UNDERSTANDING THE KEY DETERMINANTS OF RETAIL SUCCESS

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A few years ago I was asked to purchase a $200 shoe to fulfill my duty as a bridesmaid. As a doctoral student spending that much money on a shoe was unreasonable, so I was determined to find and purchase this shoe cheaper. I found a boutique that sold the shoe relatively inexpensively, but would not have my size in stock for a few weeks. However, when I returned, the boutique was out of business. I continued my search by calling two national retailers but here again faced obstacles; in both cases I was told that the shoe could only be purchased online because the retailers were limiting in-store assortments. I was ultimately forced to purchase the shoe for $200.

Although this shopping experience ended sub-optimally (I had to pay $200 for a shoe), it exposed me to some important retail trends which had previously eluded me. I saw a local retailer go out of business in a matter of weeks and also witnessed two seemingly dominant national retailers communicate that they were in fact struggling to remain competitive. But more than anything, this experience sparked my interest in retail competition. I wanted to know if the retail cues I observed were a result of poor macroeconomic conditions, idiosyncratic to the Pittsburgh market, or reflective of the industry as an aggregate.

From preliminary research I learned that retailers have found it increasingly difficult to survive, let alone thrive since the 1970s (e.g. Basker 2007, Jia 2006, Neumann 2005, and Neumann 2008). Not only are retailers facing increased pressures from manufacturers in the form of disintermediation, but there are pressures from the internet in the form of lowered search

costs, from new entrants like box stores and retail chains, and from consumers to provide more value at lower price points (e.g. (Jia 2006; Neumann 2005; Basker 2007). Despite this mounting competitive intensity, retailers continue to face pressures from shareholders to increase their market exposure and revenue earning potential (e.g. Barney 1991, Capron and Hulland 1999, Dutta et al. 1999, Moorman and Slotegraaf 1999, and Makadok 2001).

My dissertation studies the inconsistency between shareholders' expectations and retailers' experiences in two essays. By identifying the key drivers of retail success and explaining how competitive overlap impacts retail incumbents' ability to compete against new entrants, my dissertation not only provides managers with actionable insights but advances the marketing field's theoretical understandings of retail competition.

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1.0 INTRODUCTION

Retailers are finding it increasingly difficult to survive and thrive in today's cut-throat competitive environment. Singh et al. (2006, p. 457) summarize this phenomenon by stating the following: "Rapid growth of alternative retail formats, in the form of mass discounters, wholesale clubs, and supercenters, has transformed not only the competitive structure of the industry, but also the way in which consumers shop." Despite this increased competitive intensity, few studies have identified the keys to retail success. My dissertation fills this gap by (1) explaining how retail advantage is built and (2) documenting the effects of competitive overlap between retail players.

My first essay uses an induction-based approach to identify the sources of retail advantage. I review pertinent literature, interview qualified retail managers, and use archival records to identify twelve capabilities vital to retail success. I find that durable retail advantage is driven by deploying systems of interdependent capabilities and appreciating capabilities' differential importance. I synthesize this research into a framework to provide managers with additional insights as they develop company resources.

My second essay is an empirical piece which studies the differential effectiveness of emulation and differentiation as competitive strategies. Strategic direction is seen as a continuum, a relationship I capture by introducing the notion of "strategic service orientation (SSO)." I examine how a firm's SSO impacts its sales after new competitors arrive and the effects of pertinent SSO moderators. Results show that emulation-based services best protect incumbents from both new Wal-Marts and new upscale stores. However, as the number of competitors near the new entrant increases, differentiation-based services become more relevant. Importantly, the incumbent's format impacts its ability to compete and how it should compete.

Taken together, my dissertation provides unique and valuable insights into retail competition. It is hoped that my research not only has unparalleled pragmatic implications, but theoretical ones as well. These implications will come clearer in the following sections.

1.1 SYNOPSIS OF ESSAY I

The first paper in my dissertation is a conceptual piece modeled after Kohli and Jaworski's (1990) seminal work on market orientation. I follow this model because like these authors I inductively derive insights from qualitative sources. I specifically interviewed qualified retail managers, reviewed retail leaders' archival records, and reviewed the capabilities and retail literatures to identify twelve capabilities vital to retail success.

I also find that that these capabilities are differentially important and their value creation paths vary. For example, primary capabilities are vital to retail success and the foundation on which retail advantages are built; primary capabilities are sufficient in themselves to produce competitive advantage. These capabilities are unique in that they are very knowledge-intensive, so that successfully leveraging them depends on firm-specific demands and skills (Barney 1989 and Capron and Hulland 1998). For retailers these primary competitive drivers are market sensing, customer service, buying ability, and brand management. Comparatively, secondary capabilities play supportive and facilitative roles, and build upon primary capabilities to create value. Thus, they have an indirect impact (working through primary capabilities) on retail performance. The four secondary retail capabilities are divestment management, risk management, inter-functional partnerships, and novel shopping experience.

The third group—fluid capabilities--shares properties with primary and secondary capabilities. A fluid capability's value-creation path depends on external market factors like stability in the external market environment, as well as changes in price structures, production

methods, and competitive structures (Lucas, Jr. and Gresham 1985 and Jaworski 1988). Effectively managing fluid capabilities requires that retailers understand when and how their value-creation paths change, and adjust their emphasis accordingly. Four such capabilities exist in the retail context: supply chain operations, price-value relationship, property management, and IT skills.

Notably, retailers must consider the degree of complementarity when investing across primary and supportive capabilities. Although emphasizing primary capabilities leads to superior retail performance, investing in secondary and contingency capabilities that are interrelated with primary ones yields greater (and more sustainable) advantages. For example, supply chain operations enable retailers' buying programs but have no effective impact on their brand management. So if the retailer's goal is to improve its buying programs, then emphasizing supply chain is justified but if the goal is to improve its brand management system then emphasizing supply chain is unwarranted.

To advance this argument I identify groups or systems of complementary retail capabilities organized around the four primary capabilities. The secondary and fluid resources included in systems "enable" their associated primary capabilities.

1.2 SYNOPSIS OF ESSAY II

Porter (1980, 1998) identifies differentiation and emulation as generic strategies firms can use to achieve competitive advantage. Differentiation allows firms to create a perception of exclusivity, charge premium prices, and ultimately create a highly defensible competitive position. In contrast, emulation allows firms to piggy-back on competitors' investments, learn from their mistakes, and identify competitive deficiencies that can be exploited (Lieberman and Montgomery 1998).

The second essay in my dissertation tests the differential effectiveness of these competitive positions to understand which minimizes incumbents' sales losses from new entrants. Although the terms "emulation" and "differentiation" imply strategic reaction, I use them to capture the degree of similarity and dissimilarity between competitor's service offerings respectively.

I introduce the idea of *strategic service orientation* (SSO) to capture the relative emphasis firms place on services aimed at emulation versus those aimed at differentiation. Thus, firms' service offerings lie along a continuum -- they can exclusively offer services that emulate or exclusively offer services that differentiate, or some combination of both. I determine a retailer's SSO by subtracting the number of services aimed at differentiation from the number of services it offers aimed at emulation, and then divide this value by the total number of services offered by incumbent *i* relative to new entrant *j* at time *t*.

Through my analysis I show that emulation is superior to differentiation for incumbents competing against new entrants and is particularly effective when the new entrant is an upscale store. However, the importance of differentiation increases with competitive intensity. I find that the need to stand out overtakes the power of being a first-mover when there are at least twenty-one retailers in an area. In the same sense, competitors within twelve miles of the new entrant should emphasize emulation but those outside of this radius are best served by operating unique competitive positions. Together these results suggest that retailers should assess the competitive nature of trading areas before deciding how to approach a new competitive threat.

I also estimate models to understand how the competitive positions work across different retail formats. These analyses make clear that vulnerability to new entrants is not uniform but instead depends on characteristics of the incumbent and characteristics of the new entrant.

Emulating is optimal for drug incumbents, and though emulation minimizes grocers' sales losses from new Wal-Marts, differentiation is key when the new entrant is an upscale store. Finally, differentiation and emulation are equally ineffective at insulating discounters from new Wal-Marts, but discounters should emphasize differentiation in the face of new upscale stores.

