E/B/R ECONOMIC AND BUSINESS REVIEW

Volume 11 | Issue 3 Article 3

12-31-2009

Sustaining the challenge from the outskirts: city centre retail viability in Ljubljana, Slovenia

Andreja Cirman

Marko Pahor

Recommended Citation

Cirman, A., & Pahor, M. (2009). Sustaining the challenge from the outskirts: city centre retail viability in Ljubljana, Slovenia. *Economic and Business Review, 11*(3). https://doi.org/10.15458/2335-4216.1268

SUSTAINING THE CHALLENGE FROM THE OUTSKIRTS: CITY CENTRE RETAIL VIABILITY IN LJUBLJANA, SLOVENIA

ANDREJA CIRMAN*
MARKO PAHOR

ABSTRACT: *Like many other cities, Ljubljana is no exception to changes in its retail landscape. With retail suburbanisation, the city centre's monopoly as a shopping district has been lost. Our paper studies customer-perceived shopping area attributes and their impacts on patronage. The conceptual framework is set up to investigate factors that draw consumers to different shopping areas. The model was tested on a sample of consumers to evaluate the importance of various shopping area attributes and their performance in two decentralised shopping areas and the downtown shopping area in Ljubljana, Slovenia.*

Keywords: *Town centre; Commercial centre; Revitalisation; Urban regeneration; Shopping experience; Patronage behaviour; Slovenia*

UDC: 339.37: 911.375.4(497.4)

JEL classification: L81; R31

1. INTRODUCTION

In the past few decades, the retail landscape in transition countries has followed the pattern of developed countries whereby changes in the nature of consumer demand, increasing availability of private automobiles, concentration of the retail industry, and competitive pressures for innovation on the supply side mediated by the regulatory and planning environment have led to the decentralisation of retail geography (Dawson, 1983; Thomas and Bromely, 2002). Shopping centres in the form of retail parks, free-standing superstores and hypermarkets have emerged on the outskirts of most towns and cities. They have become important urban spaces and social focal points. They attract increasingly sophisticated and demanding consumers by integrating consumption and leisure, with a climate-controlled one-stop shopping experience offering longer hours, along with a contemporary and safe shopping environment (Arnold and Luthra, 2000; Thomas and Bromely, 2002; Taylor et al., 2003).

* Crresponding author: Email: andreja.cirman@ef.uni-lj.si
Both: University of Ljubljana, Faculty of Economics, Kardeljeva ploščad 17, 1000 Ljubljana, Slovenija

However, retail suburbanisation can have negative social and economic effects on existing commercial centres. By losing its monopoly on comparison shopping (Schiller, 1987), retail activity in town centres is at risk. Among the variety of functions of urban centres – commercial, retail, residential, social, and cultural – retail activity is regarded as one of the most important for viability and vitality (Warnaby and Davies, 1997; Warnaby et al., 2002; Dixon 2005; Warnaby and Bennison, 2006). This is a dynamic relationship that affects several stakeholders: consumers, retailers and other businesses, citizens, communities and governments (Arnold and Luthra, 2000). Therefore, its importance for urban regeneration and revitalisation cannot be underestimated.

Today, the relationship between traditional downtown shopping areas and decentralised shopping centres is not regarded as complementary, but as highly competitive (Thomas et al., 2004). This relationship calls for an appropriate reaction from urban stakeholders responsible for town centre development. In order to implement effective measures, they must build on consumers satisfied with the shopping experience offered by the downtown shopping area and they must know the determinants of customer satisfaction and patronage behaviour.

Our paper studies customer-perceived shopping area attributes and their impacts on patronage. The conceptual framework is set up to investigate factors that draw consumers to different shopping areas. The model was tested on a sample of consumers to evaluate the importance of various shopping area attributes and their performance in two decentralised shopping areas and the downtown shopping area in Ljubljana, Slovenia.

2. DEVELOPMENT OF THE RETAIL LANDSCAPE IN LJUBLJANA

The trends described above have also affected the retail landscape in Ljubljana, the capital of Slovenia. Ljubljana is a dynamic Central European city lying in a broad basin between the Alps and the Adriatic Sea. It has an area of 275 km² and a population of 267,000 (Statistical Yearbook 2006). Ljubljana generates about 25 percent of Slovenia's GDP. The economy has always been quite heterogeneous, enabling it to adapt rapidly to the ever-changing environment of the world economy. The unemployment level is relatively low (the ILO unemployment rate for Slovenia in 2005 was 6.5 percent and Ljubljana is well below the Slovenian average). The share of the working population is 62 percent and, of the total that are employed, half are women, 64 percent work in the private sector, and the rest work in the public sector (according to statistics for 2003; data from Statistical Yearbook 2006). Manufacturing (pharmaceuticals, petrochemicals, food-processing) is still the most important employer in the city, followed by retail, financial and other business services, transport and communication, construction, skilled trades and services, and tourism and catering.

The city's strong economic position is reflected in the growth of retail space, which has been rapidly expanding since 1997. Most retail expansion has taken place in the form

of suburban shopping centres, causing structural changes by reducing the actively used retail space in the city centre and through the rapid disappearance of small dispersed stores in residential areas. According to a shopkeeper survey, this trend is likely to continue in the future (Koren et al., 2003).

