

Abstracts

R. GOMEZ-INSAUSTI: "Canada's Leading Retailers: Latest Trends and Strategies for their Major Chains". Leading retailers in Canada have developed strategies of integration, acquisition and market penetration that have resulted in a higher level of capital concentration within the retail sector. Over recent years, large retailers have increased their competitive advantage and, consequently, their market dominance through the development of new retail formats across the country. The investment strategies of the largest retail players affect the spatial organization of many businesses. Their locational preferences towards specific retail environments have an impact on the locational strategies of the smaller players. Some powerful retailers focus chain development on major markets where they establish their new formats while other players are moving away from the largest urban agglomerations to concentrate their investments in smaller markets. The paper assesses market concentration and locational preferences among leading retailers by retail sub-sector and market size.

B. J. LORCH: "The Evolution of a Big-Box Landscape: A Case Study of the Winnipeg Market". Towards the end of the 1990s, Winnipeg experienced a dramatic expansion of its inventory of retail space, much of it in the form of big box store and power centre development. The paper begins by exploring a variety of market factors seen as contributing to this expansion. This includes a discussion of the effects of historically low interest rates and a devalued Canadian dollar on Winnipeg consumers. The paper then examines the locational imprint made by the new format retail investment wave. While some greenfield development has occurred, a sizeable majority of the retail space added in the past ten years has served to reinforce the traditional spatial hierarchy of planned shopping centres that emerged during the 1970s and early 1980s. Patterns of population growth and concomitant shifts in the spatial distribution of market income are also considered as explanatory factors for locational choices. The paper concludes with some analysis of how the major components of the traditional hierarchy, namely the regional and super-regional enclosed shopping centres which appear to have acted as magnets for big box store locational choices, have adapted or responded to the arrival of big box shopping.

K. JONES and R. GOMEZ-INSAUSTI: "Banks in Small Communities in Canada: 1998-2004". This paper examines changes in the provision of fundamental services to smaller communities in Canada. The research analyzes changes in the network of Canadian banks over the period 1998 to 2004 for the 874 places in Canada that reported populations of less than 50,000 inhabitants in 2001. It is well known that the Canadian banking sector has undergone major changes in its delivery system since the early 1990s. The research examines the relationship between bank services and other services, specifically by assessing if a decrease or increase in the number of bank branches in these smaller centres follows the same patterns and locational tendencies as other major service and retail providers (i.e., physicians, dentists, pharmacies, grocery stores, and car dealerships). The paper examines two fundamental issues: (i) the level of banking service in these communities; and (ii) whether banks typically are the first services to leave these centres. The empirical evidence indicates that changes in the banking system in small Canadian communities are associated directly with the overall economic performance of these places. The paper provides models of the lag-effects associated with service change in small town communities, identifying the services that either lead or follow change.

S. FARBER and M. YEATES: "A Comparison of Localized Regression Models in a Hedonic House Price Context". This paper compares the use of several local regression models using residential property valuation as a case study. The dataset consists of 19,007 housing sales observations occurring between July 2000 and June 2001 within the City of Toronto. Presently, assessment offices rely on a vast number of structural variables in order to sufficiently model market values. Building on the earlier findings of the authors, namely that local models using a small set of variables have a similar performance to the models used in industry, the aim of this paper is to compare the results of several localised regression models. Global OLS models are compared to a variety of local models including spatially autoregressive techniques (SAR), geographically weighted regression (GWR), moving window regression (MWR), and a spatial model of error heterogeneity. The models are all calibrated using a small set of parsimonious and defendable variables. Spatial autocorrelation amongst the residuals, as measured with Moran's Index, is used as an indicator of spatial bias in the estimates. The results show that GWR produces the most accurate and least spatially biased estimates. MWR, the simpler alternative, produced results that rivaled those of GWR without incorporating the unknown effects of distance-decaying weights. This indicates that the conceptual cost of abstraction associated with the use of a distance weighting scheme of GWR may not be worth the additional estimation accuracy.

B. MOULIN and A. WALID: "Perception-Based Multi-Agent Geo-Simulation in the Service of Retail Location Decision-Making in a Shopping Mall". In the very competitive retail world, mall managers develop various strategies to differentiate their malls from their competitors in order to enhance customer loyalty. One possible strategy consists in changing the mall configuration and more specifically the

stores' locations. Deciding on stores' locations is a very important decision which can be expensive in terms of money and time. In order to guarantee the success of such decisions, mall managers should be able to better understand customers' behaviours and the way they may react to changes in the mall's configuration. Traditional techniques such as surveys and the use of Geographic Information Systems may help to understand customers' behaviours in an existing mall, but they are not adequate for anticipating customers' reactions to a future layout of the mall. Thanks to recent progress in the areas of geo-simulation and multi-agent systems, simulating the behaviours of a large number of virtual agents in a geo-referenced virtual world is now possible. We propose to apply these techniques in the shopping mall domain. In this paper, we present a multi-agent geo-simulation approach and a software, MallMAGS, which are used to model and simulate customers' shopping behaviours in virtual malls. Using such a geo-simulation, a manager can reproduce his or her mall layout, create a population of virtual shopper agents which mimic the behaviours of mall customers, observe how virtual shopper agents interact with the virtual mall and how they react to changes in the mall configuration. We suggest that SOLAP techniques (Spatial On Line Analytical Processing) be used to systematically analyse the results of these multi-agent geo-simulations.

T. HERNANDEZ: "Geovisualization of Retail Structural Change in Canada". Geovisualization refers to the *visual* exploration, analysis, synthesis and presentation of geospatial data. This paper presents findings from research that has focused on developing and applying geovisualization techniques and technologies for use within retail location decision support. Retailers represent a major user group of Geographic Information System-based (GIS) decision support technologies, with applications ranging from trade area mapping to store portfolio planning. However, the ability to handle spatial-temporal data, visualize change, and explore the temporal dimension of spatial data is limited within conventional GIS. The paper details the development of a prototype geovisualization system that has been designed to enable visualization of spatial-temporal change of retail-related data. From this explicitly visual paradigm, a number of examples of potential analysis are examined at four different scales of analysis: national, regional, market and micro-level. The paper highlights both the challenges and potential to enhance retail decision support by integrating geovisualization techniques and technology within decision support activities.

F. BERGERON, L. GINGRAS, P. HADAYA, and C. CARON: "A Framework for Evaluating Strategic Location-Based Applications in Businesses". Location-based and location-oriented applications will be amongst the most powerful drivers of organizational change in the coming years. However, the strategic use of these technologies and their benefits will vary from one organization to another based on the business' needs. The alignment between the use of location-based technologies and the firms' business strategic orientation is thus of primary importance. In an attempt to support firms in this alignment process, this paper presents

the GEOGRID framework for identifying and analyzing the strategic opportunities offered to firms by the use of leading edge location technologies. This framework groups the main variables that need to be considered in order to analyze the competitive positioning of the business, to reveal assumptions, to ascertain benefits, and to control costs tied to the strategic applications of location technologies in organizations.