

**The European Institute of Retailing and Services Studies**

Recent Advances in Retailing and Service Science

July 16–19, 2018

**The importance of location, price and quality when  
choosing a grocery store**

Author:

Thorhallur Gudlaugsson, University of Iceland ([th@hi.is](mailto:th@hi.is))  
School of Business, Gimli v/Saemundargata, 101 Reykjavik, Iceland

## ABSTRACT

This paper evaluates the factors Icelandic consumers consider when choosing a grocery store. Factors include the importance of location, price and quality. Three hypotheses are proposed: (1) the location is of greater importance than both price and quality; (2) consumers who have discount stores at the top of their head are more price sensitive than others; and (3) younger consumers are more price sensitive than older consumers. The results are based on 2,891 answers gathered from a survey conducted in September and October 2017; 62% of respondents were female, and 47% were younger than 30 years old.

Findings demonstrate that 73% (+/-1.62%) agreed that a location close to home is important when choosing a grocery store; 73% (+/-1.63%) agreed that low price is important; and 81.3% (+/-1.43%) agreed that quality is important. Findings did not reveal significant differences between location and price, but quality had a significantly higher score than other factors. Therefore, hypothesis 1 was not supported because quality was of higher importance than location. However, findings did support hypothesis 2, since respondents who had the discount store Bónus at the top of their minds agreed more with the statement about the importance of low price than those who mention Hagkaup, a store at the pricier end of the market. Findings also support hypothesis 3, as the oldest age group agreed with this statement more than those who were older.

This research contributes to strategic marketing theories and clearly demonstrates how different demographic groups weigh certain factors when choosing a grocery store.

## 1 LITERATURE REVIEW AND INTRODUCTION

Location, price and quality are all important factors for customers when choosing grocery stores. In modern marketing, these three factors are considered important within the marketing mix theory. The marketing mix theory can be defined as a framework for the tactical management of the customer relationship, including product, place, price and promotion. Collectively, these four categories are often referred to as the 4Ps of marketing mix (Hunt, 1976). When the product is more of a service than intangible product, traditionally, process, people and physical evidence are elements that are also important -this is known as the 7Ps model (Booms and Bitner, 1993). Moreover, productivity and quality are often also considered (Lovelock and Wright, 2002). In this paper, the focus is on the place (location), price and quality elements of productivity and quality.

Location is part of the marketing element place, more recently defined as distribution or marketing channels. The element place includes company activities that make the product available to target consumers. Locations are part of the so-called 4Cs model where channels, coverage inventory, transportation and logistics are also part of the place element (Lauterborn, 1990). In the early days of marketing, location and distribution were considered one of the most important marketing theories (Converse, 1951). Chosh and Craig (1983) argued that to design successful location strategies, retailers must take into account not only the marketing environment confronting them today, but they must also anticipate possible competitive and demographic changes. Drezner (1994) further argued that finding the best location requires the analysis of market share function. As one can see, the focus on location is an important component in these marketing theories, and it is still considered an important element, especially in the field of retailing where location is generally accepted as the primary key to retail success (Birkin, Clark, Clark and Wilson, 1996; Litz and Rajaguru, 2008).

Birkin et al. (1996) focus on how it is possible to integrate geographical information systems (GIS) to gain a better understanding of planning within organizations in both public and private sectors. These authors argue that there is a widespread misconception that market share is fundamentally dependent on product pricing and other complicating factors, such as brand awareness and promotion. They do not deny that brand strength, product competitiveness and promotion all play a role in determining the market share, but they assert that location also has its effects on market share since people are increasingly less likely to visit retail service centers that are farther from their homes or workplaces. Litz and Rajaguru

(2012) studied how important physical location is as a source of small-firm advantage. They tested the validity of three classic perspectives; central-place theory, spatial interaction theory and the principle of minimum differentiation, and found significant support for the central-place theory. Brown (1991) argued that location, similar to every other element of the marketing mix, is in a constant state of change; however, the academic conceptualization of retailing location has changed little since 1971.

