## CHOICE OF LOCATION FOR RETAIL BUSINESSES

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#### Abstract

Location selection is one of the key success factors of retail businesses. Location determines the number of contacts with customers, business volume and total income of retail business. To prove the hypothesis of location as the decisive factor in retail businesses, the following paper apllied scientific analysis and synthesis methods, mathematical methods and methods of interviewing. The obtained findings are based on the analysis of supermarkets locations in towns Gospić and Požega. The purpose of analysis of these practical examples is to examine to what extent retail businesses use location as a means of competitive advantage, while the method of interviewing is an attempt to answer the question of importance of location for customers when deciding on the place of purchase.

**Keywords:** retail organizations, location, competitive advantage

### 1. INTRODUCTION

Location of retail network is the basis of the overall operating system of retail businesses. A good location can compensate for management deficiencies, but even the best management cannot compensate for the shortcomings of selected venues. The subject of importance for this paper is the microlocation of retail network, and the microlocation of leading supermarket chains in the cities of Gospić and Požega. Microlocation is a fixed spot in a rural or urban environment, in a particular area within a city or settlement (Karić,

2005, p. 17). Aim of this study is to investigate whether and to what extent supermarkets in smaller cities, such as Gospić and Požega, use location as competitive weapon, that is if supermarkets in these cities decide to pursue the policy of tracking customers or the policy of attracting them (Lovreta et al, 1991, p. 200) in choice of location. Following the policy of attracting, retail chains tend to locate in close proximity to each other (to follow the competition), and constantly expand the market area as to increase the number of potential and actual customers. The policy of tracking is applied when retail chains decide to locate themselves as close as possible to potential customers, which usually means high cost investment, since they are either located in the city or its immediate vicinity. To prove the hypothesis of location as the decisive factor in retail businesses, and to ensure the applicability of the obtained knowledge, field research was conducted as well. Field research consisted of interviewing customers in the cities of Gospić (N=50) and Požega (N=41). The primary data was collected using self-administered questionnaire. A total of 91 valid questionnaires were collected. Data were collected by interviewing customers in front of supermarkets. The descriptive statistics analysis was performed to analyze data.

### 2. RESEARCH PROBLEM AND THEORETICAL BACKGROUND

One of the most important strategic decisions made by retail organizations is where to locate their operations. Because location is such a significant cost driver, the consulting McKinsey belives "location ultimately has the power to make (or break) a company's business strategy" (Bartness,1994, p. 32). Once management is committed to a specific location, many costs are firmly in place and difficult to reduce.

The location decision ofthen depends on the type of business. For retail and professional service organizations, the strategy focuses on maximizing revenue. Table 1 provides a summary of location strategies for retail organization.

Table 1 Location strategies of Service/Retail/Professional organization

REVENUE FOCUS
Volume/revenue
Drawing area; purchasing power
Competition; advertising/pricing
Physical quality
Parking/access; security/lighting; appearance/image
Cost determinants
Rent
Management caliber
Operations policies (hours, wage rates)
TECHNIQUES
Regression models to determine importance of various factors
Factor-rating method
Traffic counts
Demographic analysis of drawing area
Purchasing power analysis of area

Center-of-gravity method

Geographic information systems

### **ASSUMPTIONS**

Location is a major determinant of revenue

High customer-contact issues are critical

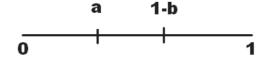
Costs are relatively constant for a given area; therefore, the revenue function is critical

Source: (Heizer & Render, 2004, p. 312)

When retail organizations make decisions about location of its facilities they must consider competitors' strategy, size, etc. A fundamental decision retail organization make is whether to locate their facilities close to competitors or far from them. How the retail organizations compete and whether external factors force them to locate close to each other influence this decision.

Hotteling was one of the first to introduce the principle of spatial competition by investigating how sellers would choose locations along linear market (cf. figure 1).

Figure 1. Two firms Locating on a Line



If total demand is 1, firm 1 locates at point a, and firm 2 locates at point 1-b, the demand of the two firms  $d_1$  and  $d_2$ , is given by following (Chopra & Meindl, 2001, p. 310):

$$d_1 = \frac{1 - b + a}{2} \text{ and } d_2 = \frac{1 + b - a}{2}$$
 (1)

Clearly, both firms maximize their market share if they move closer to each other and locate at a=b=1/2.

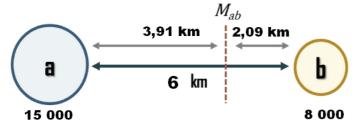
According to Hotelling's Law, there is an "undue tendency for competitors to imitate each other in quality of goods, in location, and in other essential ways" (Hotelling, 1929, p. 41). Hotelling's law explains why retailers and restaurants so often locate near one-another. The classic example is ice-cream vendors locating near one another on a beach. He used a simple model in which consumers are evenly dispersed along a line and buy from the nearest firm. The total price to the customer is thus the market price plus the transport cost (times or mony spent to go to the market). The two firms (A and B) choose to locate at the mid-point of the line. A firm that unilaterally moves away from the mid-point loses market share and profit.