1.3 CONTRIBUTION

Together, the essays in my dissertation provide a fuller perspective of retail competition. From a theoretical perspective I identify twelve capabilities that foster retail advantage, explicate each capability's value-creation path, identify the systems of capabilities underlying sustained retail advantage, and explain how each of these systems works. My research also shows that retail advantage is driven by an understanding of how an incumbent's competitive position vis-à-vis a new entrant's impacts their ability to compete. This key result extends Gielens et al. (2008), Ailawadi et al. (2010), and comparable authors by identifying conditions where a high degree of competitive similarity is valuable.

Second, my dissertation provides retail managers with important, actionable insights. For example, I find that retailers rarely sustain advantages because managers attempt to develop multiple primary capabilities at once, treat capabilities as equally important, and/or emphasize individual resources instead of systems. Additionally, I show that failure to match a new entrant's offering in the form of emulation highlights deficiencies in the incumbent's strategy and ultimately encourages consumer switching at a high rate. And although emulation is superior to differentiation in an absolute sense, the importance of differentiation increases with competitive intensity and as proximity between competitors increases. Thus, retailers should assess the competitive nature of trading areas before deciding how to approach a new

competitive threat. Importantly, the effectiveness of the competitive positions differs across incumbent format.

2.0 Essay I: Capability Systems and Retail Success

"The retail store is a ubiquitous feature of the modern American economy. Over 15 million Americans, 11.3 percent of the work force, work in retail trade…While these figures provide an indication of the size of the industry, they do not capture the full impact of retailing on the American economy....This wide scope means changes in the sector have profound and immediate impacts on the entire American economy and populace."
~Neumann (2008)

Although retailing is an integral component of the American economy, retailers are finding it increasingly difficult to survive – much less thrive (Basker 2007, Jia 2006, Neumann 2005, and Neumann 2008). This difficulty can be attributed to growth in the number of discount stores and retail chains, increased emphasis on low price models, and increased pressures to invest in costly technologies (Jia 2006; Neumann 2005; Basker 2007). As a result of these changes, retail sales and gross margins have consistently fallen since 2007, with gross margins dropping more than ten percent between 2000 and 2010 (The 2009 Annual Retail Trade Report).

In an environment of mounting competitive intensity, retailers face pressures from shareholders to increase market exposure and improve revenue earning potential. To address these pressures, retailers seek resources that can be leveraged to achieve competitive advantage by creating more value than competitors (i.e., Barney 1991, Capron and Hulland 1999, Dutta et al. 1999, Moorman and Slotegraaf 1999, and Makadok 2001). As Hulland et al. (2007, p.4) note: "The retailing industry can be characterized as brutally competitive and fast moving. In such a daunting operating environment, the search for a new source of competitive advantage is an ongoing quest."

Though researchers have attempted to provide retailers with actionable and usable insights, many still struggle to achieve competitive advantage. We argue that this disconnect exists because while some research asserts that industry-level characteristics make some

resources important and others less so (e.g., Capron and Hulland 1999; Day 1994; Teece et al. 1997; Srivastava et al. 1998), little research has explored the sources of competitive advantage in the retail industry. For example, it is unclear if property management is a primary performance driver in the retail industry in the same way that it is the diamond industry. Similarly, although personal selling is important in the business-to-business context, it is unclear if and how this resource works in the retail context. This gap in literature is puzzling, because the retail industry is so paramount in terms of size (employment and number of outlets) and because it performs a critical function linking consumers and manufacturers.

To address this gap, we draw on archival records, conduct interviews with qualified retail managers, and review past work to identify important retailing capabilities and to explain each capability's value-creation path. This approach allows us to resolve discrepancies between retail researchers and practitioners, and ultimately develop a framework to help guide retail managers' decisions. As such, our research not only advances theoretical understanding of retail competition but also provides retail managers with actionable advice. It is important to note that the resources we identify may be valuable in other industries, but their effective combination into systems of capabilities is unique to retailers.

We organize the remainder of this paper into five sections. We begin by describing our methodological approach, after which we summarize the traditional view of capabilities. The third section introduces a new typology of capabilities that details their value-creation paths and the fourth discusses complementarity between capabilities. We conclude by highlighting our main contributions and discussing the implications of our work.

2.1 INFORMATION SOURCES AND METHODOLOGY

Though we study a very different issue than Kohli and Jaworski (1990), our study follows a similar methodological approach because, like them, we seek to build theory from diverse, qualitative data sources. We draw on managerial interviews and published literature, but also gain insights from archival data (e.g., company annual reports, quarterly earnings reports). These three data sources allow us to triangulate our findings and thereby draw robust insights.

2.1.1 Literature Review

Much research has explored the importance of capabilities and firm performance. For example, one stream of research explains how capabilities produce competitive advantage (e.g. Barney 1991, Teece et al. 1997, Capron and Hulland 1999, Moorman and Slotegraaf 1999, and Makadok 2001). Researchers in this area have also identified contingencies that impact a resource's value and its ability to increase firm performance. For example, Moorman and Slotegraaf (1999) argue that "…the value of capabilities is contingent on their effective deployment or use (p. 252)." A second set of research in this subject area identifies the capabilities driving different types of organizations. For example, consider Day (1994) and Dutta et al. (1999), who identify the capabilities unique to market oriented firms and those particularly important in high technology industries, respectively.

Our paper is within the tradition established by this last group of works as we seek to identify the capabilities underlying retail advantages. Based on the literature we initially identified and defined ten capabilities vital to retail success. But because this literature is primarily descriptive and fails to explicate how capabilities produce competitive advantage, it serves as the foundation for the rest of our paper and identifies gaps requiring further clarification.

2.1.2 Field Interviews

We interviewed fourteen senior retail managers to augment the information collected through our literature review. Specifically, we were looking for confirmation of some aspects of the existing perspective (e.g. Porter 1980) as well as an expansion of this view to reflect the peculiarities of the retailing context. The interviewees were held with retail managers and executives with at least regional-level managerial experience, including: Executive Vice Presidents, Chief Executive Officers (CEOs), and regional managers. Four of the interviewees currently serve or served in the past on top retail management teams. The interviewees worked in seven companies across four American cities, in various functions. Four of those interviewed held marketing positions, while the remaining ten had expertise in strategic management, financial planning, and new product development. Care was taken to include personnel who worked at organizations of various sizes. Our sample specifically included sole proprietors, and managers from both multinational and regional chains. In two cases, interviews were cross-functional within the same company. The interviews lasted about an hour. Follow up emails were sent to interviewees when clarification was needed. Because our sample "…reflects a diverse set of organizations, departments, and positions… [it] is well suited for obtaining a rich set of ideas and insights (Kohli and Jaworksi 1990, p. 2)."

We began the interviews by introducing our research project and then administered research protocols based on the interviewee's sector of expertise. The protocols provided guidelines for interviews, but permitted deviations when clarification was necessary. For example, deviations were needed to explain questions, expound on concepts, provide examples, and generally provide more insight than otherwise.

Questions in the protocol were broken into three groups. The first set of questions sought to develop more comprehensive definitions of capabilities and identify key retailing capabilities not already studied in the literature. The second set of questions was designed to understand the relative emphasis retailers place on different capabilities and how capabilities work together. For example, interviewees were asked to identify the primary, secondary, and fluid capabilities and explain their reasoning. These questions allow us to determine the differential importance of the retail capabilities for each firm. From these questions we also gained a better understanding of how the capabilities identified in the literature impact retail value, and how each can be leveraged to create competitive advantage. The last set of questions was more process-focused than the others. Here, the goal was to identify the processes need to convert capabilities into sources of sustained advantage. Refer to Appendix A for a copy of the protocols.

2.1.3 Archival Records

Finally, we used archival records — annual reports and quarterly earnings conference calls, *MSN Money*, and published articles — to confirm, and augment the findings from the interviews. We analyzed archival records for the home improvement and apparel sectors, sectors that seemingly have little in common because they are at opposite ends of the retail spectrum, because commonalities between them should reflect industry-wide trends. Within these sectors, we focused on the decisions of the firms with the highest sales as identified by The National Retail Federation's *2011 Top 100 Retailers*, leaving us with two home improvement firms—Home Depot and Lowe's--and four apparel firms—Macy's, JCPenney, Nordstrom, and Sears. We focused on firms' decisions between 2000 and 2011 because this period was marked by a variety of macroeconomic conditions (i.e. periods of growth and downturn) and extensive technological growth. Importantly, although Wal-Mart is the world's most dominant retailer we

believe its size, supply chain strength, assortment, and resources are atypical, rendering it an outlier (though in a positive way) in the retail industry (Ailawadi et al. 2010). Specifically, though competitors may attempt to copy Wal-Mart's strategy most lack the resources needed to successfully do so.

