggested narrowing the sample size to match the sample frame versus a percentage of the population. Thus, the criterion described in the sample frame of participants reduced the Atlanta, GA participant pool to 297,000. To adequately represent this reduced-sample pool with a confidence level of 95% and a margin of error of +/-5%, 384 survey responses were needed. Subjectivity and the possibility that perception of value may be viewed differently resulted in the risk of Type I (rejection of a true hypothesis) or Type II errors (accepting a false hypothesis). To minimize Type I errors, the statistical level of significance, α, was set at 0.05 for all statistical tests.

Sample Strategy

The data collection strategy used in this study involved using Survey Monkey. The targeted participants for this study existed within the Survey Monkey audience database. The sample consisted of data collection from customers residing within zip codes surrounding Atlanta, GA. In an attempt to have the sample frame provide generalizable data, the sample frame reflected U.S. averages based on 2010 U.S. census data. The research targeted primary supermarket customers between the ages of 21 and 65 to segregate the sample further.

The data source consisted of primary data collected from customers that met criteria for the study. Survey questions solicited responses from customers on value and loyalty to their primary and secondary supermarket shopped. Furthermore, these criterions helped avoid bias toward more active online users or survey takers. Anderson (2014) indicated that ensuring the sampled frame represents the population from which drawing the sample ensures validity when inferring statistics about the population. Regression techniques used on the data collected from the sample determined how independent variables of value contributed to loyalty and tested the hypotheses posed on customer loyalty.

Data Collection

Data were collected from an electronic email invite through Survey Monkey. The sample size was based on the number of finished responses required, the response rates of survey respondents, and the availability of respondents who meet the inclusion criteria (Survey Monkey, 2013). The instrument design included an introduction to the survey conveying the research purpose and consent for the researcher to include individual responses in the data analysis. The instrument captured personal information such as gender and age to ensure that the sample is representative of U.S. averages. Personal data were not linked to a participant's identity.

Instrument

The instrument used in this study was an adaptation from Woodall's (2009) study. Additionally, to ensure validity of the instrument, the researcher conducted a field test in accordance with Capella University's guidelines titled *Supplemental Form B, Field Test Procedure & Results.* The Capella University field test forms and results accompanied the submission to Capella's IRB for final instrument approval.

Validity and Reliability

Presenting valid and reliable results is important to enhance acceptance of and applicability of results, implications, and recommendations. Gronhaug and Ghauri (2010) indicated internal validity refers to the extent the researcher can infer a causal relationship exists between identified variables. Woodall's (2009) original study instrument tested for reliability utilizing internal consistency methods by pairing specific question responses to the overall sum of loyalty factors. Specifically, Woodall's questions regarding assortment, low price, location, and frequent shopper programs were tested to validate the sum of total loyalty.

Moreover, Woodall (2009) ensured validity by using concurrent criterion validity from demographic and psychographic variables gathered from questionnaires. Thanasegaran (2009) described criterion-oriented validity as validity the researcher seeks when predicting a purposed criterion or concurrent validity for scores attained at essentially the same time. Woodall (2009) followed this path by validating information gathered through surveys while concurrently conducting qualitative questionnaires. Woodall's validity and reliability coupled with the researcher's field test provide sufficient justification that the instrument used in this study is valid and reliable. Additionally, the author utilized Chronbach's alpha to measure data from the current survey to ensure that all the survey items hold together as a group and that participants respond the same to questions across the survey instrument. Urdan (2010) indicated that when a "set of items has an alpha level of .70 or higher, it is considered acceptably reliable" (p. 178).

Field Test

The instrument used in this study was modified after soliciting feedback from three marketing industry CEOs that all hold doctorates in related marketing. All participants offered suggestions for improvement, which were incorporated into the instrument. Modifications included adding the "other" option to a few questions, including Pharmacy as a reason to shop a particular supermarket, adding sustainability practices as an option for patronizing a specific supermarket, and defining the agreement of choices on the measurement scale. The field test ensured validity and reliability of the instrument and thus, better prepared the instrument for customer research.

Data Analysis

The data analysis technique chosen for this study was ordinary least squares regression (OLS). All statistical analyses were performed in Statistical Package for the

Social Science v22.0 (SPSS). After collected, data sets were used to create scatterplots with a regression line, also referred to by Urdan (2010) as the line of least squares. Urdan indicated that the line of least squares represents the smallest sum of squared deviations or sum of squares from the line and, thus, represents the predictor values of y at any given x value. Additionally, data was reviewed to determine the level of contribution between value and loyalty. Scatterplots with regression lines for each independent variable and scatterplots with combined independent variables indicated what Creswell (2009) referred to as moderating variables. Creswell indicated that moderating variables are those independent variables that when multiplied together by the researcher affects the strength and relationship between independent and dependent variables.

Urdan (2010) suggested using OLS to predict the outcome of one dependent variable when given one or more independent variables. Use of ordinal regression techniques determined each independent variable’s statistically significant contribution to the dependent variable. Quantitative research using ordinal regression techniques provided the best fit to answer the research questions for this study. The statistical significance (or lack of) identified through ordinal regression supported the null or alternative hypotheses presented in this study. All data analyses were conducted using Statistical Package for Social Science 22.0 software (SPSS).

Hypotheses

The following research questions and hypothesis were addressed in this study.

RQ1. To what extent do the independent variables of value (price, quality, service, convenience, and assortment) have a significant contribution on loyalty of supermarket customers in Atlanta, GA?

H1a: Price has a significant contribution to customer loyalty in the supermarket industry.

H1o: Price does not have a significant contribution to customer loyalty in the supermarket industry.

H2a: Quality has a significant contribution to customer loyalty in the supermarket industry.

H2o: Quality does not have a significant contribution to customer loyalty in the supermarket industry.

H3a: Service has a significant contribution to customer loyalty in the supermarket industry.

H3o: Service does not have a significant contribution to customer loyalty in the supermarket industry.

H4a: Convenience has a significant contribution to customer loyalty in the supermarket industry.

H4o: Convenience does not have a significant contribution to customer loyalty in the supermarket industry.

H5a: Product assortment has a significant contribution to customer loyalty in the supermarket industry.

H5o: Product assortment does not have a significant contribution to customer loyalty in the supermarket industry.

H6a: Customer value has a significant contribution to loyalty in the supermarket industry.

H6o: Customer value does not have a significant contribution to loyalty in the supermarket industry.

RQ2. To what extent does a store's atmosphere/environment have a significant contribution on loyalty of supermarket customers in Atlanta, GA?

H7a: Store atmosphere/environment has a significant contribution to loyalty in the supermarket industry.

H7o: Store atmosphere/environment does not have a significant contribution to loyalty in the supermarket industry.

RQ3. To what extent do store loyalty programs contribute to loyalty of supermarket customers in Atlanta, GA?

H8a: Loyalty cards/supporting loyalty programs have a significant contribution to loyalty in the supermarket industry.

H8o: Loyalty cards/supporting loyalty programs does not have a significant contribution to loyalty in the supermarket industry.

RQ4. To what extent do the presence of store private brands contribute to loyalty for supermarket customers in Atlanta, GA?

H9a: Private brands have a significant contribution to loyalty in the supermarket industry.

H9o: Private brands do not have a significant contribution to loyalty in the supermarket industry.

RQ5. To what extent does the quality and freshness of perishable foods contribute to loyalty for supermarket customers in Atlanta, GA?

H10a: High quality perishable foods have a significant contribution to loyalty in the supermarket industry.

H10o: High quality perishable foods do not have a significant contribution to loyalty in the supermarket industry.

Ethical Considerations

Conducting research requires concern for maintaining ethical standards. To ensure protection of participants, data from the surveys were utilized in aggregate; therefore data from individual surveys remain anonymous. The survey did not exploit or ask harmful questions. Ethical standards for reporting results of collected and analyzed data will be maintained regardless of the outcomes and impact to posed hypotheses. Additionally, the researcher will maintain data integrity when reporting or publishing results of this study.

Participants for the study were reached through Survey Monkey; thus, participant names are excluded on the completed surveys. Participants were provided a consent form with details and purpose of the study and provided the researcher’s contact information. Participants had the option to opt out of the survey at any time. The survey instrument was delivered to participants via a secure Uniform Resource Locator (URL).

CHAPTER 4. RESULTS

Introduction

The purpose of this chapter is to provide the results of the research derived from data collected from supermarket consumers in Atlanta, GA. Included in this chapter is a description of the sample, data analysis summary used to test research questions, and a summary of the hypothesis. The research design for this study was quantitative non-experimental. Quantitative research allowed for the testing and measurement of independent variables looking for the existence of contributing factors that supported or rejected the proposed hypotheses.

The research methodology for this study was non-experimental. Survey questions were built around the independent variables of value; price, quality, service, convenience, and assortment, as well as value itself, and how price, quality, service, convenience, and assortment contribute to the dependent variable of loyalty. The data analysis technique chosen for this study was regression. SPSS v22 software was used to analyze the data in this study. Regression techniques were used to determine which independent variables had a statistically significant contribution to the change in the dependent variable of loyalty. Quantitative research using regression techniques provided the best fit to answer the research questions for this study. The statistical significance (or lack of) identified through regression tested the null or alternative hypotheses presented in this study. Prior to analyzing the research questions presented in this study, the data collected from surveys were screened for completeness and accuracy to ensure data integrity. Thus, from the surveys collected (n = 426), a filtered total of n = 354 surveys provided data for analysis to answer posed research questions and hypotheses.

Description of the Sample

The sampled population for this study came from Atlanta, GA. As described in the Methods, above, the targeted sample size was n = 384. Prior to analyzing the research questions presented in this study, surveys were screened for completeness and accuracy to ensure data integrity. In total, 426 surveys were collected, which yielded a final filtered total of n = 354. The majority of the 354 total participants were female (302, 85%) and were between 50 and 65 years old (223, 63%). Many of the participants had two people living in their household (155, 44%), but most did not have children between 1 and 15 years old (290, 82%). Most of the participants did their shopping in a grocery store (280, 79%) (Table 5).