Li and Liu (2012) utilized the locational perspective to investigate the performance of Walmart and Kmart stores. The aim of the study was to analyze and explain the difference in the performance of Walmart and Kmart stores in the greater Cincinnati area. The authors used a modified Huff model to estimate the potential sales of Kmart and Walmart stores, and results showed that selection of store location partially explained the difference in performance between the two stores.

In the ESRI knowledge brief (2018), it is concluded that growing retail sales is related to the comprehensive analysis of locations, and their product, Location Analytics, can be a useful tool. They argue that 74% of retailers believe that location is important, and 45% of the leading retail and restaurant chains use Location Analytics. Based on this knowledge of the importance of location, the following hypothesis is put forward:

- **From the customer point of view, the importance of location is higher than both price and quality.**

Pricing is one of the key elements in marketing and has been an important factor since the early days of the theory (Converse,1951). In fact, it was to begin with, the first P's in the 4P's model (Chong, 2003). The importance of pricing in marketing has been well documented in the literature (Begg, Fische and Dornbusch, 1987; Eaton and Eaton, 1988; Gabor, 1977; Kotler, Leong, Ang and Tan, 1996; Mazumdar and Monroe, 1990, 1992; Misra and Trivedi, 1997; Stern and El-Ansary, 1992;). Guiltinan and Gundlach (1996) studied the impact of predatory pricing, and Kalyanam (1996) studied pricing decisions under demand uncertainty.

Professor Monroe is known for his contribution to the field of pricing, pricing strategy and tactics. His research areas include behavioral pricing and consumer shopping behavior. In all modern textbooks on marketing, the term pricing is considered an important part of the marketing mix. Dodds, Monroe and Grewal (1991) reported on the effects of price, brand,

and store information on buyers' perceptions of product quality and value as well as their willingness to buy. Results indicated that price had a positive effect on perceived quality but a negative effect on perceived value and willingness to buy. Findings also concluded that favorable brands positively influenced the perception of quality and value as well as willingness to buy. Customers did not always interpret price changes in a straightforward manner. A price increase, which in some cases would lower sales, may have positive meanings for buyers. This is normally the case with luxury goods. Similarly, consumers may view a price cut in several ways, such as getting a better deal or that the quality had been reduced (Byron, 2007; Burnsed, 2009).

Three major pricing strategies generally exist: customer value-based pricing, cost-based pricing and competition-based pricing (Kotler, Armstrong, Harris and Piercy, 2017). Customer value-based pricing uses buyers' perception of value as the key to pricing, and price is considered along with all other marketing mix elements before the marketing program is set. It can be argued that value-based pricing is driven by the marketing concept philosophy. Cost-based pricing involves setting prices based on the cost of producing, distributing and selling the product in addition to a fair rate of return for the company's effort and risk. It can be argued that cost-based pricing is driven by the production concept philosophy. Competition-based pricing involves setting prices based on competitors' strategies, costs, prices and market offerings. It is based on the notion that consumers will base their judgements of a product's value on the prices that competitors charge for similar products or services. It can be argued that competition-based pricing is driven by the selling concept philosophy.

Price sensitivity is an important factor for companies' pricing strategies since customers are better informed about product qualities, benefits, alternatives and prices through a variety of information sources such as social media, family members and various marketing communications by other companies. It can be argued that consumers are sensitive to prices because they want to get as much value as they can when buying products or services. This argument suggests that the price for products or services can never be too high, however, these purchases may lack functional or emotional value (Andersen and Kumar, 2006; Blomback and Axelsson, 2007; Chernatony, Harris and Riley, 2000; Grönroos, 2008). Price sensitivity is value related and is the awareness of how consumers perceive the cost of a particular product or service. It is therefore different by segments, including younger consumers, older consumers, those who shop more often at discount stores and those who do

not. Based on various perspectives on the impact of price in the marketing mix, the following hypotheses are put forward:

- **Those who have discount stores at the top of their minds are more price sensitive than others.**
- **Younger consumers are more price sensitive than older consumers.**

Following this introduction, this paper will discuss the methodology of the study and present its results. A discussion on the findings and the contribution to theory and practice, the limitations of the study, and the possible further research in this area concludes this paper.