2.2 RETAILING CAPABILITIES: A TRADITIONAL VIEW

We define resources as "assets and capabilities that are available and useful in detecting and responding to market opportunities or threats" (Sanchez *et al.* 1996). Together, assets and capabilities describe the set of resources available to the firm. Assets represent anything tangible or intangible the firm can use to create, produce, and/or offer its products (goods or services) to a market. As such, assets can serve as inputs to a process, or as the outputs of a process (Srivastava *et al*. 1998; Teece *et al*. 1997). In contrast, capabilities transform inputs into outputs of greater worth (Amit and Schoemaker 1993; Capron and Hulland 1999; Sanchez *et al*. 1996) and have been found to be particularly important drivers of success (e.g. Teece et al. 1997, Vorhies et al. 1999, Rosenzweig et al. 2003, and Tsai and Shih 2004). Capabilities can include skills, such as technical or managerial ability, or processes, like systems development or integration.

Through the literature review we pinpointed ten capabilities that are important to retailers. The interviewees and archival records provide further evidence of their importance to retail success. These capabilities are identified and defined in Table 1. Information for this table primarily comes from previous academic research, but is supplemented with insights from our managerial interviews. Importantly, the interviewees identify and define two additional capabilities (not shown in Table 1) — risk and divestment management –as being critical to

retail success. Thus, we recognize twelve capabilities that are vital to retail advantage. After briefly describing Table 1, we discuss the two newly identified capabilities in more detail.

Table 1. Traditional View of Capabilities

Source of competitive advantage	Capability	Traditional description	Informants' additions
Differentiation-Based Advantage	Market sensing*	The "processes for gathering, interpreting, and using market information (Day 1994)."	Poorly anticipating market fluctuations forces retailers to play "catch up" and erodes previous competitive advantages.
	Customer service*	The ability to provide superior customer service has been found to have a strong link to increased overall firm performance (e.g., Anderson et al. 1994; Bolton 1998).	Accessibility to customers and a customer-friendly atmosphere are particularly important to retailers.
	Brand management*	Firms must balance competing brands and maximize the profit associated with each (e.g., Capron and Hulland 1999; Srivastava et al. 1998).	Firms must create a unique DNA – a brand filter – for each of its brands in order to minimize brand overlap and successfully target distinct segments.
	Novel shopping experience	It is achieved by combining unique formats and atmospherics with an element of surprise (Pearce 1989).	Retailers must utilize unique elements and delivering surprise must be done in a way that is consistent with the retailer's overall image.
Cost-Based Advantage	Property management	The ability to find high profit retail locations and invest in high-quality real estate while optimizing consumers' convenience.	Property management is supported by anticipating future development trends, co-locating with other firms, and purchasing real estate in close proximity to Big Box stores, and recoup abnormally high profit margins by selling premium properties.
	Supply Chain Operations	Wal-Mart is widely recognized as a leader in this area, having created regional distribution centers to encourage cost efficient logistics and transportation operations.	Online distribution methods allow firms to avoid warehousing costs and automation allows firms to eliminate employee costs, but retailers must keep traditional distribution systems.
	IT skills	Information technology (IT) skills refer to the provision of efficient and cost effective information systems (IS).	As retail sales migrate to the online world, IT skills are likely to play an increasingly important role in driving sales and ensuring firm profitability.
Balance-Based Advantage	Price-value relationship	Firms must maximize the value provided to their consumers and charge the fairest prices, while remaining profitable.	Retailers must charge the fairest though not necessarily the lowest prices. Retailers must manipulate consumers' quality perceptions.
	Inter-functional partnerships	These partnerships span gaps between functions, reduce "tunnel vision," and encourage collaboration.	Inter-functional partnerships promote efficiencies of scale, allow retailers to assess strategic shifts, and encourage creativity.
	Buying ability*	Buying ability allows retailers to compete by offering shoppers unique, dominant, and consistent assortments of goods (Frigo 2002).	This hinges on the ability to gain control and efficiencies, negotiate for advertising money, and partner with vendors to share in markdowns.

*Indicates potentially strong sources of advantage that rarely achieve this level because they are not well understood by managers.

2.2.1 The Traditional View

Building from Porter (1980), Table 1 identifies three mutually exclusive approaches to achieving retail advantage. The first of these approaches, differentiation, is aimed at "...creating something that is perceived industry-wide as being unique (Porter 1980; p. 37)." The literature identifies market sensing, customer service, brand management, and novel shopping experience as sources of differentiation-based advantage (e.g. Pearce 1989, Day 1994, Frigo 2002, Hulland et al. 2007). For example, a novel shopping experience creates a perception of exclusivity and encourages abnormally high profit margins (Pearce 1989), and market sensing allows firms to build unique knowledge stores and develop more sustainable programs than otherwise (Day 1994).

Comparatively, cost leadership requires that firms emphasize low costs and maintain "…quality, service, and other [pertinent] areas (Dess and Davis 1984, p. 469)." Distribution and logistics operations, property management, and information technology (IT) skills are potential sources of cost advantage in the retail sector (e.g. Barney 1991, Bharadwaj 2000, and Wade and Hulland 2004). The ability to streamline the value chain, minimize stock-outs, reduce inventory costs, and avoid persistent costs through IT skills is likely to be an important precursor to superior cost-based performance (Barney 1991). According to the interviewees, retailers with strong supply chain programs are largely able to eliminate costs associated with warehousing, "middle-men," sources of slack, and charge abnormally low prices.

The third set of competitive drivers involves balancing offsetting forces. Balance is marked by the ability to correctly weigh competitive forces, and to respond accordingly by emphasizing the right set of capabilities. The balance-based competitive drivers are price-value relationship, inter-functional partnerships, and buying ability. Retailers that consistently buy

merchandise with consumers' demands in mind and simultaneously maintain the mix of "traditional" products for which they are noted achieve balance-based advantages (Frigo 2002). The managers' experiences suggest that partnerships marked by connectivity, unified and clear strategic positions, and checks and balances promote more efficient operations than otherwise. These partnerships work by promoting efficiencies of scale, allowing retailers to assess strategic shifts, and encouraging more creativity than otherwise.

Importantly, our informants think four of the capabilities—buying ability, customer service, market sensing, and brand management—identified in Table 1 are potentially strong sources of advantage but rarely achieve this level because they are not well understood by managers. For example, they argue that few retailers emphasize supply chain initiatives to promote their buying programs. Strong supply chain relationships allow retailers to increase operational efficiencies, negotiate for advertising money, partner with channel members to share in markdowns, and ultimately enable buying advantages.

Also, consider customer service. The informants agree that retailers often invest in superficial customer service programs and are thus largely unable to achieve service-based advantages. For instance, although JCPenney consistently has the highest customer satisfaction scores among department stores (JCPenney 2009 Annual Report), it does not appear to have a service-based advantage. This disparity exists because JCPenney relies on inventory management, employee training, and comparable programs that are easily observed, imitated, and substituted to advance its service initiatives (JCPenney 2009 Annual Report). And although some retailers view showrooming—visiting brick and mortar stores before purchasing online—as a threat, it appears that firms can embrace this trend to improve their service levels. It specifically appears that showrooming engages consumers across multiple channels to promote

service advantage (Placed 2013). Thus, the difficulty lies in executing unique, complex, and valuable service programs and turning potential threats into sources of advantage.

Market sensing poses a similar challenge. Here again, retailers often invest in research and data collection capabilities, and comparable market sensing activities. While these activities are valuable, it appears that the key to a sensing advantage is correctly anticipating market changes. According to one manager, failure to anticipate market fluctuations forces retailers to play "catch up" and erodes previous competitive advantages. Her firm failed to anticipate the 2009 economic downturn, and was forced to drastically slash prices, reorganize personnel, and reposition its products to obtain marginal profitability. In response to this poor preparation, the firm has subsequently installed new safe-guards to ensure that it better monitors market demand drivers in the future.

The final source of this performance gap is brand management. According to the interviewees, few retailers create unique DNA filters for each of their brands to minimize brand overlap and effectively target different segments. While some degree of overlap is inherent between brands, creating unique DNAs minimizes it. By actively monitoring consumers' preferences and adjusting their brand assortments accordingly, retailers can best maximize the profits associated with each brand.