Table 5

Frequencies and Percentages for Participant Demographics

Demographic	*n*	%
Gender		
Female	302	85
Male	52	15
Age		
21-34	46	13
35-49	85	24
50-65	233	63
People living in the household		
0	21	6
1	94	27
2	155	44
3	47	13
4	37	11
Children (age 1 to 15) in the household		
No	290	82
Yes	64	18
Store format shopped at the most		
Club store	7	2
Dollar store	4	1
Grocery store	280	79
Online	12	3
Super-center	44	12
Other	7	2

The most frequently listed primary store was Kroger (159, 45%) followed by Publix (116, 33%). For secondary stores, Publix (74, 21%) and Kroger (65, 18%) were also the top two responses. Many participants did between 61 and 80% of the shopping at their primary store (152, 43%) and half of the participants spent less than 20% at their secondary store (176, 50%). Many participants take one (151, 43%) or two (114, 32%) trips to their primary store per week while the majority took only one trip to their secondary store per week (223, 63%) (Table 6).

Table 6

Frequencies and Percentages for Primary and Secondary Store Characteristics

Characteristic	Primary Store		Secondary Store	
	n	%	*n*	%
Store				
Aldi	7	2	13	4
BJ's Warehouse	2	1	3	1
Costco	5	1	23	7
Dollar General	-	-	3	1
Farmer's Market	-	-	9	3
Fresh Market	-	-	3	1
Food Depot	4	1	3	1
Ingles	11	3	12	3
Kroger	159	45	65	18
NA	3	1	21	6
Publix	116	33	74	21
Sam's Club	2	1	11	3
Target	0	0	15	4
Trader Joe's	3	1	9	3
Walmart	33	9	48	14
Whole Foods	4	0	8	2
Other	5	1	37	10
Shopping percentage				
0-20	3	1	176	50
21-40	22	6	123	35
41-60	73	21	28	8
61-80	152	43	5	1
Greater than 80	104	29	-	-
NA	-	-	22	5
Trips per week made to store				
0	46	13	71	20
1	151	43	223	63
2	114	32	40	11
3	43	12	12	3
4	-	-	2	1
Spend per visit				
$0-20	11	3	55	16
$21-50	101	29	157	44
$51-80	99	28	62	18
$81-100	72	20	45	13
$101 or above	71	20	11	3

The majority of the participants did not select their primary store based on the store loyalty programs (264, 75%). However, the majority of the participants indicated that they do receive specific promotions from loyalty reward cards (201, 57%). Changes in the economy did not affect the loyalty for the majority of the participants (264, 75%) nor do sustainability/environmental policies (236, 67%) (Table 7).

Table 7

Frequencies and Percentages for Loyalty Program Characteristics

Characteristic	*n*	%
Choose store based on loyalty program		
No	264	75
Unsure	17	5
Yes	73	21
Receive specific promotions from loyalty rewards card		
No	131	37
Unsure	21	6
Yes	201	57
Changes in the economy affected loyalty to primary or secondary store		
No	264	75
Unsure	12	3
Yes	78	22
Sustainability/environmental policy affect your loyalty to primary or secondary store		
No	236	67
Unsure	34	10
Yes	84	24

A total of 11 different scales were created from the group of Likert-type scale questions answered by the participants. The list of questions associated with each scale is presented in Appendix C. Cronbach alpha reliability was conducted on each of the scales.

Reliability was slightly lower for price, quality, service, and convenience than the ideally accepted rate of 0.70 or higher. However, the reliability for private brands and high quality foods was greater than 0.70 (Table 8). Store assortment, store environment, loyalty programs, and loyalty scales only had one item each, and thus no Cronbach alpha reliability could be conducted.

Table 8

Cronbach Alpha Reliability and Descriptive Statistics for Scales of Interest

Scale	α	Number of items	*M*	*SD*
Price	.63	4	3.60	0.60
Quality	.62	3	3.85	0.59
Service	.59	3	3.67	0.67
Convenience	.61	3	3.75	0.69
Assortment	-	1	4.33	0.68
Value	-	1	3.66	0.92
Store environment	-	1	4.31	0.70
Loyalty programs	-	1	2.90	1.16
Private brands	.80	4	3.92	0.63
High quality perishable	.85	2	4.06	0.63
Loyalty	-	1	3.99	0.82

Research Question 1

To what extent do the independent variables of value (price, quality, service, convenience, and assortment) have a significant contribution on loyalty of supermarket customers in Atlanta, GA?

H1a: Price has a significant contribution to customer loyalty in the supermarket industry.

H1o: Price does not have a significant contribution to customer loyalty in the supermarket industry.

H2a: Quality has a significant contribution to customer loyalty in the supermarket industry.

H2o: Quality does not have a significant contribution to customer loyalty in the supermarket industry.

H3a: Service has a significant contribution to customer loyalty in the supermarket industry.

H3o: Service does not have a significant contribution to customer loyalty in the supermarket industry.

H4a: Convenience has a significant contribution to customer loyalty in the supermarket industry.

H4o: Convenience does not have a significant contribution to customer loyalty in the supermarket industry.

H5a: Product assortment has a significant contribution to customer loyalty in the supermarket industry.

H5o: Product assortment does not have a significant contribution to customer loyalty in the supermarket industry.

H6a: Customer value has a significant contribution to loyalty in the supermarket industry.

H6o: Customer value does not have a significant contribution to loyalty in the supermarket industry.

To examine research question 1, a multiple linear regression was conducted to assess the relationship between price, quality, service, convenience, and assortment with loyalty. Prior to analysis, the assumptions of normality and homoscedasticity were assessed with scatterplots. The Q-Q scatterplot of standardized residuals plotted against the fitted model values (Figure 2) does not indicate strong deviations from normality. For the assumption of homoscedasticity to be met, the variance must remain fairly constant as the values of the independent variables increase. A violation of this assumption would be indicated by a positive or negative trend in the data, or if there was a clear shift. The fitted residuals plot does not have a strong trend or a shift, indicating that the assumption of homoscedasticity was met.

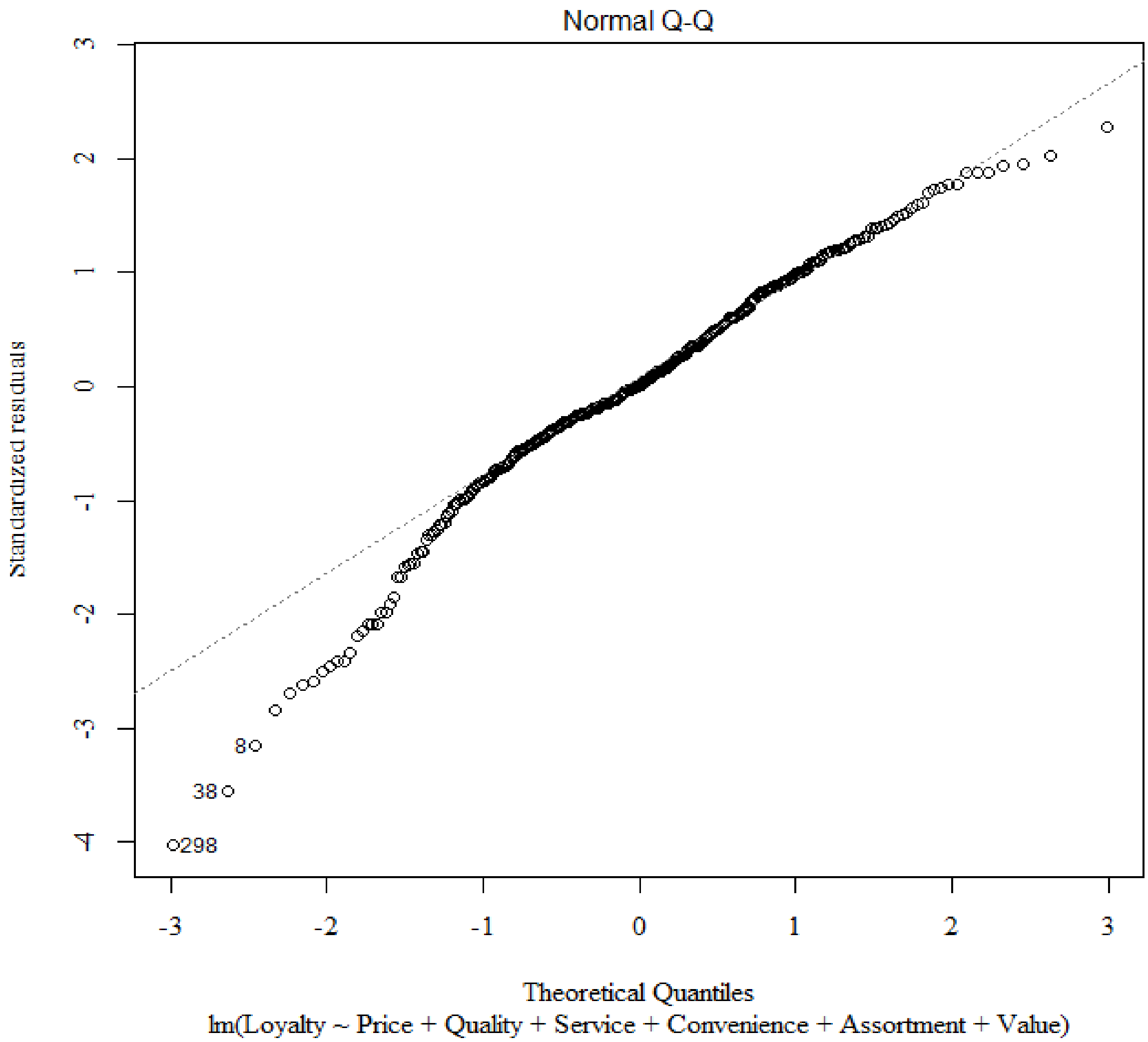

Figure 2. Normal Q-Q plot of Loyalty regressed on Price, Quality, Service, Convenience, Assortment, and Value.