In Ljubljana, the retail area expanded by 38 percent from 1999 to 2002. The per capita area in 2000 was 1.2 m² and grew to 1.7 m² by 2003 (Koren et al., 2003). However, from 1999 to 2002 the city centre lost 3.2 percent of its active retail area and the number of stores dropped by 5.4 percent. In 2003, decentralised shopping areas already represented 45 percent of the total retail space, with the city centre squeezed to encompass just 18 percent of all retail space (Stanovnik et al., 2001; Koren et al., 2003).

Two large shopping centres have been established in Ljubljana. In northeast Ljubljana there is the BTC shopping area, which is the largest decentralised shopping district. It is located alongside the city freeway ring road and only 2.5 km from the city centre. It is easily accessible by car and bus. It has approximately 105,000 m² of retail area and integrates several large stores in its vicinity. This shopping centre includes over 400 stores, an open market, and many entertainment and leisure facilities such as a multiplex cinema and theatre, a water park, a bowling alley, fitness and wellness facilities, and several restaurants. The shopping centre has a lot of outdoor and garage parking. Most of this shopping area is managed by the BTC company and every year it serves more than 18 million visitors.[1]

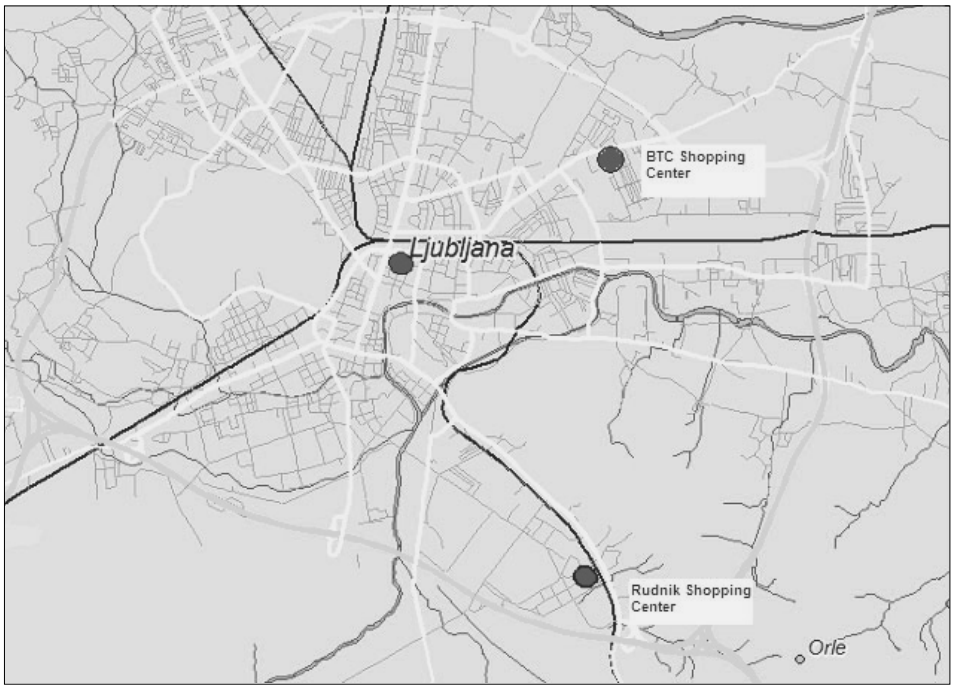
The second-largest centre in Ljubljana is Rudnik in southeast Ljubljana It is also located by the freeway ring road, but is much further into the suburbs than BTC and farther from the city centre. Until recently[2] it was only accessible by car because no public transport used to run near it. However, its location makes it very convenient for the large number of daily commuters who live in rapidly growing towns in the south-eastern part of the greater Ljubljana region. The Rudnik shopping centre has some 65,000 m² of retail area, 40 large stores, several boutiques and a lot of parking, but lacks the variety of sports, leisure and entertainment facilities and the food market offered at BTC.[3] In contrast to BTC, the Rudnik shopping centre is also not centrally managed by a single company.

[1] Information about the BTC shopping area was retrieved from BTC's website in 2007: http://www.btc.si/vsebina.php?idm=402.

[2] At the time of the survey this was still the case.

[3] Information about the Rudnik centre was provided in 2007 by the Rudnidis company (the representative of E.Leclerc, the largest retailer at the Rudnik shopping centre).

FIGURE 1: *Location of the three shopping centres*



Both decentralised shopping areas have hypermarkets as their chief magnets (BTC with Interspar and Rudnik with E.Leclerc). On the other hand, the main magnet of the city centre's shopping area is the open market. The total retail area in the city centre amounts to 80,000 m² and is characterised by a broad and specialised selection of goods offered in small shops and in a few large department stores. This retail capacity is also supplemented by numerous cultural activities offered in theatres, the opera, and museums as well as a wide selection of bars and restaurants. Although the city centre is also a hub for public buses that serve the city, it has a shortage of parking and often experiences traffic jams.