## 2 METHODOLOGY AND DATA ANALYSIS

Data were collected from surveys conducted in October 2017. Thirteen independent research groups gathered data using the same questionnaire in both web-based and paper-based forms. The questionnaire began with an open question asking respondents what grocery store first came to mind. The next four questions used the Likert scale in which 1 indicated that the respondent strongly disagreed with the statement and 5 strongly agreed to it. The first statement was, “When choosing a grocery store, location near my home is important.” The second statement was, “When choosing a grocery store, low price is the most important element,” and the third statement was, “When choosing a grocery store, quality is the most important element.” These three statement-questions were used to determine the hypotheses in this paper.

The next nine questions concerned image attributes including “freshness,” “low price,” “product range,” “boring,” “different,” “high price,” “opening hours,” “quality” and “funny.” Some of these image attributes have been used in past research and were used for comparison. None of these image questions were used in this paper; however, the last question in this portion of the questionnaire estimated how often or how rarely respondents visit the grocery stores mentioned in the survey. They included Fjarðarkaup, Nettó, Hagkaup, Víðir, Bónus, Iceland, Costco and Krónan. Finally, there were background questions on gender, age, income, education as well as whether respondents chose Bónus or Costco.

As previously stated, the data were gathered by 13 individual research groups using web-based and paper-based questionnaires. The author of this paper estimated whether there was a difference between using those two methods based on a 95% confidence interval. In two out of three questions concerning location and quality, there was a significant difference in both cases. The score for location was higher in the paper-based questionnaire, but for the quality question, the score for the web-based questionnaire was higher. In both cases, the eta-squared was low, 0.005 and 0.004, so only a small proportion of the variance could be traced to different methods of data gathering. It was also estimated whether there was a difference among the 13 research groups based on a 95% confidence interval, and only in one question concerning locations was there a significant difference among the groups. Eta-squared was low at 0.011. Therefore, all data were merged into one dataset with 2,891 valid answers.

To examine whether location is of higher importance than both low price and quality (hypotheses 1), a one-sample test was used based on a 95% confidence interval. To examine whether those who have discount stores at the top of their minds are more price sensitive than

others (hypotheses 2), an ANOVA was used. This method was also used to examine whether younger consumers are more price sensitive than older consumers (hypotheses 3).

### 3 RESULTS

First, we discuss whether location is of higher importance than both low price and quality, then whether those who have discount stores at the top of their minds are more price sensitive than others, and finally whether younger consumers are more price sensitive than older consumers.

Findings for the first hypothesis can be seen in table 1. The average score for location was 3.89 (SD=1.12) with the upper score (95% confidence interval) of 3.93 and the lower of 3.85. The average score for low price was 3.86 with the upper score of 3.90 and the lower score of 3.83, and the average score for quality was 3.97 with the upper score of 4.00 and the lower score of 3.94.

Table 1: Findings for the One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Score	Interval of the Difference	
					Lower	Upper
When choosing a grocery store, location near my home is important	186.454	2890	0.000	3.89	3.85	3.93
When choosing a grocery store, low price is the most important elements	222.939	2866	0.000	3.86	3.83	3.90
When choosing a grocery store, quality is the most important elements	271.588	2872	0.000	3.97	3.94	4.00

As seen in table 1, the average score for location was higher than that of low price but lower than the average score for quality. Quality had the highest score of the three elements. Based on the 95% confidence interval, it can be stated that quality had a significantly higher score than both location near home and low price. Therefore, hypothesis 1 is rejected since location has neither a significantly higher score than low price nor quality. In fact, it seems that quality has the highest importance of these three elements. These findings are shown in figure 1.





Figure 1: Findings with a 95% confidence interval

In figure 1, the confidence interval error bars for quality do not overlap the error bars for location or low price suggesting that quality had the highest importance of the three elements when choosing a grocery store. Based on these findings, hypothesis 1 is rejected since the quality seems to be of higher importance than both location and price.