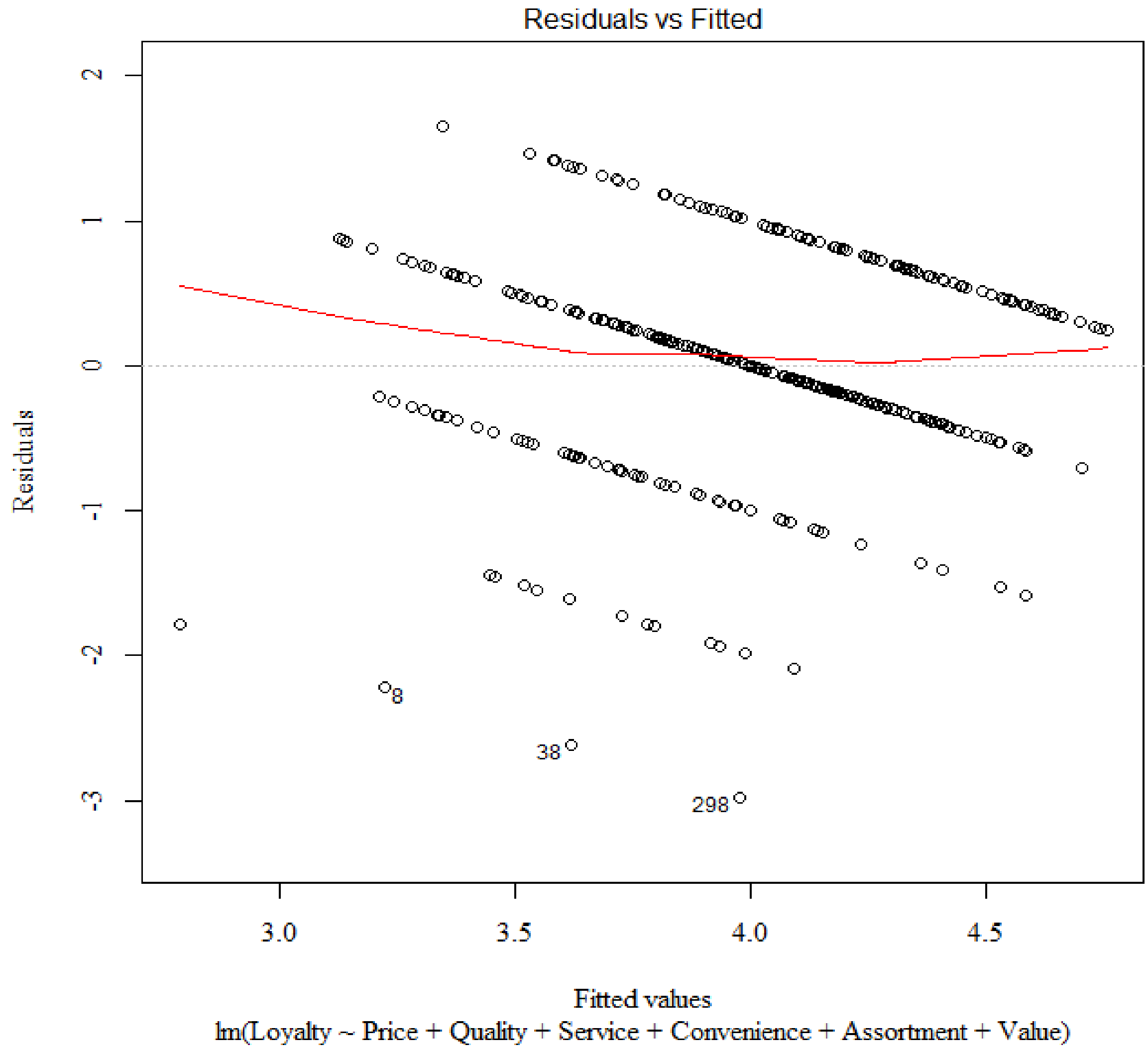

Figure 3. Residuals plot of Loyalty regressed on Price, Quality, Service, Convenience, Assortment, and Value.

Results of the multiple linear regression showed a significant model, F (6, 347) = 13.63 (p < 0.001, R^2 = 0.19). Since significance was found, the individual predictors were examined. Quality was a significant predictor (B = 0.41, p < 0.001), suggesting a significant positive relationship between quality and loyalty (Table 9). Additionally, service was a significant predictor (B = 0.20, p = 0.003), also suggesting a significant positive relationship between service and loyalty (Table 9). As quality and service increased, loyalty also tended to increase. No other predictors were significant.

Table 9

Results for Regression with Price, Quality, Service, Convenience, Assortment, and Value Predicting Loyalty

Source	*B*	*SE*	β	*t*	*p*
Price	-0.05	0.08	-.04	-0.70	.487
Quality	0.41	0.08	.29	4.95	.001
Service	0.20	0.07	.16	2.99	.003
Convenience	0.04	0.06	.04	0.71	.479
Assortment	0.10	0.06	.09	1.64	.102
Value	0.04	0.05	.04	0.77	.443

Based on the results of the regression analysis, null hypotheses 2 and 3 can be rejected. The coefficients for Price, Convenience, Assortment, and Value were not significant, so the null hypotheses were not rejected. A summary of the hypotheses is shown in Table 11.

Spearman Correlation

Due to violations of assumptions, research questions 2–5 were assessed using Spearman correlations. Spearman's rho is a measure of the strength of association between two variables. It is appropriate when one or both variables are measured on an ordinal scale. In other words, it is a correlation between the ranks of two variables. Spearman's rho is not affected by non-normality, nor does it require a linear relationship between the two variables (Chen & Popovich, 2002). The only assumption of Spearman's rho is that the data follow a monotonic relationship. A monotonic relationship is when the direction of the relationship between two variables remains constant. The scatterplots between each of the variables all show monotonic relationships (Figures 4, 5, 6, and 7).

Research Question 2

To what extent does a store's atmosphere/environment contribute to the loyalty of supermarket customers in Atlanta, GA?

> **H7a:** Store atmosphere/environment has a significant contribution to loyalty in the supermarket industry.
>
> **H7o:** Store atmosphere/environment does not have a significant contribution to loyalty in the supermarket industry.

To examine research question 2, a simple linear regression was to be conducted to assess the relationship between store environment and loyalty. However, the assumption of normality of the residuals was not met, and thus the linear regression could not be conducted. Instead, the Spearman correlation was conducted, which does not assume normality. The results of the Spearman correlation were significant ($r_s = 0.20$, $p < 0.001$) (Table 10), suggesting a positive relationship between store environment and loyalty; that is, as store environment increases, loyalty also tends to increase (Figure 4). Based on the results of the analysis, the null hypothesis for research question 2 is rejected.

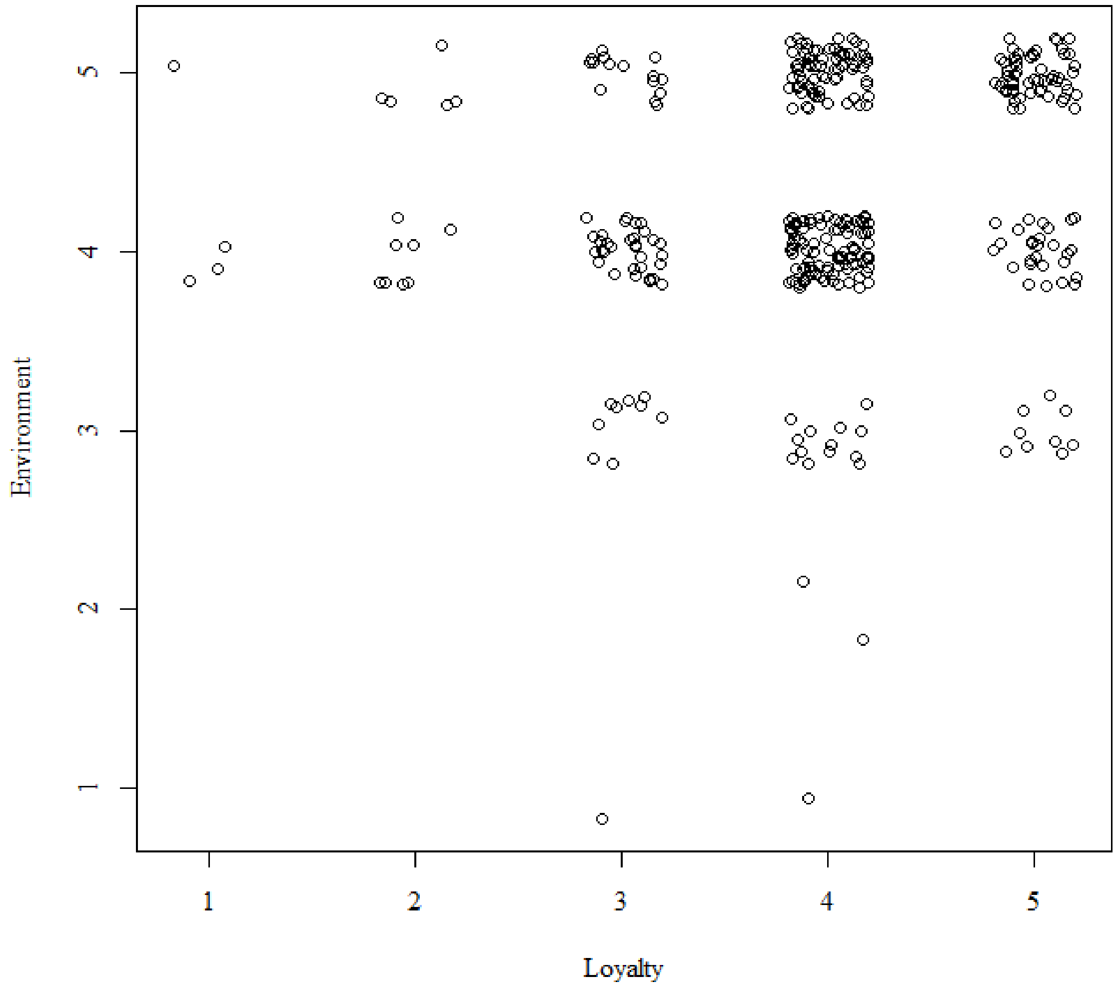

Figure 4. Scatterplot of Loyalty and Environment with jittered values to show density

Research Question 3

To what extent do store loyalty programs contribute to loyalty of supermarket customers in Atlanta, GA?

H8a: Loyalty cards/supporting loyalty programs have a significant contribution to loyalty in the supermarket industry.

H8o: Loyalty cards/supporting loyalty programs does not have a significant contribution to loyalty in the supermarket industry.

To examine research question 3, a simple linear regression was to be conducted to assess the relationship between loyalty programs and loyalty. However, the assumption of normality of the residuals was not met, and thus the linear regression could not be conducted. Instead, the Spearman correlation was conducted, which does not assume normality. The results of the Spearman correlation were not significant ($r_s = 0.08$, $p = 0.118$) (Table 10), suggesting no relationship between loyalty programs and loyalty (Figure 5). Based on the results of the analysis, the null hypothesis for research question 3 cannot be rejected.