3. CONCEPTUAL FRAMEWORK

The literature defines consumer satisfaction as an emotional response to the experiences provided by and associated with particular products or services purchased, retail outlets, or even molar patterns of behaviour such as shopping and buyer behaviour, as well as the overall marketplace (Westbrook and Reilly, 1983). It is an evaluation process in which the perceptions of (or beliefs about) an object, action or condition are compared to one's values (or needs, wants and desires). With the growth of the shopping centre industry, various studies have dealt with models of shopping centre patronage and consumer satisfaction based on revealed consumer preferences (see, e.g., Nevin and Houston, 1980; Ahn and Ghosh, 1989; Severin et al., 2001; Wong et al., 2001; Frasquet et al., 2001; Leo

and Philippe, 2002; Sit et al., 2003; Anselmsson, 2006). As a result of these studies, much is known about which factors draw consumers to different shopping areas.

In economics literature, Huff's (1962) basic gravitational model proposed that the drawing power exercised on the consumer by a retail centre is proportional to the size of the retail centre and inversely proportional to the distance involved. Gautschi (1981) points out that Huff's model with its two-variable specification is too parsimonious; additional centre descriptors as well as transportation mode characteristics significantly contribute to explaining the patronage of alternative retail centres. In addition, Eppli and Shilling (1996) show that the size of a centre (relative to its competition) may be a much better determinant of the overall success of the centre than its location relative to competing centres. However, a study by Okoruwa et al. (1988) that incorporates more characteristics of stores and consumers into the retail model even contradicts the findings of previous models with a negative influence of retail centre size on the patronage model. By further developing the retail gravity model, Lee and Pace (2005) indicate that, by incorporating spatial dependencies among consumers and retailers into the model, the importance of the distance parameter, as established by previous studies, may be greatly understated and therefore the importance of a good location may be underestimated.

Marketing literature also highlights the importance of image and inter-store externalities. Nevin and Houston (1980) show that, where there are differences in consumers' perceptions of different shopping centres, a retail centre's size might not be an appropriate measure of its attractiveness. They further developed the retail gravity model by adding the intra-urban shopping centre image and specific store variable (anchor-store effect) to the model and showed that both general image and special store image have a strong effect on consumer preferences for a shopping centre. Studies following the work of Nevin and Houston (1980) further build on the assumption of a global service provided by a shopping centre. Consumer satisfaction is built upon the distance (access) and multidimensional quality attributes attached to the shopping site (for an overview of the quality attributes used in recent research, see Table 1). Applying what Spiggle and Sewall (1987) considered to be a general model of retail selection research to shopping centres, the choice and patronage patterns are results of processes in which consumer perceptions, images and attitudes to shopping centres are formed and reformed based on experiences, information and consumer needs. They grouped factors influencing shopping centre choice, patronage or preference into three groups: consumer psychological states, consumer characteristics, and retail outlet features.

This paper studies the determinants of shopping centre patronage behaviour. However, even if consumers tend to prefer one shopping centre, they may go to another as often or even more often simply for convenience or similar reasons. Thus we use the actual frequency of visiting shopping centres to construct the dependent variable and relate it to consumer perceptions of attributes of the selected shopping areas (retail outlet features), consumer characteristics and consumer psychological states. Yavas (2003) pointed out that research on shoppers' motives typically considers the importance rather than the 'performance' of a particular shopping centre. Therefore, our model tries to integrate

both the importance and performance of each attribute of shopping area patronage behaviour.

TABLE 1: *Attributes used in recent shopping centre research*

	Study focus	Image dimensions	Significant dimensions
Severin et al. (2001)	Determinants of retail shopping choices over time and across countries	9 attributes: good quality, wide selection, good service, convenient location, low prices, high prices, latest fashion, nice atmosphere, good sales, bargains	Good quality, wide selection, good service, convenient location, low prices, nice atmosphere, good sales, bargains
Wong et al. (2001)	Formulation of an instrument to assess perceived shopping centre attractiveness	5 dimensions: location, quality and variety, popularity, facilities, sales incentives	Location, quality and variety, popularity, facilities, sales incentives
Frasquet et al. (2001)	Determinants of shopping centre preference	4 dimensions: retail offer, atmosphere/leisure, accessibility, efficiency	Retail offer, atmosphere/ leisure, accessibility, efficiency
Leo and Philippe (2002)	Components of consumer satisfaction and visit frequency	4 dimensions: retail mix, pricing, environment, accessibility	–
Sit et al. (2003)	Identification of shopping centre image attributes and market segmentation of shopping centre patrons	6 dimensions: micro-accessibility, personal service, amenities, 'ambulance' (i.e., ease of access), atmospherics, security	–
Anselmsson (2006)	Determinants of consumer satisfaction and visit frequency	8 dimensions: atmosphere, selection, refreshments, promotional activities, convenience, sales people, merchandising policy, location	Atmosphere, selection, refreshments, promotional activities, convenience, sales people, merchandising policy, location