In theory and practice of determining a market area of retail organization we have to mention two more laws: Reilly's law and Huff's law (Rodrigue, 2006, p. 98). The task of Reilly's law of retail gravitation (1931) is to find a point of indifference between two locations, so the market area of each can be determined. This point is assumed to be a function of the distance between two locations diveded by their respective size (population).

$$Mab = \frac{Dab}{1 + \sqrt{\frac{Pb}{Pa}}}$$
 (2)

One location can thus be more attractive than another. For instance, on figure 2 two locations in the town are 6 km apart.

Figure 2. Reilly's law



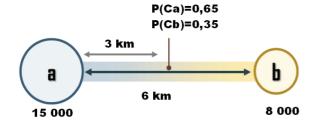
According to the Hotelling principle, the point on indifference should be halfway between (3 km). However, since loaciton A (15 000) has a larger part of town population than location B (8 000), it is assumed that it will draw more customers. Under suhch circumstances, the point of indifference is 3,91 km away from location A (cf. figure 2).

Huff's retail model (1963) assumes that customers have a choice to patronize a location in view of other alternatives and thus a market area is expressed as probabilities. The poinf of indifference becomes the point of equal probability that a customer will patronize one location or another.

$$P(Ca) = \frac{\frac{Pb}{Da}}{\sum_{a}^{n} \frac{Pa}{Dab}}$$
(3)

On figure 3, a customer has a greater chance (0,65) to patronize location A at the midpoint than to patronize location B (0,35).

Figure 3. Huff's law



As you can see the Huff's retail model leaves room for the customer choice. We can conclude that market, market, market is a more-appropriate concept for the future as retailers alike ask not "Is this a good location," but rather "Is this the best location in the market, given the competition?"

### 3. RESEARCH RESULTS AND DISCUSSION

There are six currently operating supermarkets in the town of Požega (28 209 inhabitants in the town and its surroundings). These are Getro, Kaufland, Konzum, KTC (Križevci Shopping Centre), Lidl and Plodine (cf. Map 1).

Map 1. Supermarket locations in the town of Požega

Setro
Obječka 19,
Počega

Počega

Počega

Obječka 10, Požega

Source: Authors prepared

The specified stores belong to the same category, are of almost the same range, of similar size, all of them have a parking lot and adequate access from the main road. In addition to these, there are many more smaller stores and shops in town, including drugstores, perfumeries and specialized stores. All of them have customers, but the assumption is that if purchases are made at certain intervals, they are made in supermarkets.

In Požega, 41 customers participated in the survey. 85,37% were car owners. 78,05% participants find the location important, while 21,95% do not think of location when deciding on their place of purchase. Main results are presented graphically in Chart 1.

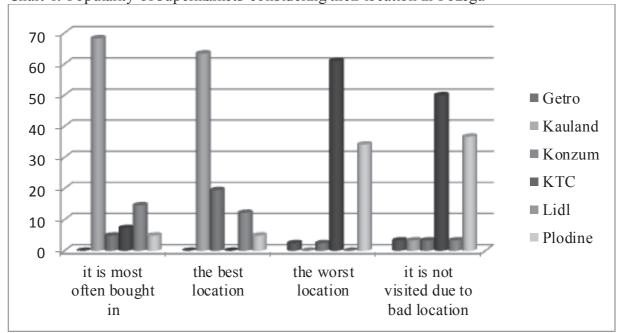


Chart 1. Popularity of supermarkets considering their location in Požega

Source: authors' research

According to our research, the most popular supermarket in Požega is Kaufland, where 68,29% of participants make their purchases. It is followed by Lidl with 14,63%, KTC with 7,32%, and finally Konzum and Plodine with only 4,88% of customers. The main reason for choosing any of the former supermarkets is location with 46,34%, followed by price 39,02% and additional contents (hair salons, pizza restaurants, perfumeries and boutiques) with 7,32%. 63,41% of participants think that Kaufland has the best location, followed by Konzum with 19,51%, Lidl with 12,2% and Plodine with 4,88%. Participants explained their choice of Kaufland's location was the result of easy access from the main road via roundabout, proximity to the town centre, the possibility of coming by foot, proximity to the bus and the train station, and the large parking area.

According to our research, supermarkets in Požega with the worst location are KTC with 60,98% and Plodine with 34,15%. Explanations for chosing KTC as the worst include great distance from the town centre, location on secondary road, no possibility to arrive by public transport, nor the possibility of coming by foot because of distance from the town, and thus being suitable only for residents in the immediate proximity of the supermarket. Consumers who choose KTC, come specifically because of prices. The location of Plodine was the topic of many discussions in Požega since the opening. Like KTC, Plodine is far away from the town centre, but there is also the problem of poor transport regulations.