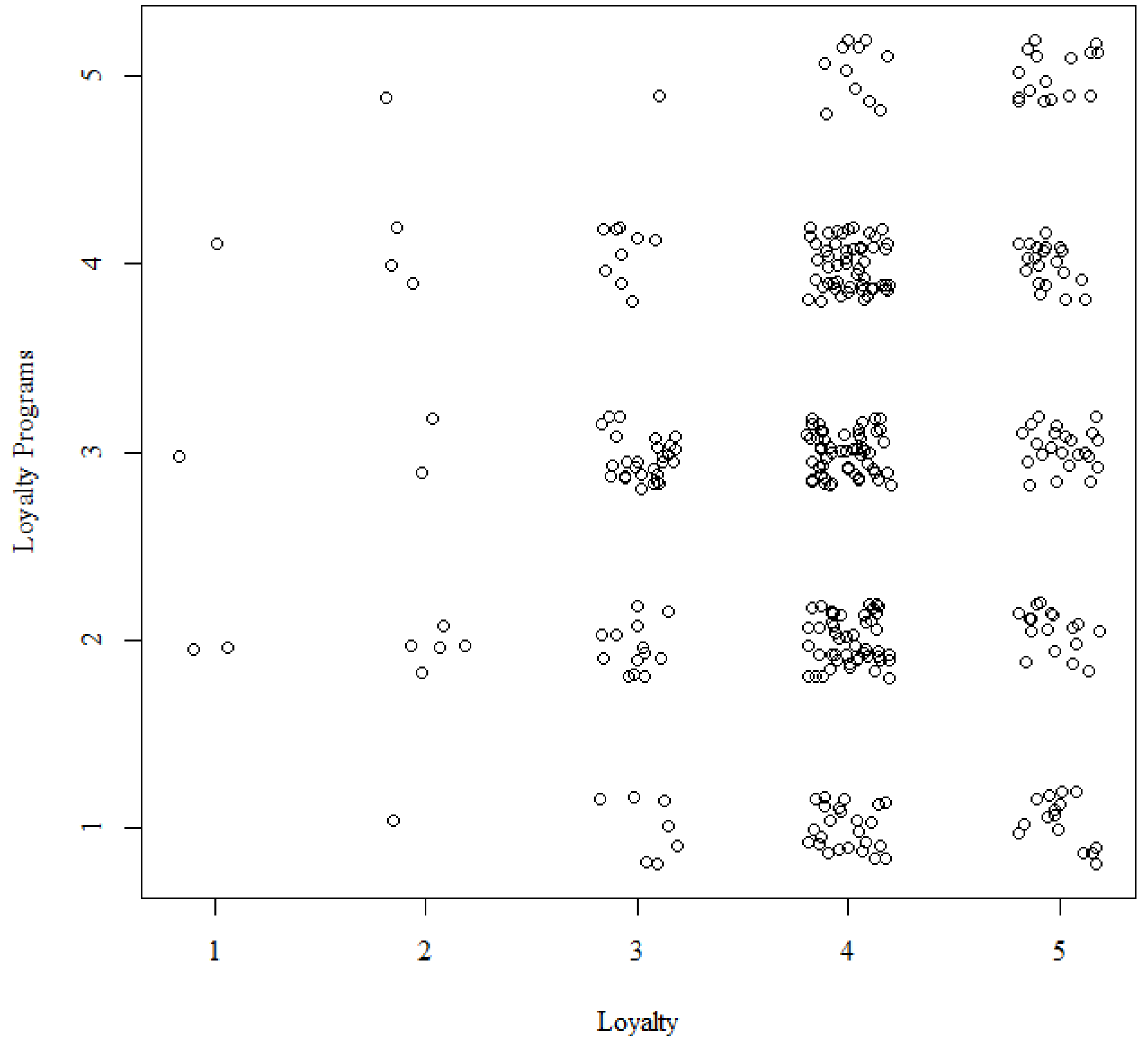

Figure 5. Scatterplot of Loyalty and Loyalty programs with jittered values to show density.

Research Question 4

To what extent do the presence of store private brands contribute to loyalty for supermarket customers in Atlanta, GA?

> **H9a:** Private brands have a significant contribution to loyalty in the supermarket industry.

H9o: Private brands do not have a significant contribution to loyalty in the supermarket industry.

To examine research question 4, a simple linear regression was conducted to assess the relationship between private brands and loyalty. However, the assumption of normality of the residuals was not met, and thus the linear regression could not be conducted. Instead, the Spearman correlation was conducted. The results of the Spearman correlation were significant (r_s = 0.20, p < 0.001) (Table 10), suggesting a positive relationship between private brands and loyalty (Figure 6). This suggests that as private brands increase, loyalty also tends to increase. Based on the results of the analysis, the null hypothesis for research question 4 is rejected.

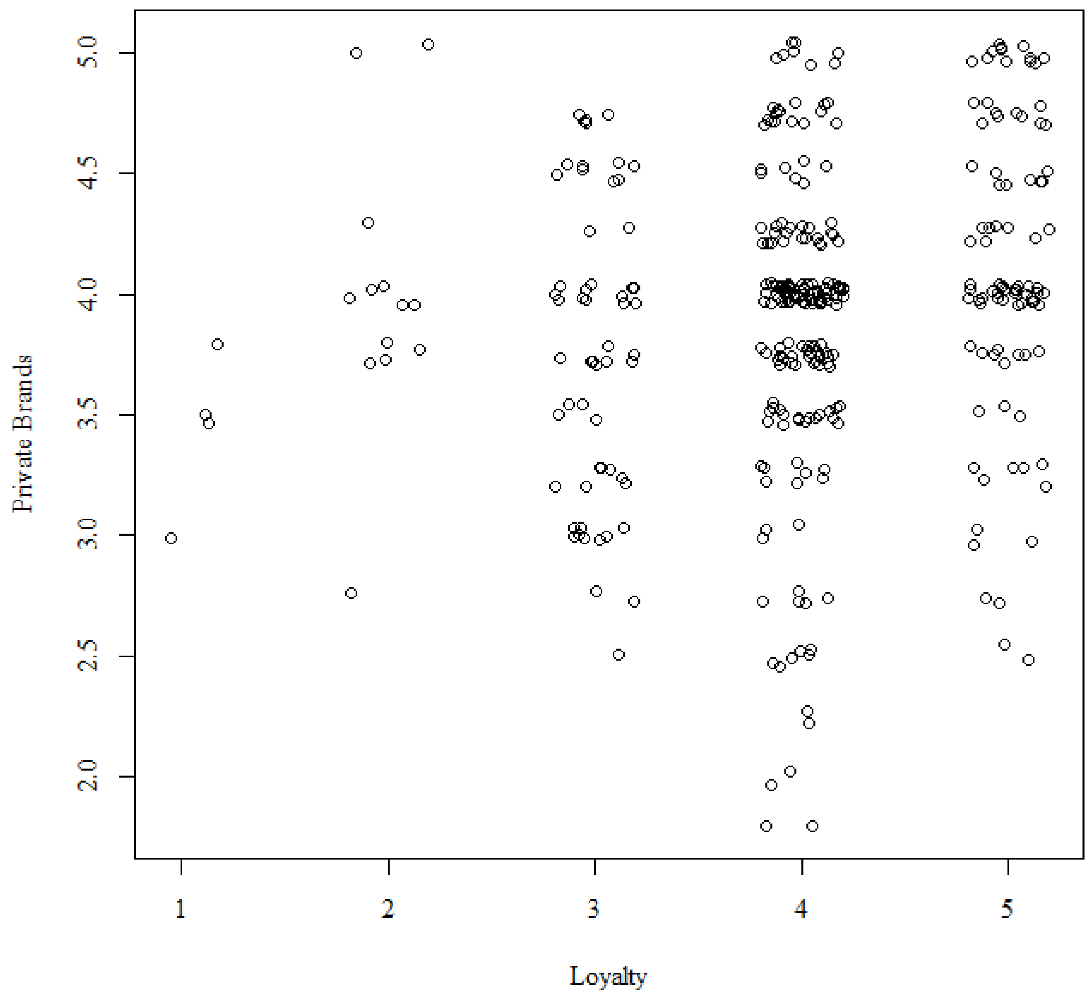

Figure 6. Scatterplot of Loyalty and Private Brands with jittered values to show density.

Research Question 5

To what extent does the quality and freshness of perishable foods contribute to loyalty for supermarket customers in Atlanta, GA?

H10a: High quality perishable foods have a significant contribution to loyalty in the supermarket industry.

H10o: High quality perishable foods do not have a significant contribution to loyalty in the supermarket industry.

To examine research question 5, a simple linear regression was conducted to assess the relationship between high quality perishable foods and loyalty. However, the assumption of normality of the residuals was not met, and thus the linear regression could not be conducted. Instead, the Spearman correlation was conducted. The results of the Spearman correlation were significant ($r_s = 0.41$, $p < 0.001$) (Table 10), suggesting a positive relationship between high quality perishable foods and loyalty (Figure 7); that is, as high-quality perishable foods increase, loyalty also tends to increase. Based on the results, the null hypothesis for research question 5 is rejected.