4. RESEARCH DESIGN

The research focuses on three shopping areas in Ljubljana: BTC, Rudnik, and the city centre. The survey was designed based on a review of the literature dealing with the determinants of shopping behaviour (see Table 1), the results of a study by Stanovnik et al. (2001), the outcomes of a focus group survey in the research project 'Retail in Ljubljana in 2002' (Koren et al., 2003), and the results of preliminary survey testing. The survey questionnaire had six parts. In the first part, consumers were asked to evaluate the importance of a set of shopping centre attributes on a five-point scale. The second part of

the survey consisted of questions regarding perceived distance to the shopping centre (measured as consumer perception of the travel time to each shopping destination). This was followed by questions on the frequency of consumers' shopping and entertainment/restaurant visits. The fourth part assessed the performance of attributes in each of the three selected shopping areas. The attributes were evaluated on a five-point scale. The fifth part of the survey contained questions regarding customers' shopping behaviour, while the last part captured respondents' demographic data.

The data were collected through a telephone interview of a random sample of households in the greater Ljubljana urban region in September 2005 based on accessibility by telephone land lines and publicly available mobile phone numbers. The response rate for the telephone interview was 46%. The use of telephone interviews could introduce a certain bias into the analysis for two reasons. On one hand, the publicly available telephone directory lacks many land line and mobile phone numbers because the subscribers do not want them to be listed. The second bias arises from the fact that shopping centres and the city centre also attract many tourists who were not interviewed using the telephone interview as a data collection method. This bias might overly represent the preferences of relatively less mobile (and probably also older) persons.

In each household, the person who does most of the shopping was asked to participate in the telephone interview. The final sample of 201 respondents therefore comprised 72% women. The age of the respondents ranged from 18 to 82, with an average of 51 years. The average respondent came from a household with three members, one of whom was a child. The average monthly personal income of the respondent was above the mean Slovenian income, but about average for the capital. There was no information on the exact geographical location of the respondents. They all came from the Ljubljana urban region. On average, they lived a good 15 minutes via usual transport from the city centre (mean 15.8 minutes, median 15 minutes, mode 10 minutes), somewhat farther away from BTC (the average distance was 19.4 minutes, mode and median both 15 minutes), and they were the farthest away from Rudnik (22.7 minutes on average, mode and median both 20 minutes).

TABLE 2: *Sample demographics*

	Mean	Std. Deviation	Minimum	Maximum
Age	51.1	16.1	18	82
Personal monthly income (EUR)	825.3	494.1	0	3,125
No. of household members	2.9	1.3	1	8
No. of children	0.4	0.9	0	6
Gender (share of male respondents)	0.18			
Distance from city centre (minutes)	15.83	10.85	0	60
Distance from BTC (minutes)	19.36	14.30	3	60
Distance from Rudnik (minutes)	22.67	19.46	2	120

The first step of our analysis consisted of an explorative factor analysis of the importance of weighted shopping centre attributes as ranked by the respondents. The results of this analysis were also used to construct the scales for the performance of each shopping centre. This step further involved an exploratory factor analysis of shopping attitudes. In the second step, we constructed an indicator of the preferred shopping centre (dependant variable) based on the frequency of actual visits made by the respondents to each centre. The third step tested how consumer characteristics (demographics), psychological states (shopping attitudes) and characteristics of shopping centres influence the frequency of consumers' visits. The testing methodology involved a multiple regression with a hierarchical selection of variables. The approach to the regression was multilevel whereby certain variables occur at the respondent's level and others occur at the respondent-centre's level. Each respondent was represented in the sample three times, once for each of the centres he or she responded for. The total number of cases in the regression was thus 603. We accounted for repeating respondents by including centre dummies in the regression and took the responses for the city centre as the base case. We also included the cross-effects for the centre characteristics: the distance and centre attributes.

5. RESULTS

Exploratory factor analysis was performed on the importance-weighted shopping centre attributes. The results are summarised in Table 3. The method used was Principal Axes Factoring with a Varimax rotation. The results presented are the factor loadings bolded for the appropriate dimension. The extracted dimensions are used in the subsequent analysis as factor scores obtained with the Anderson-Rubin method.

In order to incorporate importance and performance aspects of various shopping centre attributes in the analysis as noted by Yavas (2003), we used importance-weighted shopping centre attributes. As suggested by Wu (2008), we calculated the weights for the importance of each attribute by dividing the importance of each individual attribute by the mean importance of all attributes for a given individual. We used these weights to multiply the performance scores for each centre attribute.

Exploratory factor analysis shows that the importance-weighted shopping centre attributes have three dimensions. The first, 'amenities', includes a series of attributes from entertainment facilities, special events and catering to the general atmosphere of the centre, and encompasses activities and facilities supporting the integration of leisure and shopping. The second dimension is 'convenience' and includes attributes such as availability of parking, ease of access, and the one-stop-shopping attribute, and links together attributes of efficiency in consumers' shopping activities. The third dimension is the 'quality of retail service' dimension which includes the quality of goods, a clean environment, friendliness of staff and the variety of merchandise. This dimension integrates the attributes measuring the quality of the core retail service.