2.2.2 Additional Capabilities

2.2.2.1 Risk management. Though retailers face various types of risks, those interviewed believe that effectively managing fat-tail risks[1] is especially important. This sentiment is supported by Huisman *et al*. (1998; p.47), who state that the need to manage fat-tail risks "...has

[1] The term "fat-tail risks" refers to a hazard associated with abnormally negative financial dangers (e.g. Huisman et al. 1998).

grown in response to the higher volatility and instability on global financial markets, compounded by the enormous growth in trading activity and international exposure." Examples of such fat-tail events include supply chain disruptions, regulatory changes, natural disasters, and other non-operating risks. What distinguishes these events from others is that they are relatively sporadic, not easily predicted or readily controlled by the firm, and are associated with disproportionately large financial losses.

Additional research indicates that increasing capital costs and discount rates inhibit stable supply chain operations and decrease the net present value of cash flows (Srivstava *et al*. 1998). These factors in turn decrease shareholder value and increase the risks of future cash flows, making it relatively more difficult for firms to secure money for future projects. Although Srivstava *et al*. (1998) solely relate fat-tail risks to supply chain operations, these risks are relevant to all retail resources. Some of the risks associated with fat-tail events were acknowledged by Macy's in its 2010 annual report (p. 7-8):

> "Reduced sales from extreme or prolonged unseasonable weather conditions could adversely affect the Company's business. In addition, natural disasters such as hurricanes, tornadoes and earthquakes, or a combination of these or other factors, could severely damage or destroy one or more of the Company's stores or warehouses located in the affected areas, thereby disrupting the Company's business operations."

Though fat-tail events are unpredictable, firms can leverage marketing resources to minimize their effects. For example, Doyle (2001) and Gruca and Rego (2005) believe that firms can use capabilities to establish strong customer bases that at least partially insulate them from the effects of fat-tail events. Quality risk management facilitates efficient responses to changes in the macro-environment, promotes stability, and subsequently allows firms to achieve competitive advantages through differentiation.

2.2.2.2 Divestment management. A second capability uncovered during our interviews is divestment management -- the ability to get rid of unprofitable ventures. This capability does not apply to marginally unprofitable relationships or relationships that have been unprofitable for a short-time, but to those that have large, persistent, and detrimental performance implications (e.g. Garrett 1987, Wright and Ferris 19976). While acquisitions of regional competitors in the early to mid-2000's increased Macy's visibility, some of these purchases resulted in duplicate locations (i.e. stores within a few miles of one another) and subsequently cannibalized the Macy's brand. To address this problem, the retailer closed eighty duplicate stores in 2005, an additional sixty stores in 2006, and converted the remaining duplicates to Bloomingdale's apparel stores or Macy's furniture galleries. These initiatives resulted in a $445 million gain between 2005 and 2008 (Macy's *2007 Annual Report*).

According to our managers, few retailers use divestments to achieve competitive advantage. This underuse can be attributed to various factors. First, it is relatively difficult to determine the degree of divestment needed to improve performance. Consider Sears, which has largely been unable to divest its unprofitable acquisition of K-Mart (which occurred in 2005). It is unclear whether the corporation should completely close all K-Mart stores, reposition these stores, or maintain stores only in those areas where duplication is minimal. Further, the source of competitive disadvantage is not always clear. Does K-Mart's poor performance stem from its poor supply chain processes, location strategy, low brand equity, or a combination of these and other factors? Retailers are also hesitant because divestitures tend to produce short-term losses (e.g. Montgomery and Thomas 1988, and Wright and Ferris 1997), losses that relatively few firms have the capital to absorb and even fewer managers have incentive to undertake. And finally, divestments have lagged effects that are not easily captured by stocks and other

performance metrics (Montgomery and Thomas 1988). Retailers that divest in key areas can nevertheless increase their efficiency and ultimately achieve sustainable cost advantages.

2.3 A REVISED TYPLOGY OF RETAIL CAPABILITIES

While a classification system can help guide managers' decisions, the interviewees argue that the "traditional view" fails to fully explicate how capabilities produce competitive advantage—achieve more value than rivals. They instead proposed that retail capabilities can be grouped into three categories — primary, secondary, and fluid — each of which is associated with a unique value-creation path. This new typology was clarified, expanded, and refined through iterative discussions with our informants, and is described in more detail below (and summarized in Figure 1).

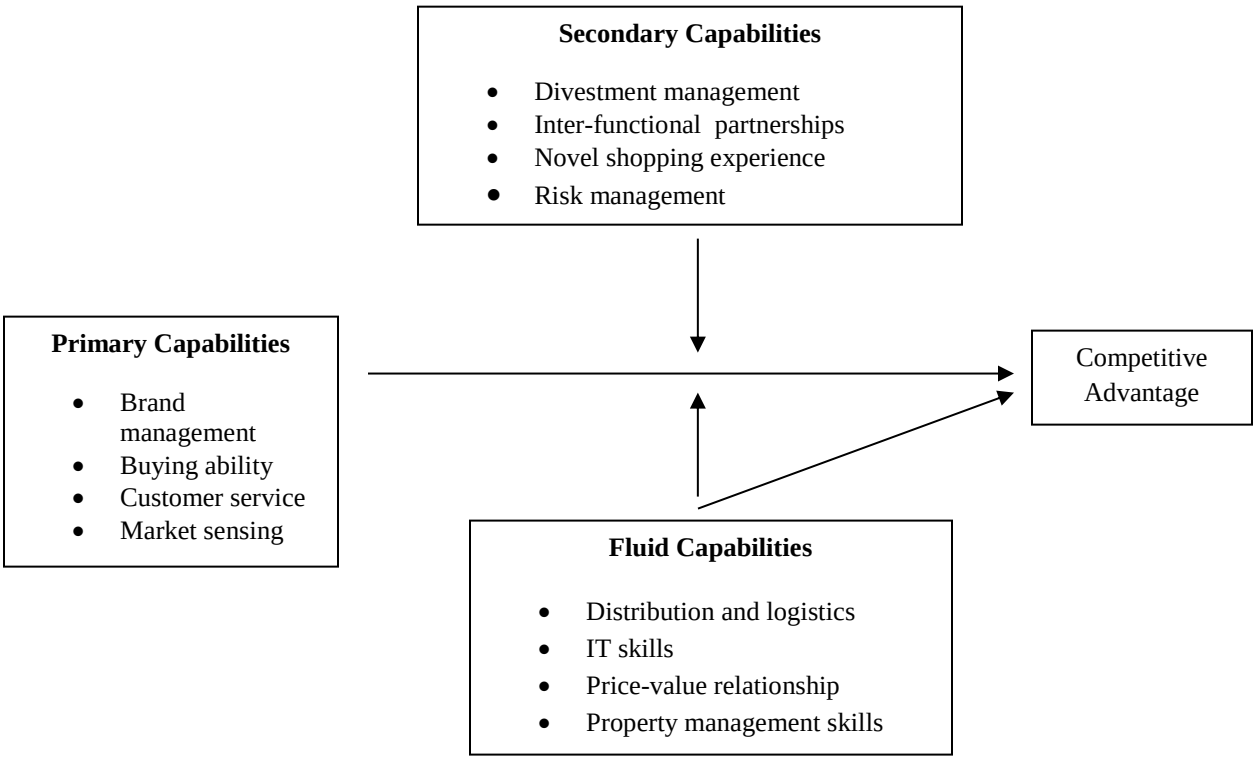

Figure 1. Relating the Differential Impacts of Capabilities to Superior Retail Performance

2.3.1 Primary Capabilities

Primary capabilities are the resources vital to firm success and are the foundation on which competitive advantages are built. These externally oriented capabilities work by anticipating market requirements, creating durable customer relationships, understanding competitors, and exploring new opportunities to achieve competitive differentiation (e.g., Ozsomer and Gencturk 2003; Wade and Hulland 2004).

The informants identify four such capabilities in the retail industry — market sensing, brand management, customer service, and buying ability and their assertions are confirmed through archival records. For example, Macy's 2010 Annual Report cites customer service and buying programs as its primary growth engines. Home Depot's primary goal is to provide innovative products at great value by developing key brand partnerships (Home Depot 2007 Annual Report). And Sears' "…success depends on our [its] ability to differentiate ourselves [themselves] from our [their] competitors with respect to …a quality assortment of available merchandise and superior customer service. We [They] must also successfully respond to our customers' changing tastes (Sears 2011 Annual Report, p.7)."

