1 Introduction

Retail managers are often faced with the di¢ cult decision of where to place their stores.[1] Such decisions are challenging because of the uncertainty retailers face; especially so if this uncertainty cannot be fully resolved via market research. For instance, American retailers may be uncertain about a market's tastes (Bell and Shelman, 2011), anti-American sentiment (Beamish, Jung, and Kim, 2011), and health consciousness (Lawrence, Requejo, and Graham, 2011). In some cases, it is only by diving into a market that such uncertainty would be resolved (i.e., learning through entry). But upon entering a market, subsequent stay/exit decisions are publicly seen, and thus, prospective entrants can infer market pro…tability based on such observations (71(i(E1-370(mar80.909Tf390.277(

information that can possibly be revealed when an existing and informed chain decides to stay or exit a market. My objective is to understand how these externalities will a¤ect an industry, and whether they contribute to behavior consistent with clustering. The setting for my analysis

allowing the retailers in my model to be forward looking, they can react appropriately to information

McDonald's and Wendy's. In Canada, no other chains with national presence entered the industry

Table 1: Coverage of CMAs in sample.

Province	Cities
Alberta	Calgary, Edmonton
British Columbia	Vancouver, Victoria, Kelowna, Abbotsford
Manitoba	Winnipeg
New Brunswick	Moncton, Saint John
Newfoundland	St. John's
Nova Scotia	Halifax
Ontario	Toronto, Ottawa, Hamilton, London, Windsor, Niagra Falls, Peterborough, Guelph, Kitchener, Kingston, Oshawa, Barrie, Brantford, Sudbury, Thunder Bay
Saskatchewan	Saskatoon, Regina

Table 2: Summary statistics

Figure 2: Histogram of entry years.

1970, I calculate the mean and variance for the main variables for two sub-samples. The …rst sub-sample is for markets that were occupied in 1970, and the second sub-sample is for markets that were occupied after 1970. Table 6 presents the summary statistics, and in general, there are no obvious di¤erences between these two sub-samples. It is worth noting that the markets that were …rst occupied in 1970 do not appear to be systematically better than markets that were explored later on.

Table 6: Summary statistics for markets that were occupied in 1970, and for markets that were occupied after 1970.

I estimate the market …xed e¤ect by including 608 market dummies into the speci…cation. The interaction between time and the market …xed e¤ect, t_m, captures a restrictive form of time-

Table 7: Evidence of clustering based on the chains' decision to be active in market.

	(1) A & W	(2) Burger King	(3) Harvey's	(4) McDonald's	(5) Wendy's
A & W incumbent	3.952	0.0712	0.0946	0.0541	0.305
	(0.0709)	(0.0897)	(0.0894)	(0.0875)	(0.0910)
Burger King incumbent	0.363				

I do allow for unobserved heterogeneity by introducing a market …xed e¤ect, $_m$. Most importantly, the introduction of dynamics aides in identi…cation, as it provides an important exclusion restriction.

Therefore, the inclusion of $_{imt\ 1}$ as a state variable is a compact way of representing knowledge inferred from past decisions $fa_{mt\ s}g_{s>0}$. In other words, $_{imt\ 1}$ is a su¢cient statistic for $fa_{mt\ s}g_{s>0}$.

5.2 A simple DID speci…cation test for learning

for the initial CCPs P_0

Table 10: Structural estimation of dynamic entry/exay34(eh93en)33(d)el.

Figure 4: The number of instances in which a retailer follows a rival incumbent into a market.

Table 11: Average number of years before …rst entering a market.

[43] Rob, R. (1991). Learning and Capacity Expansion under Demand Uncertainty. The Review of

[58] Varela, M. (2010). The Costs of Growth: Estimating Entry Costs with Endogenous Growth Rates. Working paper.

8.2 Applying Aguirregabiria and Mira's (2007) representation lemma

I will now demonstrate how the MPE can be expressed using only the conditional choice probabilities, states, and model primitives. As before, X