To examine whether those who had discount stores at the top of their minds (hypothesis 2) were more price sensitive than others, an ANOVA was used. Table 2 shows the findings for the recoded open question for which grocery store was top of mind.

Table 2: Findings for which store/chain is top of mind

Store/chain	Frequency	Percent
Fjarðarkaup	51	1.8%
Nettó	146	5.1%
Hagkaup	297	10.3%
Bónus	1462	50.9%
Costco	286	10.0%
Krónan	539	18.8%
Other	92	3.2%
Total	2873	100%

As shown in table 2, Bónus had the highest share of mind, but almost 51% of respondents mentioned that chain stores were top of their minds when asked. Bónus operates 32 stores all over Iceland, and the store marketing positioning is low price and simplicity. Krónan, which was named after the Icelandic currency (the Icelandic Krona, ISK), had the

second highest score in the top of mind question; 18.8% mentioned the chain when asked. Krónan operates 17 stores nationwide and, similar to Bónus, focuses its marketing efforts on relatively low price. The percentage of respondents who stated that Hagkaup was top of mind was 10.3%. Costco was noted by 10% of respondents in this category. When Costco was established in 1959, it was a discount store, but it now focuses on quality and emphasizes its wide product range. Hagkaup (translates to buying and benefits) operates 11 stores, most of which are in the greater Reykjavik area. Costco opened its megastore in March 2017 to highlight the quality of its products with a fair price. Figure 2 shows the position map when two opposite image attributes, low price and high price, are used.

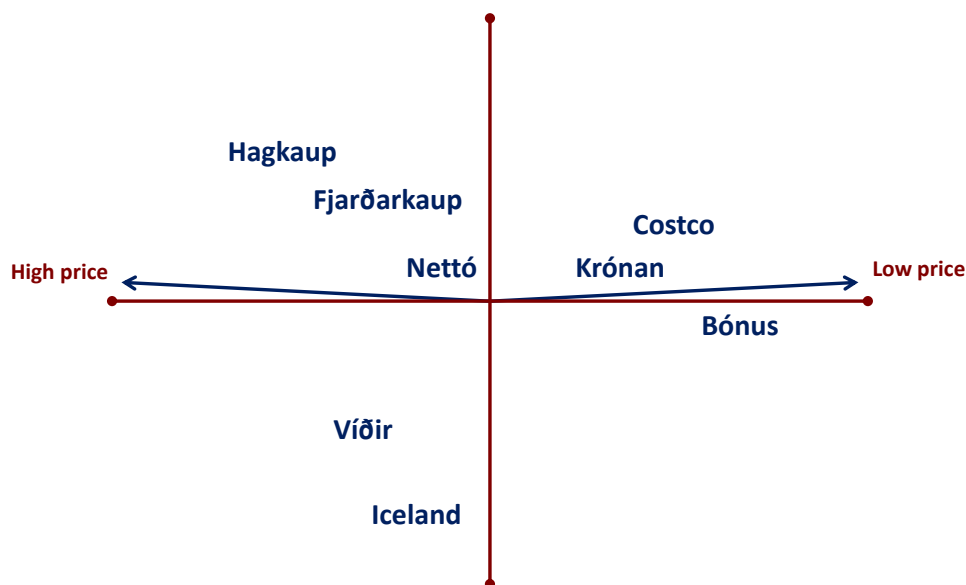


Figure 2: Perceptual map for two opposite attributes, high/low price

As shown, Bónus, Costco and Krónan were more strongly related to low price than the other brands, and Hagkaup had the strongest relation to the image attribute high price. A one-way between-groups analysis of variance was conducted to examine whether those who had discount stores at the top of their minds were more price sensitive than others. There was a statistically significant difference at the  $p < 0.05$  level within group  $F(6, 2.842, p = 0.000)$ . Post-hoc comparison using Duncan can be seen in table 3.