Primary capabilities are unique in that they are knowledge-intensive, so that successfully leveraging them depends on firm-specific demands and skills (Barney 1989 and Capron and Hulland 1998). Consider market sensing, a capability that describes the acquisition and dissemination of relevant information (Day 1994, Kohli and Jaworski 1990). The information crucial to Bloomingdales success is largely different from that important to JC Penney's since these retailers target distinct segments. Bloomingdales may not be able to capitalize on direct competitors' market sensing activities because they may have different strategic orientations,

organizational cultures, priorities, and information needs. Srivastava *et al*. (1998, p.5) best summarize the knowledge-intensive nature of primary capabilities:

> "Intellectual market-based assets are the types of knowledge a firm possesses…The content or elements of knowledge include facts, perceptions, beliefs, assumptions, and projections. The content of each type and its sources vary greatly from one to another. Thus, a firm may develop projections of the way its industry will evolve so that it knows how it will react ... Or a firm may develop over time unique facts, beliefs, and assumptions about its customers' tastes, manufacturing processes, or proclivities to respond in certain ways to promotion, sales, and pricing moves."

Because primary capabilities are very knowledge-intensive, competitors cannot easily identify the source of competitive advantage, making it difficult to copy and transfer them across firms. A similar argument was presented by Barney (1991), who argues that when causal ambiguity exists "…it is not clear that the resources that can be described are the same resources that generate a sustained competitive advantage, or whether that advantage reflects some other non-described resource (Barney 1991, p. 109)." Based on this discussion we argue that primary capabilities are necessary and sufficient to achieve superior retail performance. Formally:

> *Proposition 1: Four primary capabilities-market sensing, brand management, customer service, and buying ability- are vital to retail success and can be leveraged to achieve superior competitive position.*

Paradoxically, the archival records indicate that advantages from primary capabilities are rarely sustainable. Our review of archival records specifically indicates that emphasizing primary capabilities often leads to superior short-run performance, but this advantage rarely if ever persists over the long-run. This gap exists because retailers often spread investments across multiple primary capabilities, rather than concentrating investments in a single capability or a subset. Such a strategy is faulty because few retailers have the organizational slack needed to support such widespread activity and remain profitable. In addition, the interviewees believe that capabilities developed simultaneously receive relatively less investment and attention, are

subsequently of poorer quality than those developed in sequence, and ultimately produce lower than expected returns. Basically, retailers are best served by investing disproportionately large amounts in one or two primary capabilities and maintaining status-quo investments in others. We therefore posit that:

> *Proposition 2: All other things equal, retailers that focus their resources in a subset of primary capabilities will outperform those that equally spread resources across all primary capabilities.*

2.3.2 Secondary Capabilities

As the name suggests, secondary capabilities play supplementary roles. Primary capabilities are critical to all retailers, but the emphasis placed on secondary capabilities largely depends on a firm's strategic orientation and niche. For example, Nordstrom has used its novel shopping experience to create a service-based advantage, but this capability is relatively unimportant to lower-tier retailers where customer service expectations are considerably lower; customers' perceptions of brands are at least in part determined by the type of retail outlet (Kalwani et al. 1990). And although large firms must emphasize inter-functional coordination, this capability is less important to smaller firms where there is little to no functional separation and/or few people are responsible for decision-making (Eisenberg et al. 1998). Thus, secondary capabilities are only essential to a subset of retailers.

It is important to recognize that in themselves, secondary capabilities do not add value to the firm let alone produce competitive advantage (see Wade and Hulland 2004 for a similar discussion in the IS context). Secondary capabilities play such minor roles because they emphasize firms' internal capabilities and largely discount external factors like competitive intensity and technological growth. So though secondary capabilities may positively impact baseline performance, in themselves these capabilities do not promote superior competitive

positions. For instance, though inter-functional partnerships encourage synergy and efficiency (Ross et al. 1996 and Bharadwaj 2000), these advantages cannot be achieved in the absence of key information like that acquired through market sensing activities. And a novel shopping experience is fruitless in the absence of quality customer service programs. Basically, secondary capabilities serve supportive and facilitative functions, build upon and integrate existing resources, improve the efficiency of primary capabilities, and interact with primary capabilities to produce superior competitive positions. In addition to inter-functional partnerships and novel shopping experience, risk and divestment management also serve secondary functions. Per this discussion it is clear that primary capabilities perfectly mediate the secondary capabilities-competitive advantage relationship; in the absence of primary capabilities secondary capabilities do not lead to competitive advantage.

Recognizing that secondary capabilities do not directly lead to competitive advantage, we nevertheless argue that an appreciation of them leads to stronger competitive advantage than strictly focusing on primary capabilities. Our research specifically finds that primary capabilities have stronger and more durable performance implications when leveraged in conjunction with specific underlying secondary capabilities. Consider customer service, a primary capability (e.g. Anderson et al. 1994, Bolton 1998, Frigo 2002, and Homburg et al. 2002). The interviewees believe that this capability's impact is stronger and deeper when coupled with novel shopping experience and other secondary capabilities that enrich it. Therefore, complementary primary and secondary capabilities work together to promote retail success, an idea we develop in a subsequent section.

This discussion makes a few things clear. First, primary capabilities are necessary to succeed in the retail industry but secondary capabilities by themselves are not; secondary

capabilities are insufficient to achieve a superior retail position. Second, and equally important, is the idea that secondary capabilities "…exert their influence on the firm through complementary relationships with other firm assets and capabilities (Wade and Hulland, p. 109)" and primary capabilities in particular. By augmenting the functionality of primary capabilities, secondary resources promote retail advantage. Thus, as this discussion makes clear, secondary capabilities play indirect value creation roles. Building from this we argue:

> *Proposition 3: Four secondary capabilities — divestment management, risk management, inter-functional partnerships, and novel shopping experience — in themselves are not vital to retail success and interact with primary capabilities to produce superior competitive position.*

2.3.3 Fluid Capabilities

A third group of capabilities – fluids-- share properties of both primary and secondary capabilities. A fluid capability's value creation depends on stability in the external market environment (e.g., rate of economic growth, degree of technological change), as well as changes in price structures, production methods, and competitive structures (Lucas, Jr. and Gresham 1985 and Jaworski 1988). Effectively managing fluid capabilities requires that retailers understand how and when their value-creation paths change. Take for instance property management, a capability whose value is high (low) in strong (weak) economies (e.g. Holland et al. 1999 and Horrigan 2009). According to our interviewees, retail leaders acquire cheap, prime properties during poor economic periods and resell them for premium prices during stronger periods. Thus, property management can lead to superior performance during economic booms but merely serves a supportive function in weak economic periods.

In the same vein, IT skills readily become obsolete when technological advances are drastic but remain valuable when such changes are minimal. This effect is obvious among book

retailers, where IT has shifted emphasis from physical to electronic reading sources and has completely redefined the industry. Ben Austen, a columnist for *Bloomsberg Businessweek*, explains this effect nicely by stating the following:

> "Amazon was launched in 1995, and Barnes & Noble responded with its own website two years later. It took Borders another year to get started online, and the venture quickly lost tens of millions of dollars. In 2001, Borders made a deal with Amazon to run all of its online business—a partnership, in retrospect, that comes across as tragically shortsighted…Amazingly, Borders wouldn't end the Amazon deal and launch its own website until 2008."

Finally, the informants believe that the price-value relationship and distribution and logistics are disproportionately more important during periods of economic downturn. They specifically argue that effectively balancing price and value can be a source of competitive advantage in weak economies when consumers' real income and willingness to pay are relatively low, and price sensitivity is heightened (Blade and Parkin 2004, Lamb et al. 2011). Unfortunately, few retailers have the capital and slack needed to successfully deploy such programs in weak economies. In the same vein, retailers often face increasing pressures to cut costs by increasing the efficacy of their supply chain programs in weaker economic periods. This is not to say that logistics is unimportant during periods of economic growth, but instead that the marginal benefit received from this capability is sufficient to produce a competitive advantage in weaker economies.

From the above discussion, it is clear that in some instances fluid capabilities directly lead to competitive advantage, but in others they serve secondary and supportive roles. Effectively managing this dynamic requires that retailers are aware of how and when their value-creation paths change. Distribution and logistics and the price-value relationship are disproportionately more important in weak economic times, property management is a primary

performance driver in strong economic periods, and the importance of IT skills depends on the degree of technological change. When technological changes are radical, IT skills become outdated faster and vice versa. Thus, the degree to which a retailer should develop fluid capabilities depends on external market factors:

Proposition 4a: Four fluid capabilities—supply chain operations, price value relationship, property management, IT skills--exist in the retailing industry.