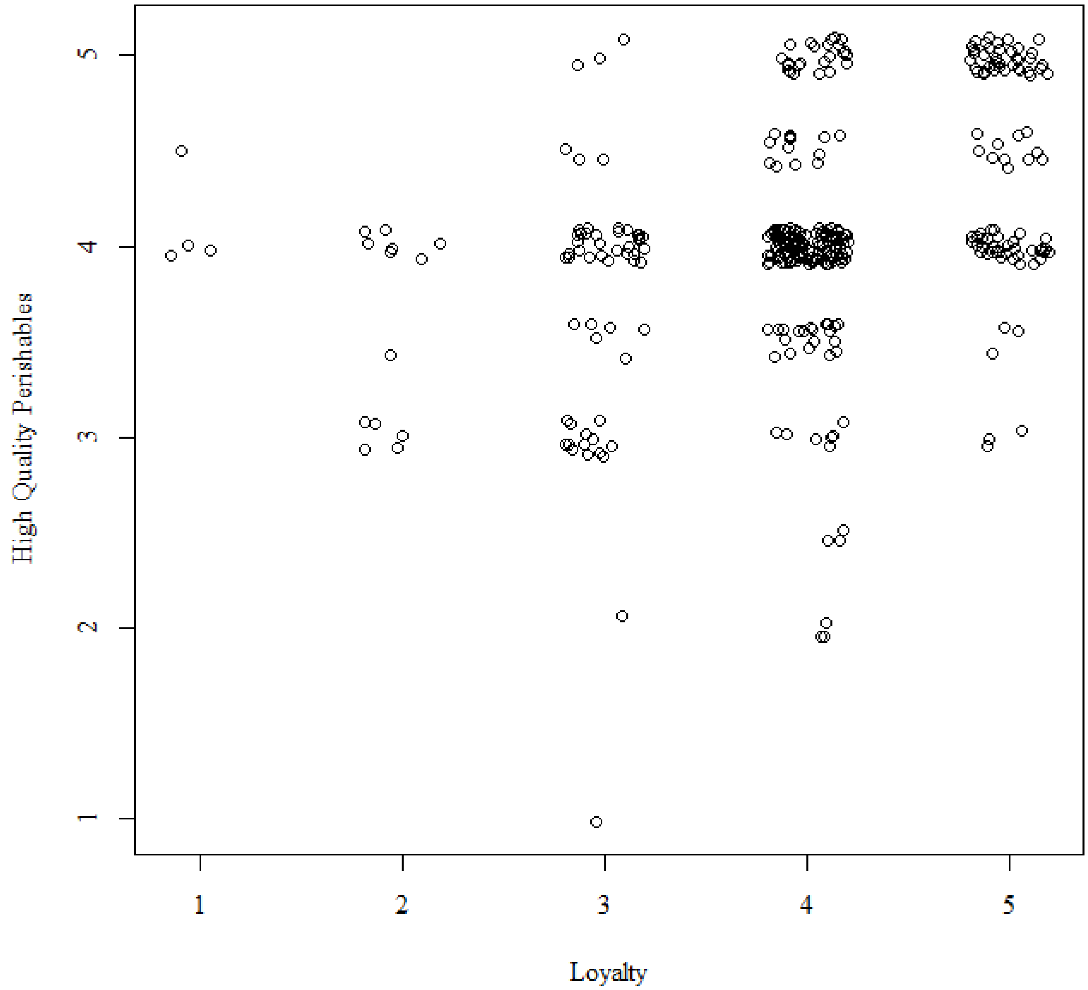

Figure 7. Scatterplot of Loyalty and Quality Perishables with jittered values to show density.

Table 10

Spearman Correlations between Store Environment, Loyalty Programs, Private Brands, High Quality Perishable Foods, and Loyalty

Scale	Loyalty
Store environment	0.20**
Loyalty programs	0.08
Private brands	0.20**
High quality perishable foods	0.41**

Note. ** $p \leq .050$. $p \leq .010$. Otherwise $p > 0.050$.

Summary of Hypotheses

H01: Price does not have a significant contribution to customer loyalty.

Ha1: Price has a significant contribution to customer loyalty.

The *p*-value for the coefficient of Price in the multiple regression model is 0.478. As α was chosen to 0.05, any *p*-value larger than 0.05 would result in failing to reject the null hypothesis. Since 0.478 is greater than 0.05, this indicates that the effect of price on customer loyalty does not have a significant contribution to customer loyalty.

H02: Quality does not have a significant contribution to customer loyalty.

Ha2: Quality has a significant contribution to customer loyalty.

The *p*-value for quality in the multiple regression model was less than 0.001, which is highly significant. As a result, the null hypothesis is rejected. The coefficient for quality in the multiple regression model is 0.41. This indicates that a one-unit increase in quality would result in a 0.41 increase in customer loyalty on average.

H03: Service does not have a significant contribution to customer loyalty.

Ha3: Service has a significant contribution to customer loyalty.

The *p*-value for the coefficient of Service is 0.003. Since this value is less than the alpha of 0.05, the null hypothesis can be rejected. The coefficient for service of 0.20 indicates that a one-unit increase in service would increase customer loyalty by 0.20 on average.

H04: Convenience does not have a significant contribution to customer loyalty.

Ha4: Convenience has a significant contribution to customer loyalty.

The *p*-value for the coefficient of convenience in the multiple regression model is 0.479. This value is too high to reject the null hypothesis, and indicates that no significant relationship exists between convenience and customer loyalty.

H05: Assortment does not have a significant contribution to customer loyalty.

Ha5: Assortment has a significant contribution to customer loyalty.

The *p*-value for the coefficient of assortment in the multiple regression model was 0.102. This value is too high to reject the null hypothesis, and indicates that no significant relationship exists between assortment and customer loyalty.

H06: Value does not have a significant contribution to customer loyalty.

Ha6: Value has a significant contribution to customer loyalty.

The *p*-value for the coefficient of value in the multiple regression model is 0.443. This value is much larger than 0.05; thus, the null hypothesis is not rejected and indicates that there is no significant relationship between value and customer loyalty.

H07: Store atmosphere does not have a significant contribution to customer loyalty.

Ha7: Store atmosphere has a significant contribution to customer loyalty.

The *p*-value for the Spearman correlation was less than 0.001, which is highly significant. This means that the null hypothesis can be rejected. The correlation of 0.20 indicates that a positive significant relationship exists between store atmosphere and customer loyalty.

H08: Loyalty programs do not have a significant contribution to customer loyalty.

Ha8: Loyalty programs have a significant contribution to customer loyalty.

The *p*-value for the Spearman correlation between loyalty programs and customer loyalty is 0.118, which is greater than 0.05. There is no significant relationship between loyalty programs and customer loyalty.

H09: Private brands do not have a significant contribution to customer loyalty.

Ha9: Private brands have a significant contribution to customer loyalty.

The *p*-value for the Spearman correlation between private brands and customer loyalty is less than 0.001, indicating a highly significant relationship. The correlation coefficient of 0.20 indicates that a positive relationship exists between private brands and customer loyalty.

H010: High quality perishable foods do not have a significant contribution to customer loyalty.

Ha10: High quality perishable foods have a significant contribution to customer loyalty.

The *p*-value for the Spearman correlation between high quality perishable foods and customer loyalty was less than 0.001, indicating a highly significant relationship. The correlation coefficient of 0.41 indicates a positive relationship between high quality perishable foods and customer loyalty.

Table 11

Support for Hypotheses 1 – 10

Alternative Hypothesis	*p*	Support
H1: Price has a significant contribution to customer loyalty.	0.487	No
H2: Quality has a significant contribution to customer loyalty.	0.001*	Yes
H3: Service has a significant contribution to customer loyalty.	0.003*	Yes
H4: Convenience has a significant contribution to customer loyalty.	0.479	No
H5: Assortment has a significant contribution to customer loyalty.	0.102	No
H6: Value has a significant contribution to customer loyalty.	0.443	No
H7: Store atmosphere has a significant contribution to customer loyalty.	0.001*	Yes
H8: Loyalty programs have a significant contribution to customer loyalty.	0.118	No
H9: Private brands have a significant contribution to customer loyalty.	0.001*	Yes
H10: High quality perishable foods have a significant contribution to customer loyalty.	0.001*	Yes

Note. * = $p < .05$

Ancillary Analysis

In order to assess the overall relationship each of the variables had with loyalty, a final multiple linear regression was conducted. All variables of interest were added as predictor variables. Prior to analysis, the assumptions of normality and homoscedasticity were assessed with scatterplots. The P-P scatterplot for normality (Figure 8) shows evidence of a heavy left tail, suggesting that the normality assumption was violated. However, with large sample sizes, slight deviations from normality have little effect (Stevens, 2012). The scatterplot of the residuals and predicted values, seen in Figure 9, showed that the assumption of homoscedasticity was met.

The results of the multiple linear regression were significant (F (10, 343) = 11.28, $p < 0.001$, $R^2 = 0.25$), suggesting that all the predictor variables accounted for 25% of the variance in loyalty. Combining all predictor variables provides a view of those independent variables that have the most significance when predicting customer loyalty.

Table 12

Results for Regression with Price, Quality, Service, Convenience, Assortment, Value, Store Environment, Loyalty Programs, Private Brands, and High Quality Perishables Predicting Loyalty

Source	*B*	*SE*	β	*t*	*p*
Price	-0.08	0.08	-0.06	-0.99	0.325
Quality	0.30	0.09	0.22	3.52	0.001
Service	0.20	0.07	0.16	2.90	0.004
Convenience	0.07	0.06	0.06	1.22	0.225
Assortment	0.16	0.07	0.13	2.32	0.021
Value	0.00	0.05	0.00	-0.05	0.960
Store environment	-0.10	0.07	-0.09	-1.50	0.136
Loyalty programs	0.09	0.04	0.12	2.40	0.017
Private brands	0.04	0.07	0.03	0.57	0.568
High quality perishables	0.29	0.08	0.22	3.82	0.001