TABLE 3: *Results of the exploratory factor analysis of importance-weighted shopping centre attributes*

	Amenities	Convenience	Quality of retail service	Cronbach's alpha
Entertainment facilities (cinema, theatre etc.)	**0.766**	0.060	−0.020	
Special events, exhibitions, promotions etc.	**0.625**	0.000	0.121	
Good place to spend time with children	**0.602**	0.209	0.165	0.803
Presence of catering facilities	**0.589**	0.031	0.068	
Upscale shops	**0.585**	−0.072	0.153	
Atmosphere in the centre	**0.576**	0.115	0.421	
Availability of parking	−0.169	**0.795**	0.111	
Easily accessible centre	0.051	**0.685**	0.249	0.763
One-stop shopping	0.195	**0.649**	0.190	
Low prices	0.115	**0.416**	0.405	
Quality of goods in shops	0.057	0.085	**0.677**	
Clean environment	0.095	0.274	**0.661**	0.725
Friendly staff	0.181	0.143	**0.541**	
Wide variety of merchandise	0.224	0.329	**0.461**	

Using the results obtained, we computed the three scales used in the subsequent analyses. The scales were tested using Cronbach's alpha and with scores from 0.73 to 0.80 they proved to be reliable.

TABLE 4: *Results of the exploratory factor analysis of shopping attitudes*

Factor	Variable	Factor loading	Cronbach's alpha
Love of shopping	Shopping is fun	0.915	0.823
	I like to shop	0.720	
Ethnocentrism	I prefer domestic products	0.763	0.762
	Everyone should buy domestic products	0.713	

When performing exploratory factor analysis on shopping attitudes, we found two reliable scales, each composed of two items. The first scale is 'Love of shopping' and the second 'Ethnocentrism.' The results are found in Table 4.

We measured the preference for a particular shopping centre with the frequency of annual visits to that centre. According to the survey results, BTC is the most frequently visited shopping centre with more than one visit on average every two weeks. The city centre is slightly below the average BTC frequency. Rudnik, with less than one visit per month on average, has fewer than half the number of visits compared to the city centre and BTC (Table 5). Rudnik is the most distant[4] shopping centre (in minutes of usual transport), with almost 23 minutes on average spent to reach it, whereas the city centre is on average the closest to the respondents.

[4] The distance was calculated as the average distance for all respondents. Each respondent was asked to estimate travel time to each of the centres in minutes by usual transport (car, bicycle, bus etc.)

TABLE 5: *Shopping centres' characteristics as ascribed by respondents: arithmetic means and (standard errors)*

	City centre	BTC	Rudnik
Visits per year	24.6 (1.8)	27.3 (1.7)	11.4 (1.1)
Distance from centre (minutes)	15.8 (0.8)	19.4 (1)	22.7 (1.4)

From the descriptive data in Table 6 it is possible to see differences in the ranked importance-weighted shopping centre attributes for certain centres. Significant differences offer an insight into reasons for the differences in the frequency of visits. Rudnik scored significantly lower on all of the attributes that form the 'amenities' dimension, as well as on the scale composed of these items. On the other hand, the city centre appears to be the least convenient of all the centres because it scored significantly lower on all of the attributes that form the 'convenience' dimension, as well as on the scale composed of these items. BTC has a slightly lower perceived score (non-significant) on amenities than the city centre and is slightly more convenient than Rudnik. However, it offers the best perceived quality of retail service.

TABLE 6: *Shopping centres' characteristics as ascribed by respondents: arithmetic means and (standard errors)*[5]

	City centre	BTC	Rudnik
Amenities	**2.37 (0.11)**	**2.34 (0.10)**	*1.69 (0.09)*
Entertainment facilities (cinema, theatre etc.)	1.84 (0.10)	1.95 (0.10)	*0.89 (0.07)*
Special events, exhibitions, promotions etc.	**2.41 (0.10)**	2.02 (0.09)	*1.38 (0.09)*
Good place to spend time with children	2.31 (0.12)	**2.59 (0.12)**	*2.01 (0.12)*
Presence of catering facilities	2.27 (0.12)	2.25 (0.10)	*1.70 (0.10)*
Upscale shops	**2.38 (0.11)**	2.13 (0.10)	*1.41 (0.08)*
Atmosphere in the centre	3.02 (0.10)	3.10 (0.09)	*2.74 (0.10)*
Convenience	*2.71 (0.12)*	3.93 (0.09)	3.77 (0.10)
Easily accessible centre	*3.06 (0.13)*	**4.05 (0.08)**	3.97 (0.10)
Availability of parking	*2.09 (0.13)*	4.07 (0.09)	4.17 (0.10)
One-stop shopping	*2.75 (0.12)*	4.01 (0.09)	3.47 (0.10)
Low prices	*2.95 (0.10)*	3.57 (0.09)	3.47 (0.10)
Quality of retail service	3.63 (0.10)	**3.88 (0.07)**	3.61 (0.09)
Quality of goods in shops	3.81 (0.08)	3.72 (0.07)	*3.55 (0.09)*
Clean environment	3.42 (0.10)	**3.80 (0.08)**	3.58 (0.09)
Wide variety of merchandise	3.60 (0.10)	**4.11 (0.07)**	3.66 (0.09)
Friendly staff	3.69 (0.09)	3.87 (0.07)	*3.64 (0.09)*

Boldface numbers denote significantly (0.05 significance) higher values than the other two locations. Underlined italics denote significantly lower values.