Proposition 4b: Supply chain operations and the price-value relationship directly lead to competitive advantage in weak economic periods, but must interact with primary capabilities to produce competitive advantage in strong ones; this effect flips for property management.

Proposition 4c: IT skills directly lead to competitive advantage when the degree of technological growth is fast, but must interact with primary capabilities to produce competitive advantage when technological growth is slow.

Based on this discussion it is clear that firms must actively monitor fluid capabilities and the external market, and adjust emphasis accordingly. This is best done by maintaining at least status-quo investments in all fluid capabilities, as they provide the foundation needed to efficiently convert fluid capabilities to primary ones. Without such flexibility, retailers either over or underestimate the value received from fluid capabilities, ultimately leading to underperformance. Teece et al.'s (1997) path dependency model presents a comparable argument.

2.4 COMPLEMENTARITY OF CAPABILITIES

Though capabilities are differentially important, we do not believe that a universal approach to managing primary, secondary, or fluid capabilities exists. Instead, retailers may be

equally successful by emphasizing different combinations of capabilities. This variation can be attributed to numerous factors including retailers' existing resources, employees' knowledge, the competitive environment, differences in target markets, and different strategic orientations.

Despite these company-specific idiosyncrasies, we believe that retailers must consider the degree of complementarity or fit when deploying capabilities. Porter (1996) identifies and describes three types of fit. He describes *first-order fit* as strategic consistency across functions and business units, and how resources are used. For example, if a firm adopts a high-cost philosophy this strategy should be supported by all of its functions and its resource deployment strategy should support this initiative as well (Porter 1996). Such consistency makes it easier to communicate, implement, and execute the high-cost strategy, but has no effective impact on the strategy itself.

Second-order fit occurs when activities and functions are not only consistent but reinforce one another. Consider novelty, which uses unique retail formats and atmospherics to achieve an element of surprise (Pearce 1989) and enhance the customer's shopping experience to encourage superior customer service. However, novelty does not support information gathering, interpretation, or other market sensing activities. So while novelty exhibits second-order fit with customer service, it does not have a comparable relationship with market sensing.

Finally, *optimization of effort* builds upon second-order fit by minimizing redundancy and effort to achieve operational efficiency. This third-level of fit is often achieved by efficiently designing products, coordinating information exchange within the company and between supply chain members (Porter 1996). The Gap optimizes its buying and supply-chain efforts "…by restocking its selection of basic clothing almost daily out of three warehouses, thereby minimizing the need to carry large in-store inventories (Porter, p. 72)."

Though Porter (1996) identifies various types of fit, he argues that a high degree of fit uniformly promotes competitive advantage. Zhu (p. 11, 2004) summarizes this effect nicely by stating the following: *"Complementarity* represents an enhancement of resource value and arises when a resource produces greater returns in the presence of another resource than by itself." The advantage stemming from first-order fit is rather rudimentary; consistency across capabilities ensures that existing advantages are not eroded and that other activities have cumulative effects. Such simplicity leads to short-term, rather than sustained competitive advantage. But in the case of second-order and operational fit, capabilities enable and augment one another and in doing so promote superior competitive positions over the long-run. A firm's ultimate goal is to leverage systems exhibiting third-order fit because they are the most sophisticated and complex, and ultimately lead to the strongest advantage.

Per this discussion, it is clear that the difficulty lies in deploying the correct capabilities. Since primary capabilities are the pillars of competitive advantage firms must deploy supportive capabilities that provide an effective foundation for their chosen primary capability or capabilities. Our research indicates that simultaneously deploying systems of complementary capabilities encourages investment and operational efficiencies, lowers costs, and ultimately produces competitive advantage (Porter 1996, Zhu 2004). Thus, retailers that (1) identify which secondary and fluid capabilities support their primary capabilities of interest and (2) subsequently deploy these capabilities together will (3) outperform their peers. Formally

Proposition 5: *When complementarity is high, secondary and fluid capabilities boost returns of primary capabilities significantly more than when complementarity is low.*

2.4.1 Systems of Capabilities

Earlier, we argued that supportive capabilities (secondary and fluid capabilities) build upon primary capabilities to produce competitive advantage that are more durable and stronger when capabilities are complementary. The latter part of this argument reflects this idea of systems. We define a system as "…a group of interdependent and interrelated components that form a complex and unified whole intended to serve some purpose through the performance of its interacting parts (Meyer and Miller 2011, p. 90)." Our review of archival records finds that while retail leaders tend to have a very common set of resources, what distinguishes them is their understanding of resource fit and their resulting decision to deploy systems rather than individual capabilities.

Zhu (2004, p. 11) explains the strength of systems by stating the following: "Individual resources can be duplicated across firms, yet what is far more difficult to duplicate is the resource configurations of technologies, infrastructure, business processes, and the related synergies among them." Porter (1996) adds that even if rivals are able to identify the components in systems, it is unlikely that they will be able to identify the actions and decisions needed to achieve a high degree of fit and subsequently achieve expected returns. The consequence of the inimitability of systems is stronger, more defensible competitive advantages than otherwise (Porter 1996, Zhu 2004).

The notion that systems of constructs exist within organizations is not new (e.g., see Simon 1969, Weick 1976, Levinthal and March 1993, Tiwana and Keil 2007, Tiwana 2008). It is widely accepted in ecology, biology, planning, transportation, sociology, and the information system and strategy fields that organizations and processes are systems supported by various overlapping components (Simon 1969 and Weick 1976). These components perform unique

functions but together advance a common goal. Not only do links and connections exist between components, but these components are responsive to one another and interdependent (Weick 1976). We argue that comparable links exist between marketing resources and in doing so identify four systems of capabilities retail leaders have used to achieve competitive advantage and explain how these systems work.

Table 2 proposes relationships between the primary and supportive capabilities (secondary and fluid capabilities). We inductively derived this table from the literature, archival records, and managerial interviews—updating and revising it along the way. We used the typology presented in Figure 1 as our starting point to distinguish the primary capabilities from the supportive ones. We then compared the interviewees' comments to pinpoint the combination of supportive capabilities underlying each primary capability and further identify the supportive capabilities strongly related to each primary. To reconcile conflicting opinions and identify relationships not highlighted by the interviewees we referenced the literature and archival records. Furthermore, the archival records provided concrete examples of retailers' resource deployment decisions. This process continued iteratively until a framework that all the authors agreed upon was created.

Table 2. Relationships between Capabilities

		Primary Capabilities			
		Brand Management	**Buying Ability**	**Customer Service**	**Market Sensing**
Fluid Capabilities	Distribution and Logistics	L-M	H	H	L
	IT Skills	L	L	H	H
	Price-Value Relationship	M-H	H	L-M	L
Secondary Capabilities	Property Management	L	L	M-H	L
	Divestment Management	H	L	M	L-M
	Inter-functional Partnerships	L	M	L-M	H
	Novel Shopping Experience	L-M	L	M	L
	Risk Management	L	M-H	M	L-M

Note: L= Low, M=Medium, H=High

As Table 2 suggests, systems are organized around the primary capabilities because they are the foundation of retail advantage and represent four pervasive pillars of retail success. It follows that retailers should leverage supportive resources to advance primary capabilities' functions and objectives. The supportive capabilities labeled as "low" and "medium" have little effective relationship with the associated primary capability, and those classified as "medium to high" and "high" critically impact their associated primary capabilities. Together with their associated primary capabilities, the critical resources form systems exhibiting second-order fit. Critical resources "enable" their associated primary capabilities and are not the outcomes of the primary capability's processes. Thus, for example, IT skills enable market sensing and is a component of its system but risk management is an outcome of market sensing activities and is therefore not included in this system[2].

Our entries in Table 2 (and the corresponding Figure 2) are speculative at this point, they are based on related arguments in the literature as well as insights generated through our managerial interviews. In the discussion below, we identify the components in each of these systems and explain why they are included and other capabilities are not.