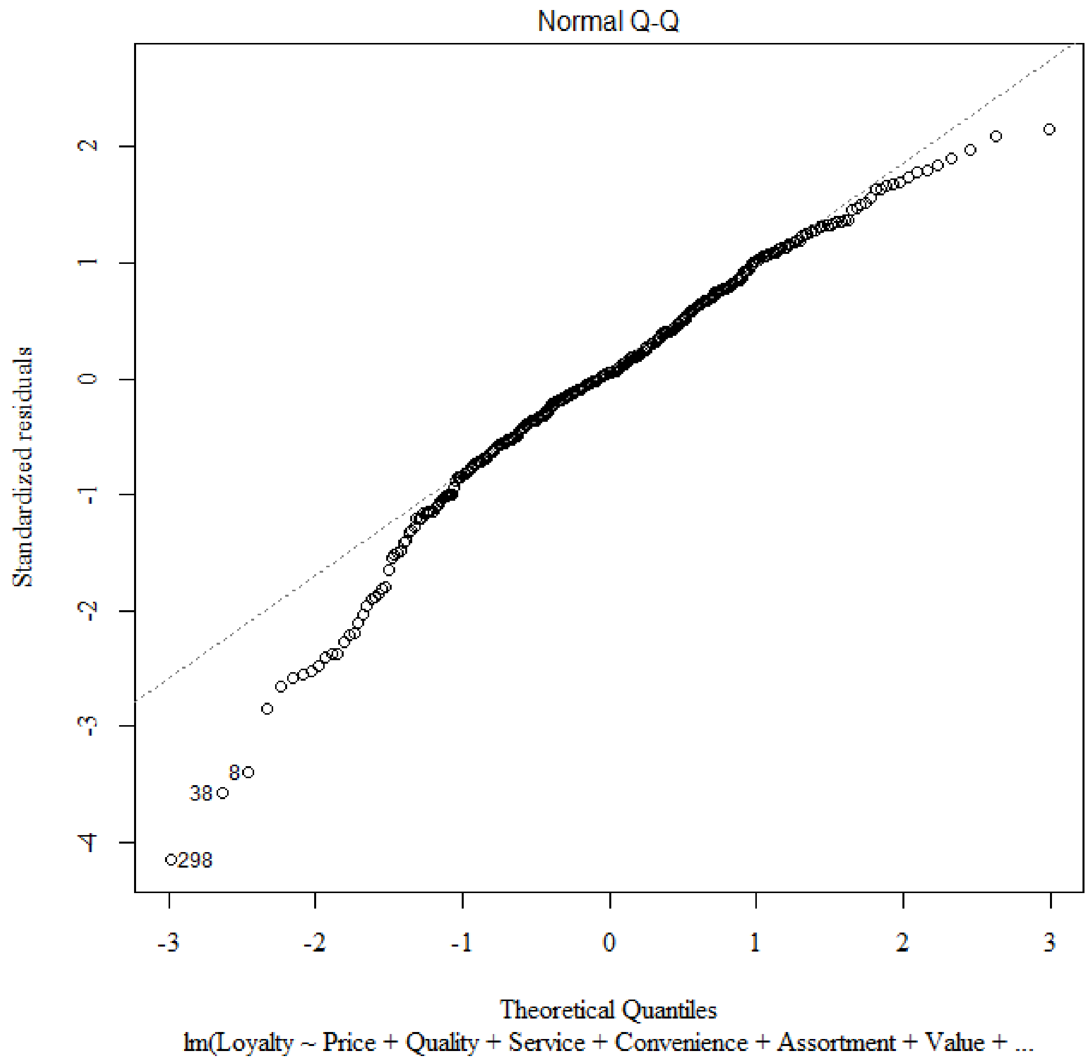

Figure 8. Normal Q-Q plot of Loyalty regressed on all variables of interest.

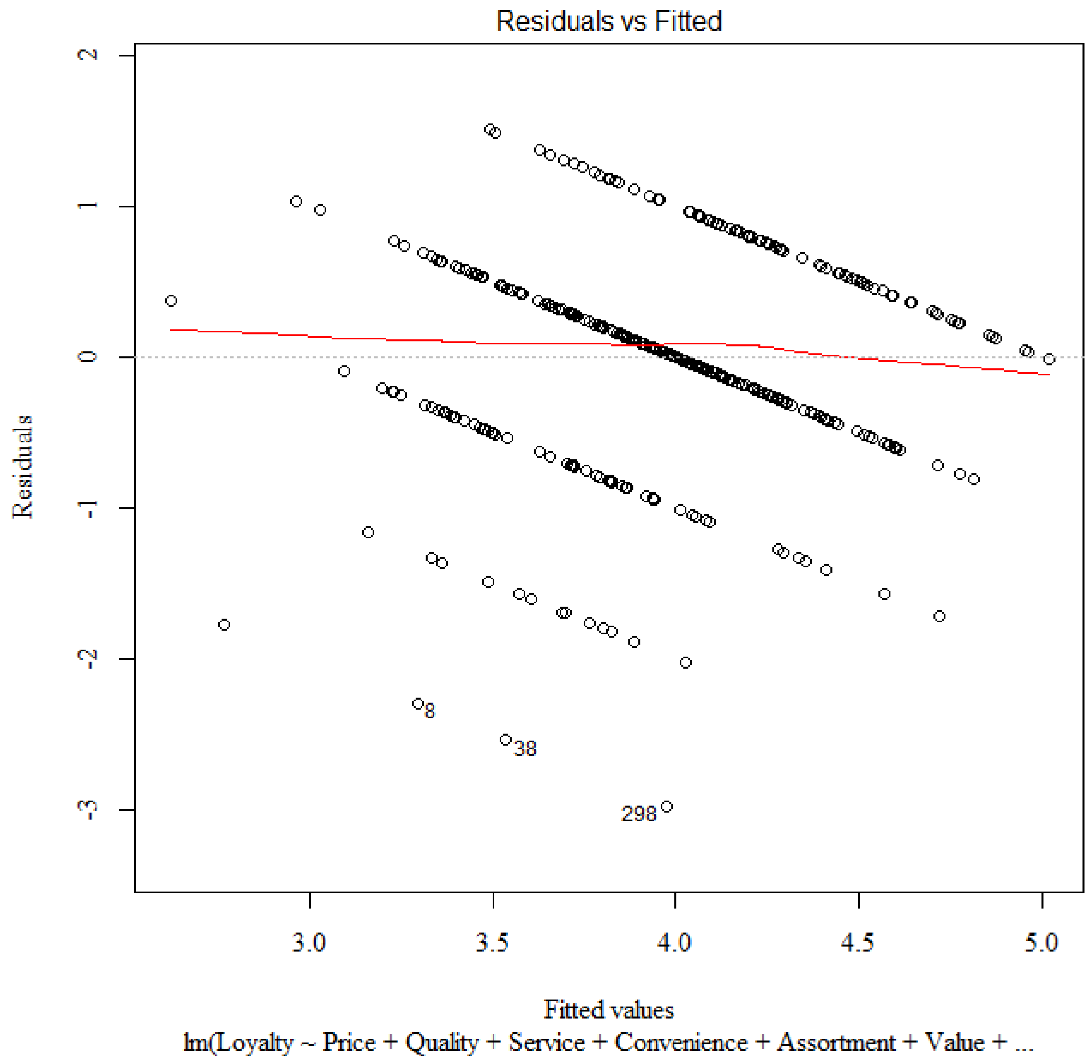

Figure 9. Residuals plot of Loyalty regressed on all variables of interest.

Summary

Prior to analysis, the assumptions of normality and homoscedasticity were assessed with scatterplots. To examine research question 1, a multiple linear regression was conducted to assess the relationship between price, quality, service, convenience, and assortment with loyalty. Based on the results of the regression analysis, null hypotheses 2 and 3 can be rejected. The coefficients for Price, Convenience, Assortment, and Value were not significant, so the null hypotheses were not rejected.

Due to violations of assumptions, research questions 2 – 5 were assessed using Spearman correlations. For question 2, the results of the Spearman correlation were significant ($r_s = 0.20$, $p < 0.001$), suggesting a positive relationship between store environment and loyalty. Based on the results of the analysis, the null hypothesis for research question 2 can be rejected. For question 3, the results of the Spearman correlation were not significant ($r_s = 0.08$, $p = 0.118$), suggesting no relationship between loyalty programs and loyalty. Based on the results of the analysis, the null hypothesis for research question 3 cannot be rejected. For question 4, the results of the Spearman correlation were significant ($r_s = 0.20$, $p < 0.001$), suggesting a positive relationship between private brands and loyalty. This suggests that as private brands increase, loyalty also tends to increase. Based on the results of the analysis, the null hypothesis for research question 4 can be rejected. For question 5, the results of the Spearman correlation were significant ($r_s = 0.41$, $p < 0.001$), suggesting a positive relationship between high quality perishable foods and loyalty. This suggests that as high quality perishable foods increases, loyalty also tends to increase. Based on the results, the null hypothesis for research question 5 can be rejected.

Lastly, in order to assess the overall relationship each of the variables had with loyalty, a final multiple linear regression was conducted. All variables of interest were added as predictor variables. Prior to analysis, the assumptions of normality and homoscedasticity were assessed with scatterplots. The P-P scatterplot for normality (Figure 7) did not show strong deviations from normality and, thus, the assumption was met. The scatterplot of the residuals and predicted values (Figure 8) showed that the assumption of homoscedasticity was met. The results of the multiple linear regression were significant (F (10, 343) = 11.28, $p < 0.001$, $R^2 = 0.25$), suggesting that all the predictor variables accounted for 25% of the variance in loyalty. Further analysis showed that when combined, quality, service, assortment, loyalty programs, and high quality perishables were significantly positively related to loyalty. This suggests that collectively as quality, service, assortment, loyalty programs, and high quality perishables increased, loyalty also tended to increase. These findings, along with implications, recommendations, future research and conclusions, are discussed in Chapter 5.

CHAPTER 5. DISCUSSION, IMPLICATIONS, and RECOMMENDATIONS

This chapter summarizes the findings relating to the study on supermarket customer loyalty. A review of the findings is presented in relation to the research questions and hypotheses. Additionally, implications of this research linking current findings to existing research on customer loyalty are discussed. Lastly, recommendations for future research and practical application for supermarket marketers are iterated.

Summary of Results

The sampled population for this study came from Atlanta, GA. The targeted participants for the survey were primary supermarket customers (those customers that conducted the majority of household grocery shopping at a particular store) and secondary supermarket customers (customers that identified shopping multiple locations other than a primary store). Participants were between the ages of 21 and 65 and have shopped for groceries within the prior two weeks of participating in the survey. The criteria are similar to standard adopted for customer research while providing population parameters that are generalizable to larger populations (see Brown, 2013).

The most common primary store selected by the study participants was Kroger (159, 45%), followed by Publix (116, 33%). For secondary stores, Publix (74, 21%) and Kroger (65, 18%) were also the top-two responses. Many participants conducted 61-80% of the shopping at their primary store (152, 43%) and half of the participants spent less than 20% at their secondary store (176, 50%). This suggests that while shopping at the primary store, customers spent more than when shopping at secondary stores. In fact, the amount spent per visit varied from $21-50 (101, 29%) all the way to $101 or above (71, 20%), while many customers only spent $21-50 per visit in their secondary store (157, 44%).