The presented results evidently indicate that location of supermarkets in Po žega represents a significant competitive advantage. This is also confirmed by 73,17% of participants claiming the main reason of avoiding a supermarket is down to location. Of these, as many as 50% said the supermarket they avoid is KTC, because it is never along the way, there is no additional content and the distance from the town is too great. Fewer participants (36,67%) said the same for Plodine, adding the already mentioned poor transport regulations.

It might be stated that most of the supermarkets in Požega were pursuing the independent policy of attracting customers in their choice of location, while Kaufland put

greater emphasis on the tracking strategy. Therefore, it is not surprising that the majority of participants chose Kaufland's location as the best in Požega. This could be confirmed by participants' relatively good evaluation of Konzum and Lidl, located near Kaufland, apparently in attempt to mutually expand the market area.

In the town of Gospić (12 792 inhabitants by the year 2010), there were six supermarkets as well. Following the arrival of other supermarkets in town, Billa was forced to close their 760 m² supermarket in 2005 due to poor business performance. Currently, there are five operating supermarkets in Gospić. These are Plodine (Budačka Street), Lidl (Budačka Street), Konzum Maxi (Zagreb Street), Konzum (S. Radić Square) and Vrkljan (Smiljanska Street) (cf map 2).

Map 2. Supermarket locations in the town of Gospić

Source: Authors prepared according to Google maps [available at https://maps.google.com/maps/, access 15.08.2013.]

In Gospić, there were 50 participants of our survey. 85,55% of them were car owners. Importance of location was confirmed by 89,05%, while the other 10,95% put no emphasis on location. The main results are shown by Chart 2.

According to our survey, the most popular supermarket in Gospić is Konzum (S. Radić Sq.) with 48% participants shopping there. It is followed by Plodine with 20%, Lidl with 20%, Konzum Maxi with 11% and Vrkljan with only 1%. Main reason for choosing these supermarkets is price with 65,53%, while location is the most important for 34,47% of participants. The best located is Konzum with 34% (S. Radić Sq.), followed by Lidl and Plodine with equal 28%, Konzum Maxi with 9% and Vrkljan with 1%. Interesting to notice, the identical percentage of participants have chosen Lidl and Plodine (located across from

each other). This location is easily accessed from the main road, the town centre is nearby, customers often shop in both supermarkets at the same time, it is close to workplace and has a large parking area.

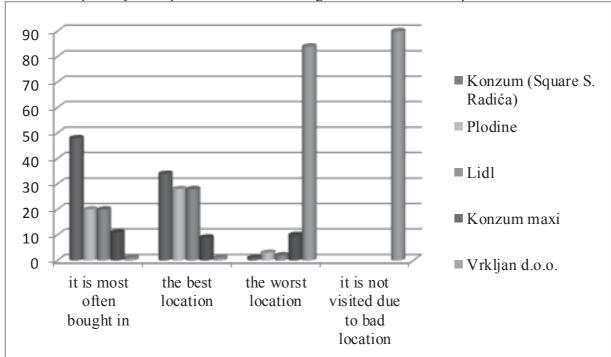


Chart 2. Popularity of supermarkets considering their location in Gospić

Source: authors' research

According to our survey, Vrkljan has the worst location in Gospić with 84%, Konzum Maxi with 10%, Plodine with 3%, Lidl with 2% and Konzum (S. Radić Square) with 1%. Given explanation of bad location is great distance from the town centre, so the supermarket is almost inaccessible by foot and thus only suitable for residents in the immediate vicinity.

These results apparently show the importance of location as a significant competitive advantage in Gospić. The significance of location is confirmed by 90,98% of participants who claim the main reason of avoiding a supermarket is location. Supermarkets in Gospić have mainly decided on the policy of attracting (Lidl, Plodine, Konzum) and the policy of tracking (Konzum). Most supermarkets are easily accessible. Our research shows that in order to increase competitiveness Lidl focused on microlocation and pricing strategy, while Plodine is the most comfortable shopping place.

#### 4. CONCLUSION

Many of the issues with choice of location for retail businesses can be pinned down by profit maximization rule, where revenues of a retail store depend on intensity of competition in its vicinity. For purposes of this paper, the above-mentioned supermarkets are of approximately the same size, so their revenues could be regarded as inversely proportional to distance from the customers. Results of this study support the above claim and confirm the importance of location; as demonstrated, location is the competitive

weapon of supermarkets in smaller towns such as Požega and Gospić. Importance of location was stated by 83,5% of participants (N=91). In both towns, the least visited supermarkets were those adversely situated, while the most popular were those with best perceived locations. Location analysis of supermarkets in Gospić and Požega confirmed that retail chains use location as a competitive weapon, but they are also trying to locate in close proximity. This is especially true for supermarkets in Gospić, less so in Požega. Using location as a competitive weapon is far greater in Požega. The reason for this may be found in size of both towns – since Gospić is smaller, chances to succeed may be increased by pursuing the policy of tracking. Location decisions of Kaufland in Požega and Konzum in Gospić were probably made in line with the policy of tracking customers, though it should be noted that choice of Stjepan Radić Square for Konzum is also due to the proximity of then still operating Billa.

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