2.4.1.1 Brand system. The first system centers on brand management and entails developing independent pricing, positioning, promotion, and placement strategies for each brand, while simultaneously minimizing brand cannibalization and ultimately maximizing profit (Aaker 1991). These goals are best accomplished by managing the price-value relationship and divesting when appropriate. For lower to mid-tier retailers, the price-value relationship supports

[2] It is important to recognize that while elements in systems are linked and responsive, they maintain a degree of distinctness. Thus, according to Orton and Weick (1990, p. 205), these elements are "loosely coupled."

brand management by allowing firms to simultaneously appeal to price and quality sensitive customers so that they reach a variety of customer segments. However, for upper-tier retailers like Nordstrom's, the goal is to remain focused on an elite customer segment but better serve them by shifting the relative emphasis placed on price as opposed to value. For example, in its 2008 annual report Nordstrom's claims the following: "…it became clear that value and price sensitivity are important factors to our customers...Our merchants are working hard with our vendors to provide the right balance of quality, value, and price points to consumers (p.15)." In line with this, Nordstrom's website indicates that customers can find brands as varied as Calvin Klein to Jimmy Choo. Though the Calvin Klein brand offers average quality and reasonably priced products, the Nicole Miller brand offers high quality products at high prices.

Divestment management plays a different, though equally important role in supporting brand management initiatives. Firms may find it necessary to divest brands that are unprofitable or overlap too much with more preferred brands to establish unique DNAs for each of their brands (Mahajan et al. 1990). Despite the apparent benefits of divestment, we recognize that retailers may find it difficult to maintain the assortment of brands for which they are noted at price points that consumers demand. Those who strike this balance will achieve competitive advantage.

It is clear that the price-value relationships and divestment management work in opposite directions to support brand-based advantage. The price-value relationship is expansionary and allows firms to target customer segments with distinct preferences, but divestment management emphasizes contraction with the goal of making sure the retailers' brands remain focused and relevant. Macy's has nevertheless successfully integrated both divestment and the price-value relationship to build a branding advantage. In the company's 2004 Annual Report its CEO Terry

J. Lundgren stated: "Recognizing that great product assortments and brands in our stores create customer excitement and build loyalty among shoppers…we are pursuing a good-better-best merchandising strategy that aligns our assortments with our core customer's expectation for price and quality. And we are more tightly editing assortments to reduce duplication and clutter on the selling floor (Macy's 2004 Annual report, p. 6)." As this example and proceeding discussion suggest, price-value and divestment management not only make it easier to execute brand management programs do increase their functionality as well. Thus, these capabilities form a second-order system.

The question then arises, why does the brand system consist of only two supportive capabilities? Consider IT skills, inter-functional partnerships, and risk and property management. Though these capabilities are important, they do not significantly help managers create unique DNAs for their brands. The same goes for a novel shopping experience; although a novel shopping experience can be used in conjunction with brand management to communicate a certain aura, this capability is not as instrumental to creating unique positions for each brand. And a retailer's distribution system may impact prices charged for its brands but does not help it position each brand uniquely. Because these six capabilities are relatively less important to brand management, they are excluded from this system. As this discussion makes clear, the aforementioned six capabilities may be used in conjunction with brand management to communicate a consistent image but do not facilitate the development of unique brand positions.

2.4.1.2 Service System. The ability to provide superior customer service has been found to have a strong link to increased overall firm performance (e.g., Anderson *et al.* 1994; Bolton 1998). This can come about, for example, as a result of being able to provide enhanced value to customers (via unique product – service combinations), through the deepening of customer

relationships, and by gaining customer insights during service interactions (Homburg *et al.* 2002). Customer service is sustained by three supportive capabilities. First, successfully executing a customer service program requires that retailers consistently deliver goods to customers in a timely fashion by operating quality distribution and logistics programs. By ensuring the right assortment of goods is available and that these goods are in usable condition, retailers encourage customer loyalty and higher levels of service.

Second, retailers are emphasizing IT skills to minimize check-out times and increase the functionality of their websites to improve service levels. For instance, "[Nordstrom's]… enhanced the customer experience through better use of technology, increased the speed and convenience of shopping, and provided more responsive products and services. The company continues to build on its legacy of personal connections with customers by innovatively extending the service experience and meeting customers' changing expectations in-store, online and through mobile devices… this strategy and these activities will lead to additional market share gains and higher returns over the long term." Many top retailers are also investing in technology startups to build effective multichannel engagement strategies. For example, Home Depot recently acquired technology startup Black Locus to help it compete in the dynamic online world (Banjo 2013). It is hoped that by increasing the consistency and functionality of their mobile, digital, in-store, and social channels Home Depot and others will be better able to engage and ultimately serve customers.

Finally, retailers must understand how property management promotes customer service. First, colocation decisions offer greater convenience to consumers by minimizing their shopping time and effort. Second, retailers must maintain the physical properties through systematic functional and aesthetic upgrades. Such investments create a customer friendly atmosphere and

in that sense promote service-based advantages. This relationship is most clear when looking at K-Mart whose underinvestment in property management decreased its short term expenses and contributed to its superior short-run performance (K-Mart 2006-2008 Annual Reports). According to the interviewees, this strategy backfired over the long-run--negatively impacting the retailer's shopping atmosphere and service rating, its ability to provide a quality shopping experience, and contributing in part to its demise.

From this discussion, it is clear the effects of the aforementioned supportive capabilities extend beyond mere consistency. Companies can achieve high customer service levels in the absence of strong IT skills, property management programs, and supply chain initiatives, but having these elements increases the value of one's customer service programs. These supportive capabilities increase the functionality and overall value received from service-based initiatives and in doing so form a system exhibiting second-order fit.

Sears and Lowe's provide practical examples of this system. According to Sears' 2006 Annual Report it deployed these capabilities to increase its service levels. The company specifically leveraged a service-based initiative designed to: improve the company's agility and ability to deliver merchandise, complete its e-commerce development center and increase its technical functionality, and improve the appearance of its stores to augment customers' in-store-shopping experiences. Lowes, however, exclusively focuses on the logistics aspect of customer service. Since 2002 the firm has aggressively developed its distribution network with the goals of optimizing inventory and distribution, insulating it from natural disasters and other unforeseen events, and ultimately offering its customers more convenience and better service.

Though Sears, Lowe's, and other retailers in our sample have created service-based advantage none of these companies simultaneously leverage all components of the service

system. Failure to simultaneously incorporate each of these facets prevents retailers from achieving expected returns from their service programs and can lead to relative under-performance.

Importantly, we learn that the emphasis placed on novelty largely differs across firms. For example, the managers argue that novelty only reinforces customer service for premiere retailers like Nordstrom's, but is relatively unimportant for value-based retailers like Wal-Mart and Big Lot's (Kalwani et al. 1990). Similarly, Inter-functional coordination ensures that large companies execute concerted service efforts, but is largely unimportant to smaller firms where functional separation is minimal and relatively few people are responsible for the company's operations (Eisenberg et al. 1998). Risk management is not included in this system because its impact on customer service is indirect. Finally, divestment management and the price-value relationship tend to be outcomes rather than enablers of customer service programs. Retailers may find it necessary to eliminate certain relationships or shift their emphasis on the price-value continuum to enhance customer service.

2.4.1.3 Sensing System. The third system revolves around market sensing—the ability to gather, interpret, and respond to pertinent market information (e.g. Day 1994, Kohli and Jaworksi 1990). Those retailers that are "More attuned than their peers to reading market signs, high-performance retail grocers [retailers] enjoy insights into both consumers and competitors—insights that give them both first-mover advantage and the ability to respond rapidly to threats and challenges with a steady stream of small-scale product and offer innovations (Accenture, p.9)."

Market sensing is reinforced by inter-functional partnerships and IT skills. Kohli and Jaworski (1990) argue that the information received from market sensing activities is fruitless if

it is not used to create consistent, cross-functional programs to better serve consumers and react to market changes. They note that inter-functional partnerships facilitate information dissemination which in turn encourages "…concerted responses to market needs… (Kohli and Jaworksi 1990, p. 56)." Thus, inter-functional partnerships convert the information received from sensing into valuable programs and in that sense enable market sensing.

Although previous works do not document the relationship between market sensing and IT skills, the interviewees make this link. According to them, IT skills support market sensing activities in three ways. First, IT skills facilitate information collection and in that sense serve as an antecedent to market sensing. Second, IT skills expedite the rate at which key information is disseminated and in this case work concurrently with market sensing activities. Third, IT skills are vital to creating actionable programs from market sensing activities. According to the interviewees, IT skills help retailers analyze customer information, interpret trends, effectively respond to opportunities in the external market environment, and efficiently respond to competitive threats.