The frequency of trips was also influenced based on primary or secondary store classification. Many participants made one (151, 43%) or two (114, 32%) trips to their primary store per week while the majority took only one trip to their secondary store per week (223, 63%). The increase in trips and high percentage of the total shopping conducted at primary locations aligns with research indicating that customers spend more at their primary store. Findings of the study indicate that all the predictor variables accounted for 25% of the variance in loyalty. Further analysis showed that quality, service, private brands, store environment, and high quality perishables were significantly positively related to loyalty. Price, loyalty programs, convenience, value, and assortment were not significantly related to loyalty.

Discussion of the Results

RQ1. To what extent do the independent variables of value (price, quality, service, convenience, and assortment) have a significant contribution on loyalty of supermarket customers in Atlanta, GA? The results of the multiple linear regression were significant (F (10, 343) = 11.28, $p < 0.001$, $R^2 = 0.25$), suggesting that all the predictor variables accounted for 25% of the variance in loyalty. Further analysis showed that of the independent variables measured, quality and service were significantly positively related to loyalty. This suggests that as customer ratings for quality and service increase, loyalty also tended to increase. Based on the results of the regression analysis, null hypotheses 2 for quality and 3 for service were rejected.

The coefficients for Price, Convenience, Assortment, and Value were not statistically significant to customer loyalty, so the null hypotheses 1, 4, 5, and 6 were not rejected. However, homoscedasticity of Price, Convenience, Assortment, and Value resemble mediating variables. Creswell (2009) described mediating variables as those variables that when combined with other variables strengthen independent variables. Data from the study indicate these variables were important to customers and, although they did not predict loyalty, did enhance loyal behavior.

The significance of quality and service to customer loyalty supports Brown's (2013) conclusion that customers expect more than low prices. This study clearly identified quality and service as the most significant independent variables that had an impact on overall customer loyalty. As such, this suggests a paradigm shift from traditional views on drivers of loyalty. Moreover, this elevates knowledge of loyalty predictors apart from prior studies on customer loyalty. This change in loyalty drivers is a call to action for marketers that rely solely on price for attracting and retaining loyal customers. Furthermore, the data indicates customers placed more significance on service than price, which suggests that customers will not accept poor service for low prices; likewise, customers do not see value in lesser quality at low prices.

RQ 2-5. Due to violations of assumptions, research questions 2-5 that include store atmosphere/environment, store loyalty programs, store private brands, and the quality and freshness of perishable foods were assessed using Spearman's rank correlations. Results suggest a positive relationship between store environment and loyalty; see figures 4, 5, 6, and 7. Based on the results of the analysis, the null hypothesis for research question 2 for store environment can be rejected. These results are consistent with research that indicates that a stimulating store environment and store atmosphere are important to overall customer experience and loyalty (e.g., Anderson, 2013).

No significant relationship was found between loyalty programs and loyalty; see figure 5. The majority of the participants do not select their store based on the store's loyalty program (264, 75%). However, the majority of the participants indicated that they do receive specific promotions from loyalty reward cards (201, 57%). This suggests that supermarket customers are minimally responsive to loyalty programs. This mismatch of promotions received versus promotions used suggests that marketers should choose loyalty programs wisely and constantly evaluate their effectiveness. The results of this study contrast with those of Woodall (2009) and Jenkins (2010), who each found that loyalty programs support and contributed to loyal behavior. Do the results of this study, completed in 2015, suggest a shift in customer behavior in the short time interval after the Woodall and Jenkins studies were performed? Customers may have become numb to the price gimmicks and the extra hoops needed by many to participate in promotional activities or the saturation of loyalty programs may have diminished the significance customers place on them. Marketers should take note of consumer perceptions and ensure effectiveness and relevance of loyalty program investment over programs aimed at quality and service. The depth and breadth of loyalty programs coupled with changes in customer perception of value support the need for future research on loyalty program effectiveness.

A significant positive relationship existed between private brands and loyalty; see Figure 6. This agrees with results from Nenycz-Thiel and Romaniuk (2012) that indicate private brands offer an opportunity for marketers to provide value and quality in the same package. Likewise, the significance customers place on quality suggests that supermarkets with lesser quality private brands will have a significant negative impact to loyalty. Private brands with less quality than national brands may actually leave the customer feeling at risk in purchasing greater than the reward of lower prices. Further, these results support Brown's (2013) finding that 73% of supermarket customers were comfortable purchasing store/private brands. By 2025, Brown predicted that number is projected to reach 81%; therefore, the significance the opportunity exists for supermarkets to grow sales and profits in categories previously dominated by manufacturers of national brands. Private brands also allow an opportunity to build brand equity while creating differentiation of product assortment and quality from similar product offerings by competitors. With consideration given to the significance customers place on quality, marketers will benefit by considering private brand products that are equal to or better quality than national brand equivalents. The growing acceptance customers have on private brands and significance to loyalty found in this study support the need for future research on private branded products.

A significant positive relationship existed between high quality perishable foods and loyalty; see figure 7. The findings align with the significance customers place on overall quality of products offered by supermarkets. This suggests that high quality perishables are essential to building and retaining a supermarket's primary loyal customer base. Supermarkets that provide high quality perishable products on a consistent basis can strengthen customer loyalty. The findings also suggest that loyalty built on quality can make it difficult for rival competitors that select price over quality as a marketing tactic. In fact, high quality perishables along with exceptional service can differentiate supermarkets.

Finally, although assortment was not significant in the initial model, including store environment, loyalty programs, private brands, and high quality perishables into the model increase the significance of assortment. This suggests that there is a possible interaction in the model that better explains the variation in customer loyalty. However, it should be noted that the distributions of loyalty programs, store environment, and high quality perishables were not normal, which could be adding bias to the parameter estimates. Although store environment and private brands showed significant correlations, when included in the model they did not show a predictive effect. This is due to the fact that when the number of predictors in a regression model increases, the sample size required in showing significance increases. This also serves as a reminder that loyalty correlations alone may not lead to causation of customer loyalty.

Limitations

The study was conducted via a Survey Monkey and, thus, data were collected from active Survey Monkey audience members. By utilizing Survey Monkey, all responses for the study were limited to only those supermarket customers with access to the Internet. The participants for this study came from the Atlanta, GA area and they may not have the same views as supermarket customers elsewhere. Parameters were geared toward primary supermarket shopped and resulted in the majority of the 354 total participants being female (302, 85%). Furthermore, the majority of participants (223, 63%) were between the ages of 50 and 65 years old and may not mirror a particular supermarket's customer base.

Reliability was slightly lower for price, quality, service, and convenience than the ideally accepted rate of 0.70 or higher. Store assortment, store environment, loyalty programs, and loyalty scales only had one item each, and thus no Cronbach alpha reliability could be conducted. Due to violations of assumptions, research questions 2-5, which include store atmosphere/environment, store loyalty programs, store private brands, and the quality and freshness of perishable foods, were assessed using rank correlations. Although some variables had associations with loyalty predictor variables, associations and relationship fall shy of meeting statistical rigors for predicting or being causation for loyalty.

Significance and Implications

Prior studies have shown that primary loyal customers spend more money and are more profitable than non-loyal secondary customers. Data from this study support earlier findings on customer loyalty and indicate that supermarket customers shop more and spend more at their primary store than secondary store. Based on this study's findings of what influences primary shoppers, quality and service had the most significance to customer loyalty. This suggests that supermarkets offering higher quality and better service stand the best chance at creating and retaining loyal customers. Adversely, supermarkets that fall into the realm of low price gimmicks and poor service may see increases in shopping from secondary, less profitable customers.

The significance on quality and service along with price implies that customers want high quality products, and prefer them to be at good prices. Likewise, customers do not see value in lesser quality products regardless of low price. Moreover, the significance customers place on service suggests that customers will not tolerate poor service regardless of price or quality. This study provides marketers insights needed to increase their loyal customer base and untimely lead to increases in sales and profitability.

Recommendations

This study revealed that quality has the most significance to supermarket customer loyalty. Thus, supermarkets seeking to improve customer loyalty should first focus on improving quality. Within the retail food channel, quality is often referred to when products or services are evaluated by customer experience; this evaluation can occur while within the store, or with products once taken home. The American Society for Quality (ASQ.) defines quality as “a subjective term for which each person has his or her own definition” (para.4). In technical usage, quality includes the characteristics of a product or service that bear on its ability to satisfy stated or implied needs, and a product or service free of deficiencies.

Quality perceptions to customers can also be price driven; this suggests that customers perceive quality differently based on the price of the product or service. Customers expect a level of quality regardless of the price of the product. Highlighting quality attributes along with price may resonate as value with customers. Negligible switching cost to supermarket customers can result in a customer base that shops based on convenience but conducts primary shopping at a higher quality supermarket.

Quality to customers encompasses many areas within a supermarket. Recent surveys conducted by Brown (2013) indicated that fresh foods such as Dairy, Produce, Meats, and Deli/Bakery all have significance to customer perception of quality. The challenge that may arise for many supermarkets is how to increase quality without jeopardizing price position. Customers understand price and can perceive quality based on price; therefore, supermarkets with a goal of utilizing quality to build loyalty likely have two options: (a) improve quality of the product while keeping price constant, or (b) reduce the price customers pay for the product while keeping the quality constant.

One method many supermarket retailers turn to for balancing price and quality is expansion of store/private brand assortments. Private/store brand product must also provide customers with both high quality and a great price. Supermarkets should consider private brand products that are equal to or better quality than national brand equivalents at lower prices. Higher quality at lower prices may allow private-branded products to build brand equity. This brand equity can create differentiation of product assortment and quality from similar product offerings by competitors.

Differentiation tactics have spurred many retailers, including supermarkets, to layer in various loyalty type programs. Customer data from this study indicates that loyalty programs alone are not predictors of loyalty. However, loyalty programs built on a foundation of quality and service over just price may have merit. A successful loyalty program must meet the needs of existing loyal customers while influencing secondary shoppers to become primary loyal shoppers. Likewise, the risk of loyalty programs in an environment of low prices, poor service, and questionable quality will likely only attract less profitable, secondary customers.

The findings of this study identify several areas for future research. First, paradigm shifts in customer significance of quality and service over price when compared to prior studies suggests customers are changing; thus, repeating the same study in 3-5 years may show additional strength in variables or identify new emerging trends in loyalty. Second, store loyalty programs are steadily increasing, yet findings suggest customer use of loyalty programs is diminishing. Research on which loyalty programs are most effective may provide clues to marketers on creation of loyalty programs that resonate with customers. Finally, further research on private/store brands can help all retailers find a niche that uses products to differentiate from competitive rivals.