[5] Measured on a five-point scale; (1 = not important at all, 5 = very important)

We analysed consumer patronage motives with four regression models, using frequency of visits as a dependent variable. The first model included distance from the centre, importance-weighted centre attributes, and the two location dummies as independent variables. It is evident that, compared to the city centre and BTC, Rudnik is much less frequently visited. Surprisingly, when controlling for perceptions of shopping centre attributes and distance, BTC is also less frequently visited than the city centre. This indicates that the city centre may have an appeal beyond the perceptions of the listed shopping centre attributes. As expected, distance negatively influences visit frequency and is also the strongest factor influencing the frequency of visits. The amenities of the centre and its convenience positively contribute to frequency and have a similar impact on patronage, whereas the quality of goods and services does not seem to have a significant influence.

TABLE 7: *Results of regression models for the frequency of visits*

Variable	**Model 1**		**Model 2**		**Model 3**		**Model 4**	
(Constant)	-0.170 (-4.7)	***	-0.160 (-4.3)	***	-0.156 (-4.2)	***	-0.321 (-3.1)	**
Distance from the centre	0.163 (4.1)	***	0.173 (4.2)	***	0.128 (2.9)	**	0.133 (3.0)	**
Amenities	0.115 (2.5)	*	0.119 (2.6)	*	0.106 (2.3)	*	0.074 (1.6)	
Convenience of the centre	0.000 (0.0)		-0.003 (-0.1)		-0.020 (-0.5)		-0.044 (-1.2)	
Quality of goods and service	-0.116 (-2.2)	*	-0.121 (-2.3)	*	-0.116 (-2.3)	*	-0.051 (-0.6)	
BTC	-0.405 (-7.5)	***	-0.407 (-7.5)	***	-0.415 (-7.7)	***	-0.530 (-7.2)	***
Rudnik			0.010 (0.3)		0.023 (0.6)		0.022 (0.6)	
Income			-0.056 (-1.5)		-0.061 (-1.6)		-0.062 (-1.6)	
Age					-0.006 (-0.2)		0.005 (0.1)	
Ethnocentrism					0.124 (3.1)	**	0.139 (3.5)	***
Love of shopping							-0.037 (-0.4)	
Distance * BTC							0.269 (2.4)	*
Distance * Rudnik	-0.17 (-4.7)	***	-0.16 (-4.3)	***	-0.156 (-4.2)	***	-0.321 (-3.1)	**
Adjusted R2	**0.228**		**0.229**		**0.239**		**0.256**	

* Significant at 0.05; *** significant at 0.01; *** significant at 0.001

The second model adds two demographic variables (income and age) to the first model. Both variables are non-significant; their inclusion also does not change the sign and significance of variables in the first model. The third model also incorporates respondents' shopping attitudes. Whereas 'love of shopping' significantly increases the frequency of visits, ethnocentric behaviour does not influence it. The inclusion of these two variables also leaves the rest of the model largely unchanged.

The fourth model included the cross-effects of the two location dummies and distance from the centre. The cross-effect for Rudnik was statistically significant and positive, which shows that Rudnik draws in a higher frequency of visits than would be expected given the average distance of respondents from this centre. The cross-effect for BTC is

non-significant. The inclusion of these two cross-effects causes the BTC main effect to become non-significant; the same happens to the effect of convenience. We believe this non-significance is largely due to multicollinearity.[6]

The results therefore show that the main determinant of shopping centre popularity, measured by the frequency of visits, is distance. Amenities and convenience also draw people to a centre. The analysis also points to the 'special appeal' of the city centre, which has a greater number of visits than one would expect given the distance and perceived attributes.

6. DISCUSSION

Like many other cities, Ljubljana is no exception to changes in its retail landscape. With retail suburbanisation, the city centre's monopoly as a shopping district has been lost. In the context of the 'competitiveness' and 'vitality' of old city centres, Welteverden et al. (2005) argue that it is important to distinguish between price competition and Schumpeterian competition. In terms of price, city centres cannot compete with the rental costs of out-of-town locations; the city centre remains attractive as a retail location only by being successful in Schumpeterian competition (Weltewerden et al., 2005, p. 825). Therefore, it is important to develop a unique and complimentary set of competencies, to focus on the city centre's comparative advantages in order to build a strategically strong position, and to withstand aggressive pressure for decentralisation. Because there are clear advantages in economies of scale in large retail centres and advantages for consumers in the form of increased product range and lower prices (Guy and Bennison, 2002), the city centre must base its strategic positioning on benefits to consumers (Besanko et al., 2004).

In Ljubljana, the BTC shopping district in particular has evolved as a very strong competitor for consumers. Although at present the city centre is still attracting many consumers, fierce competition for consumers will continue. BTC's competitive position, building on the quality of the core retail service, easy accessibility by car, and giving people the opportunity to combine shopping with leisure (especially those with children), is strong. On the other hand, Rudnik's competitive position is not so much in direct competition with the city centre. It is predominantly used by the daily commuters who work in Ljubljana and live in Ljubljana's south-eastern suburbs. Not being centrally managed, Rudnik significantly lacks complementary leisure activities.