Table 3: Post-hoc comparison for the importance of low price based on store

		Subset for alpha = 0.05			
<b>Store/chain top of mind</b>	<b>N</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Fjarðarkaup</b>	50	3.3			
<b>Other</b>	91		3.53		
<b>Hagkaup</b>	296		3.57		
<b>Nettó</b>	145		3.63	3.63	
<b>Krónan</b>	532		3.74	3.74	
<b>Costco</b>	283			3.84	3.84
<b>Bónus</b>	1452				4.03

As table 3 illustrates, Bónus (M=3.84; SD=0.85), Costco (M=3.84; SD=1.0) and Krónan (M=3.74; SD=0.93), all at the low-price end of the market, had significantly higher scores than Hagkaup (M=3.57; SD=0.97), Other (M=3.53; SD=0.96) and Fjarðarkaup (M=3.3; SD=0.97) even though these stores are at the high-price end of the market. Based on these findings, hypothesis 2 is supported.

To examine whether younger consumers were more price sensitive than older consumers (hypothesis 3), an ANOVA was used. To begin, the original six age groups were recoded into three age groups because the numbers of respondents in the former groups were uneven. After recoding, there was the group of those younger than 31 years old (n=1,357), those who were between 31 years old (n=872) and those who were older than 50 years old (n=638). Findings indicate that there was a statistically significant difference at the  $p < 0.05$  level within group  $F(2, 17.7; p=0.000)$ . A post-hoc comparison using Duncan can be seen in table 4.

Table 4: Post-hoc comparison for the importance of low price based on age

		Subset for alpha = 0.05		
<b>Age groups</b>	<b>N</b>	<b>1</b>	<b>2</b>	<b>3</b>
<b>Older than 50 years old</b>	638	3.65		
<b>31-50 years old</b>	872		3.79	
<b>Younger than 31 years old</b>	1.357			3.9

Table 4 illustrates that the youngest age group, those younger than 31 years old, agree more with the statement than both of the older groups. It is also shown that the oldest age group, comprised of those older than 50, disagree more with the statement than both younger age groups. Based on these findings, hypothesis 3 is supported.

## 4 DISCUSSION

This paper focuses on three elements in marketing theory: price, quality and location. Three hypotheses are put forward based on these three elements.

The first hypothesis is, “The importance of location is higher than both price and quality.” Based on research findings, this hypothesis is rejected since quality was of higher importance than both price and location. This is interesting because stores at the lower price end of the market have considerably higher market shares than stores at the higher end of market. This possibly indicates that people tend to state that quality is of higher importance than price (and location), but at the end of the day, their wallets choose for them. It may also be the case that the value for the quality they get at higher-end stores is not enough, so they tend to visit lower-price stores more often. Value is simply the price one pays for the quality one gets.

The second hypothesis is, “Those who have discount stores at the top of their minds are more price sensitive than others.” Findings show that one chain, Bónus, has the highest top of mind score, and over 50% percent of respondents mention this chain. Findings also show that those who had Bónus at the top of their minds are more price sensitive than those who mention Hagkaup. These stores are on opposite ends of the price vector. Therefore, hypothesis two is supported.

The third hypothesis is, “Younger consumers are more price sensitive than older consumers.” This hypothesis is also supported since findings indicate that older respondents tended to agree less with the statement, which indicates that low price has the highest importance when choosing a grocery store.