Conclusions

The value of customer loyalty to business sustainability should not be taken lightly. Loyal customers shop more often and spend more when shopping than secondary, non-loyal customers. Increases in trips and amount spent by loyal customers provide a greater opportunity for increases in sales and profitability. The significance customers place on quality over price signals a paradigm shift from prior studies indicating that price was the primary driver of loyalty. This change is a call to action for supermarkets that rely solely on price for attracting and retaining loyal customers. Furthermore, the data indicate customers also place more significance on service than price which suggests that customers will not sacrifice good service for low prices.

The purpose of this study was to identify how the independent variables of value (price, quality, service, convenience, and assortment) contribute to customer loyalty among supermarket primary and secondary customers. Previous studies found that price, value, and perception of value ranked high in importance to customers when predicting loyalty. Similarly, this study concludes that, collectively, as quality, service, assortment, loyalty programs, and high quality perishables increased, loyalty also tended to increase.

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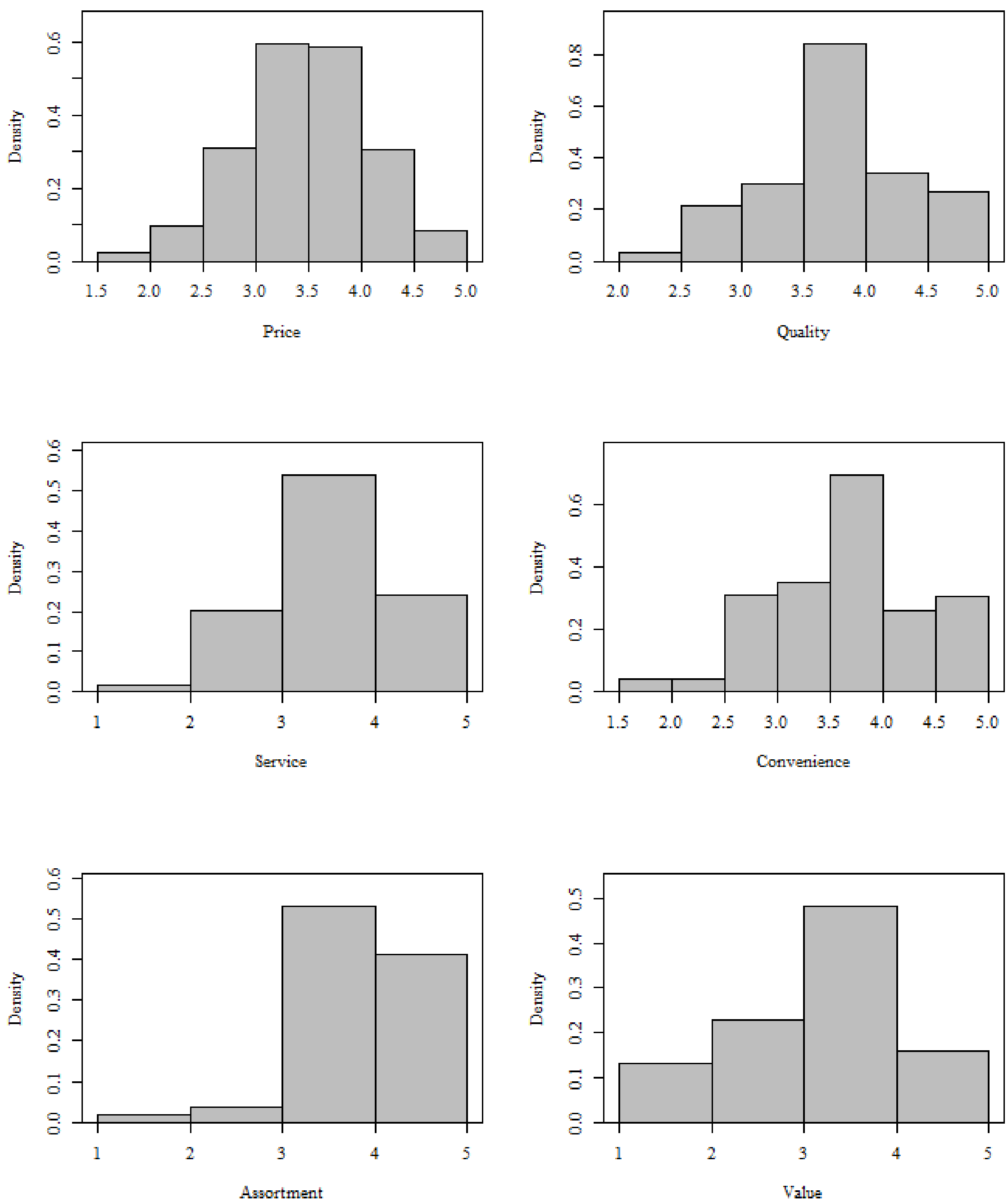
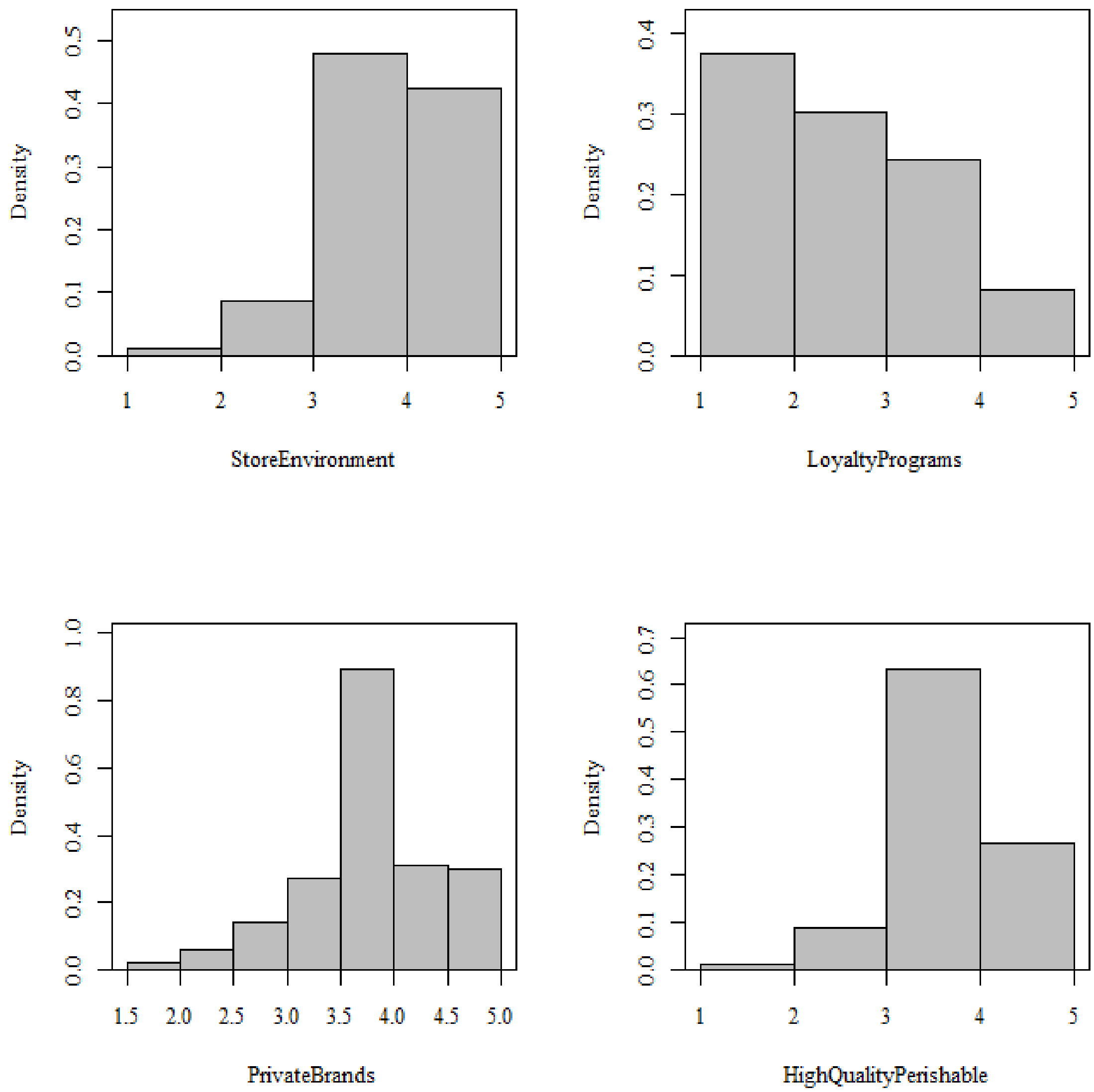
APPENDIX A. HISTOGRAMS FOR PRICE, QUALITY, SERVICE, AND CONVENIENCE



APPENDIX B. HISTOGRAMS FOR STORE ENVIRONMENT, LOYALTY PROGRAMS, PRIVATE BRANDS, AND HIGH QUALITY PERISHABLES



APPENDIX C. QUESTIONS RELATED TO EACH SCALE

Scale	Questions
Price	Good everyday prices influence my decision to shop at a store
	I shop at my primary store because they have the lowest prices
	Good sale prices influence my decision to shop at a store
	I would leave my primary store for lower prices
Quality	High quality food influences my decision to shop at a store
	I shop at my primary store because they have the highest quality foods
	High quality represents value more than low prices
Service	Good customer service influences my decision to shop at a store
	I shop at my primary store because they have the best customer service
	I would leave my primary store due to poor customer service
Convenience	Convenient locations influence my decision to shop at a store
	I shop at my primary store because they are the most convenient
	I would leave my primary store for a store that is more convenient
Assortment	Good selection/product assortment influences my decision to shop at a store
Value	I search for the best value when shopping for groceries

Store environment	Good in-store environment (clean, store layout, signs, lighting, etc.) influences my decision to shop at a store
Loyalty programs	The availability of a frequent shopper/loyalty card influences my decision to shop at a store.
Private brands	My primary store offers high quality store/private brands
	I purchase store/private brands at my primary store
	Store/private brands represent a value
	I purchase store/private brands to save money
High quality perishable	My primary store offers high quality perishable foods
	My primary store offers fresh perishable foods
Loyalty	I consider myself a loyal shopper at my primary store.