The city centre's advantages lie in the presence of upscale stores and the variety of leisure activities. In comparison with both competitors, it has an advantageous position compared to Rudnik, and a similar position to BTC regarding amenities that strongly contribute to visit frequency. Its historical centre with the riverside also attracts many tourists who add to the vibrancy of the city centre and might contribute to that 'special

[6] In the model estimation we also estimated a model with cross-effects between location and perceived centre attributes. None of the cross-effects are statistically significant, which indicates the homogenous influence of the attributes among the selected shopping centres. The results are available from the authors.

appeal' evident in the empirical models. However, the greatest threat to its position is its accessibility and convenience, and the absence of central management. Traffic jams and the lack of parking all add to the relative distance perceived by consumers (the time needed to reach the centre), which most strongly impacts on visit frequency and perceived convenience.

For Ljubljana, as with every other city, it is important for the city management to strengthen the strategic position of the city centre as a shopping district in order to have a vital city centre. The practices of introducing more restrictive urban planning – as applied, for example, in the UK or the Netherlands (Guy and Bennison, 2002; Welteverden et al., 2005) to prevent city centre retail from losing consumers – might have limited success. Although it deters the emergence of decentralised shopping centres, it also curtails competition between retailers and different formats to the detriment of consumers.

In order to strengthen the competitive position of the town centre to the benefit of consumers, the town centre must develop competitive advantages compared to decentralised shopping centres. Town centre management has emerged as a practical, implementable and effective way to manage this process (Tomalin and Pal, 1994). It is a 'holistic' approach to the issues the city centre faces. According to Tomalin and Pal (1994), the 'town centre manager is the public face of the mission statement for the town centre.' With dispersed shop owners, the town centre management body is the central connection for city centre stakeholders and an important step towards developing an entrepreneurial city in which 'key interest groups in the private, public and voluntary sectors develop a commitment to realizing a broadly consensual vision of urban development, devise appropriate structures for implementing this vision and mobilise both local and non-local resources to it' (Parkinson and Harding, 1995, pp. 66-67).

Ljubljana has not implemented effective city management yet. The association of the city centre's retailers is trying to play a co-ordinating role. However, as Warnaby et al. (2002) established, the retail provision of towns and cities is marketed not only by retail-oriented urban stakeholders but also as a secondary (but important) product element for a range of other urban stakeholders. Therefore, the association cannot implement and support the 'holistic approach' needed for city management to be effective and properly enable the city centre to face competitive challenges from decentralised shopping centres. The strategic advantages of the competitive BTC due to its accessibility by car, clean environment and wide variety of merchandise can only be neutralised by a co-ordinated approach involving city authorities, retailers and other stakeholders. As Welteverden et al. (2005) argue, the city centre cannot compete on low prices nor try to imitate the variety of merchandise offered in the retail centres. However, by resolving traffic issues (increased parking, stimulating public transport etc.), investing in a clean environment and streetscape improvements, and adopting a co-ordinated approach to build a broad but complimentary variety of merchandise to those in retail centres, it can deal with the competitive pressures from the city's outskirts.

RECEIVED: JULY 2007

REFERENCES

Ahn, K. H., and Ghosh, A. (1989), "Hierarchical Models of Store Choice", *International Journal of Retailing* 4 (5), 39–52.

Anselmsson, J. (2006), "Sources of Customer Satisfaction with Shopping Malls: A Comparative Study of Different Customer Segments", *International Review of Retail, Distribution and Consumer Research* 16 (1), 115–138

Arnold, S. J., and Luthra, M. N. (2000), "Market Entry Effects of Large Format Retailers: A Stakeholder Analysis", *International Journal of Retail & Distribution Management,* 28 (4/5), 139–154.

Besanko, D., Dranove, D., Shanley, M. T., and Schaefer, S. (2004), *Economics of Strategy, Hoboken*, NJ: Wiley.

Dawson, J. A. (1983), *Shopping Centre Development*, London: Longman.

Dixon, T. J. (2005), "The Role of Retailing in Urban Regeneration", *Local Economy* 20 (2), 168–182.

Eppli M. J., and Shilling, J. D. (1996), "How Critical is a Good Location to a Regional Shopping Center", *Journal of Real Estate Research* 12 (3), 459–469.

Frasquet, M., Gil, I., and Molla, A. (2001), "Shopping-Centre Selection Modelling: A Segmentation Approach", *International Review of Retail, Distribution and Consumer Research* 11 (1), 23–38.

Gautschi, D. A. (1981), "Specification of Patronage Models for Retail Choice Center Choice", *Journal of Marketing Research* 18 (2), 162–174.

Guy, C., and Bennison, D. (2002), "Retail Planning Policy, Superstore Development and Retailer Competition", *International Journal of Retail & Distribution Management* 30 (9), 431–434.

Huff, D. L. (1962), *Determination of Intra-Urban Retail Trade Areas*, Los Angeles: University of California, Real Estate Research Programme.