## 5 REFERENCES

- Andersen, P.H. and Kumar, R. (2006). Emotions, trust and relationship development in business relationships: A conceptual model for buyer-seller dyads. *Industrial Marketing Management*, 35, 522-535.
- Begg, D., Fishcer, S. and Dornbusch, R. (1987). *Economics*. Singapore: McGraw-Hill.
- Birkin, M., Clark, G., Clark, M.P. and Wilson, A. (1996). *Intelligent GIS: Location decision and strategic planning*. Cambridge: Geoinformation International.
- Blomback, A. and Axelsson, B. (2007). The role of corporate brand image in the selection of new subcontractors. *Journal of Business & Industrial Marketing*, 22(6), 418-430.
- Booms, B.H. and Bitner, M.H. (1993). Marketing strategies and organizational structures for service firms. In *Marketing of Services*, eds. J.H. Donnelly and W.R. George. Chicago, AMA, 47-51.
- Brown, S. (1991). Retail location: The post hierarchical challenge. *The International Review of Retail Distribution and Consumer Research Distribution and Consumer Research*, 1(3), 367-381.
- Burnsed, B. (2009). Where discounting can be dangerous. *Business Week*, 3 August, 49.
- Byron, E. (2007). Fashion victim: To refurbish its image, Tiffany risks profits. *Wall Street Journal*, 10 January, A1.
- Chernatony, L. Harris, F. and Riley, F. (2000). Added value: Its nature, roles and sustainability. *European Journal of Marketing*, 34(1/2), 39-56.
- Chong, K.W. (2003). The role of Pricing in relationship marketing – a study of the Singapore heavy equipment spare parts industry, PhD dissertation, International Graduate School of Management, University of South Australia.
- Chosh, A. and Craig, S. (1983). Formulating retail location strategy in a changing environment. *Journal of Marketing*, 47(3), 56-68.
- Converse, P.D. (1951). Development of marketing theory: Fifty ears of progress. In *Changing the perspectives in marketing*, eds. Wales, H. Urbana, University of Illinois Press, 1-31.
- Doods, W.B., Monroe, K.B., and Grewal, D. (1991). Effects of price, brand and store information on buyers' product evaluations. *Journal of Marketing Research*, 28(3), 307-319.
- Drezner, T. (1994). Optimal continuous location of a retail facility, facility attractiveness, and market share: An interactive model. *Journal of Retailing*, 70(1), 49-64.

- Eaton, B.C. and Eaton, D.E. (1988). *Microeconomics*. New York: W.H. Freeman & Co.
- Gabor, A. (1977). *Pricing – Principles and Practice*. London: Heinemann.
- Grönroos, C. (2008). Service logic revisited: who creates value? And who co-creates? *European Business Review*, 20(4), 298-314.
- Guiltinan, J.P. and Gundlach, G.T. (1996). Aggressive and predatory pricing: A framework for analysis. *Journal of Marketing*, 60(3), 87-102.
- Hunt, S. D. (1976). The nature and scope of marketing. *Journal of Marketing*, 40(July), 17-28.
- Kalyanam, K. (1996). Pricing decisions under demand uncertainty: A Bayesian mixture model approach. *Marketing Science*, 15(3), 207-221.
- Kotler, P., Armstrong, G., Harris, L.C., and Piercy, N. (2017). *Principles of Marketing*, 7<sup>th</sup> European Edition. Harlow: Pearson Education Limited.
- Kotler, P., Leong, S.M., Ang, S.H. and Tan, C.T. (1996). *Marketing Management – An Asian Perspective*. Singapore: Simon & Schuster.
- Lauterborn, B. (1990). New marketing Litany: Four P's Passe: C-Words take over. *Advertising Age*, 61(41), 26.
- Litz, R.A. and Rajaguru, G. (2008). Does small store location matter? A test of three classic theories of retail location. *Journal of Small Business and Entrepreneurship*, 21(4), 477-492.
- Liu, L. and Li, Y. (2012). Assessing the impact of retail location on store performance: A comparison of Wal-Mart and Kmart stores in Cincinnati. *Applied Geography*, 32, 591-600.
- Lovelock, C. and Wright, L. (2002). *Principles of Service Marketing and Management*. New Jersey: Prentice Hall.
- Mazumdar, T. and Monroe, K.B. (1990). The effects of buyers' intentions to learn price information on price encoding. *Journal of Retailing*, 66(1), 15-32.
- Mazumdar, T. and Monroe, K.B. (1992). Effects of inter-store and in-store price comparisons on price recall accuracy and confidence. *Journal of Retailing*, 68(1), 66-89.
- Misra, S.R. and Trivedi, M.A. (1997). A cointegration analysis of demand: implications for pricing. *Pricing Strategy and Practice*, 5(4). 156-163.
- Stern, L.W. and El-Ansary, A.I. (1992). *Marketing Channels*, 4<sup>th</sup> Edition. New Jersey: Prentice Hall.