Koren, M., Dedek, F., Hočevar, M., Stare, J., and Uhan, S. (2003), *Trgovina na drobno v mestni občini Ljubljana v letu 2002*, Ljubljana: Inštitut za Ekonomska raziskovanja.

Lee, M., and Pace, R. K. (2005), "Spatial Distribution of Retail Sales", *The Journal of Real Estate Finance and Economics* 31 (1), 53–69.

Leo, P. Y., and Phillipe, J. (2002), "Retail Centres: Location and Consumer Satisfaction", *The Service Industries Journal 22* (1), 122–146.

Nevin, J. R., and Houston, M. J. (1980), "Image as a Component of Attraction to Intraurban Shopping Areas", *Journal of Retailing* 56 (1), 77–93.

Okoruwa, A. A., Terza, J. V., and Nourse, H. O. (1988), "Estimating Patronization Shares for Urban Retail Centers: An Extension of the Poisson Gravity Model", *Journal of Urban Economics* 24 (3), 241–259.

Parkinson, M., and Harding, A. (1996), "European Cities towards 2000: Entrepreneurialism, Competition and Social Exclusion", In Rhodes, M. (ed.), *The Regions and the New Europe: Patterns in Core and Periphery Development*, Manchester: Manchester University Press, 52–77.

Severin, V., Luoviere, J. J., and Finn, A. (2001), "The Stability of Retail Shopping Choices over Time and across Countries", *Journal of Retailing* 77, 185–202.

Schiller, R. (1987), "Out-of-Town Exodus", In McFayden, E. (ed.), *The Changing Face of British Retailing*, London: Newman Books, 64–73.

Sit, J., Merrilees, B., and Birch, D. (2003), " Entertainment-Seeking Shopping Centre Patrons: The Missing Segments", *International Journal of Retail & Distribution Management* 31 (2), 80–94.

Spiggle, S., and Sewall, M. A. (1987), "A Choice Sets Model of Retail Selection", *Journal of Marketing* 51, 97–111.

Stanovnik, P., Dedek, F., Koren, M., Potočnik, V., Koman, K., Manoilov, M., Novak, J., Stare, J., and Videčnik, M. (2001), *Usmerjanje razvoja trgovine na drobno v prostoru Mestne občine Ljubljana*, Ljubljana: Inštitut za Ekonomska raziskovanja.

Statistical Yearbook 2006. (2007), Ljubljana: Statistical Office of the Republic of Slovenia. Available at: http://www.stat.si/letopis/index_vsebina.asp?leto=2006&jezik=en

Taylor, N, McClintock, W., and Buckenham, B. (2003), "Social Impacts of Out-of-Centre Shopping Centres on Town Centres: A New Zealand Case Study", *Impact Assessment and Project Appraisal* 21 (2), 147–153.

Thomas, C. J., and Bromely, R. D. F. (2002), "The Changing Competitive Relationship between Small Town Centres and Out of Town Revival in South Wales", *Urban Studies* 39 (4), 791–817.

Thomas, C. J., Bromley, D. F., and Tallon A. R. (2004), 2Retail Parks Revisited: A Growing Competitive Threat to Traditional Shopping Centres?", *Environment&Planning* 36 (4), 647–667.

Tomalin C., and Pal, J. (1994), "Local Authority Responses to Retail Change", *International Journal of Retail & Distribution Management* 22 (6), 51–57.

Warnaby, G., and Davies, B. J. (1997), "Commentary: Cities as Service Factories? Using the Servuction System for Marketing Cities as Shopping Destinations", *International Journal of Retail & Distribution Management* 25 (6), 204–210.

Warnaby, G., and Bennison, D. (2006), "Reciprocal Urban Place Marketing and Co-Branding? Retail Applications", *Place Branding* 2 (4), 297–310.

Warnaby, G., and Bennison, D., Davies, B. J., and Hughes, H. (2002), "Marketing UK Towns and Cities as Shopping Destinations", *Journal of Marketing Management* 18 (9–10), 877–907.

Welteverden, J., Atzema, O., and Frenken, K. (2005), "Evolution in City Centre Retailing: The Case of Utrecht (1974–2003)", *International Journal of Retail & Distribution Management* 33 (11), 824–841.

Westbrook, R. A., and Reilly, M. D. (1983), "Value-Percept Disparity: An Alternative to the Disconfirmation of Expectations Theory of Consumer Satisfaction", In Bagozzi, R. P., and Tybout, A. M. (eds.), *Advances in Consumer Research* 10, Ann Arbor, MI: Association for Consumer Research, 256–261.

Wong, G. K. M., Lu, Y., and Yuan, L. L. (2001), "SCATTR: An Instrument for Measuring Shopping Centre Attractiveness", *International Journal of Retail & Distribution Management* 29 (2), 76–86.

Wu, C. (2008). "Can We Weight Satisfaction Score with Importance Ranks Across Life Domains?", *Social Indicators Research* 86 (3), 469–480.

Yavas, U. (2003), "A Multi-Attribute Approach to Understanding Shopper Segments", *International Journal of Retail & Distribution Management* 31 (11), 541–548.