Together with market sensing programs, Lowe's has leveraged its IT skills and inter-functional partnerships to build a knowledge-intensive customer relationship database. Through this database Lowe's has not only been able to efficiently and effectively respond to customers' "…changing attitudes and discriminating needs (Lowe' 2002 Annual Report, p.6)," but respond to competitors to gain a retailer advantage. From this discussion and example it is clear that the market sensing capability exhibits second-order fit. Specifically, the capabilities comprising the market sensing system build upon and reinforce one another to create a feedback loop. Firms begin by leveraging IT skills to gain pertinent information, after which they disseminate this information using inter-functional partnerships to develop a market sensing program which is

then assessed using IT skills, etc. So together these aforementioned capabilities increase the functionality of and value received from market sensing capabilities, and doing so exhibit second-order fit.

The other supportive capabilities are outcomes of market sensing activities rather than its precursors or reinforcing elements. Thus, these capabilities are excluded from the market sensing system. For instance, firms may adjust their distribution programs (i.e. ordering levels, turnover times) and the emphasis placed on price relative to value in response to information acquired during market sensing activities. And while market sensing allows firms to acquire information needed to minimize risks, risk management does not facilitate the collection and interpretation of information and is therefore non-essential to the market sensing activities. Additionally, firms may find it necessary to emphasize (or deemphasize) novelty given their firms' overall goals and changing customer preferences, both of which become more refined through market sensing activities.

2.4.1.4 Buying System. The final system is built around buying ability: a retailer's ability to consistently buy merchandise with consumers' demands in mind and maintain the mix of "traditional" products for which they are noted (Frigo 2002). The interviewed managers noted that a key to optimizing buying ability is developing strong relationships with a limited number of supply chain partners. Such relationships allow retailers to establish supply chain power, increase the efficiency of supply chain operations, minimize prices charged to consumers, and ultimately maximize profit margins. In addition, without supply chain coordination firms may overestimate demand, misinterpret trends, and generally fail to execute quality buying initiatives. Basically, supply chain management ensures that the assortment and quantities purchased by retailers match consumers' demands.

Failure to foresee and effectively manage supply chain erosions and comparable fat tail risks negatively impacts buying ability as well. Risk management supports buying advantages by making sure retailers' supply chains have the foresight and flexibility needed to efficiently respond to environmental changes and maintain their product assortment. According to Ruud Bosman, Executive Vice President of FM International "Prior to Hurricane Katrina, in 2005, companies whose supply chains were dependent upon access to the Mississippi River via the port of New Orleans, LA, USA might have imagined that contracts with multiple shippers inoculated them against transportation risk. After Katrina, one of the most devastating natural disasters in the U.S. history, the fallacy of that thinking was exposed: nothing was moving through New Orleans (p.8)." Not only did this supply chain disruption make it more difficult for retailers to get products to consumers in timely fashions, it also increased their distribution costs, and in part eroded their performance advantages.

Implicit in this discussion is that buying advantages are created by minimizing the volatility and vulnerability of future cash flows. Our research specifically indicates that both strong supply chain and risk management ensure that retailers' buying patterns reflect trends in the external environment, that retailers maintain the mix of products for which they are noted, and in doing so minimize the risks of future cash flows. The joint effects of buying ability, distribution and logistics, and risk management are appreciated by many retail leaders like Macy's. Per the company's 2011 Annual Report:

> "The Company's procurement of goods and services from outside the United States is subject to risks associated with political or financial instability, trade restrictions, tariffs, currency exchange rates, transport capacity and costs and other factors…All of these factors may affect the Company's ability to access suitable merchandise on acceptable terms, are beyond the Company's control and could adversely impact the Company's performance."

` As this example suggests, instead of just exhibiting continuity, supply chain and risk management activities enable one another, and together facilitate buying programs. Although buying advantages exist without supply chain and risk management, these supportive capabilities increase the value received from buying programs and in doing so extend their associated advantages. Thus, these capabilities form a system exhibiting second-order fit. Importantly, however, the other supportive capabilities do not facilitate the purchase of relevant merchandise. For instance, both novel shopping experience and property management may be used along with buying ability to communicate a consistent image but do not help with procurement. In the same vein, divestment is an outcome of buying programs as firms may find it necessary to eliminate certain merchandise because it no longer reflects consumers' demands. And though IT skills can be used to manage product assortment, they do relatively little to aid in purchasing merchandise. Unlike the three previously mentioned capabilities, inter-functional partnerships moderately impact a retailer's buying ability. Through Kohli and Jaworski's (1990) work we learn that inter-functional coordination facilitates the collection of pertinent information through market sensing activities, information which is used to adjust buying programs to reflect consumers' demands. Basically, inter-functional coordination indirectly rather than directly encourages buying programs causing it to be omitted from this system.

The four aforementioned systems are illustrated in Figure 2. By clearly identifying the systems of retail capabilities, rather than explaining all the relationships between primary and supportive capabilities, this figure reiterates our point that retailers are best served by emphasizing groups of interrelated capabilities.

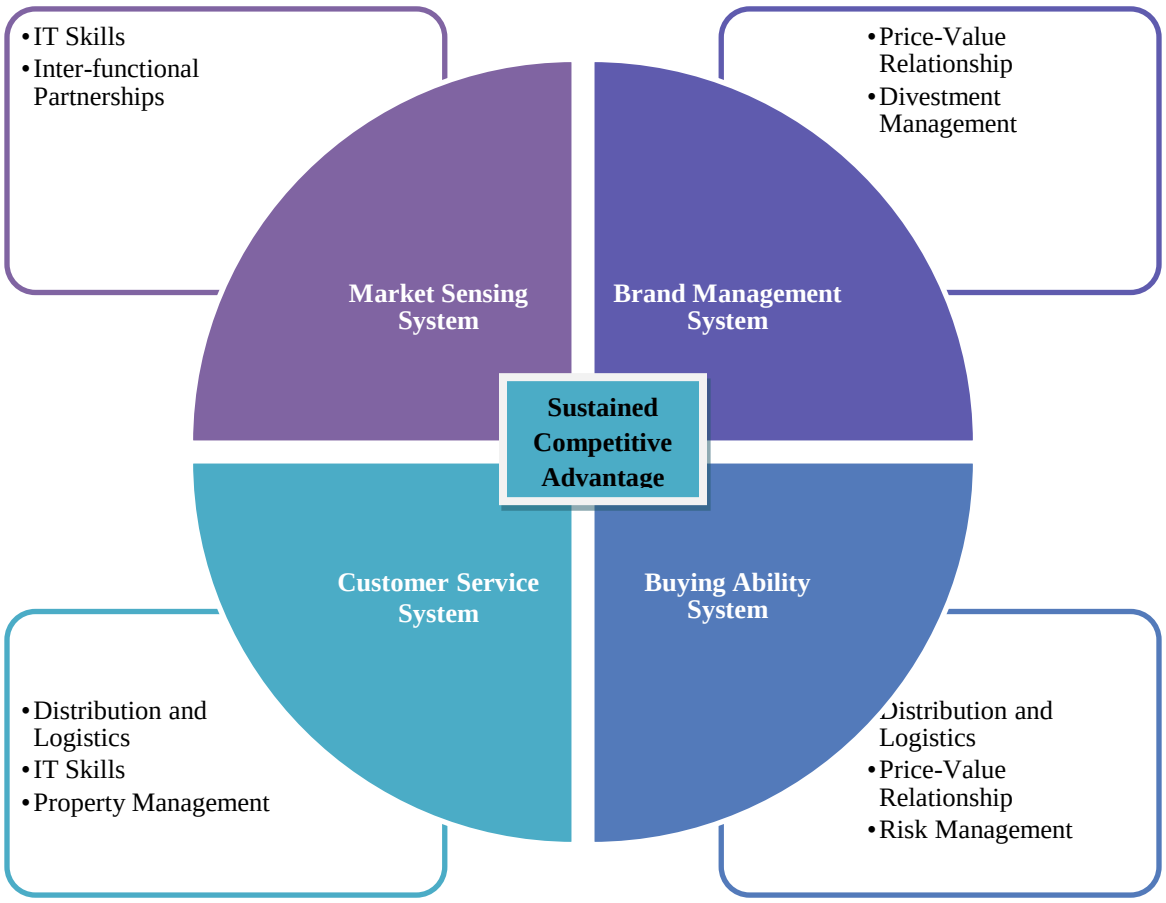

Figure 2. Systems of Retail Capabilities

2.5 DISCUSSION

The propositions set forth have important and direct managerial and theoretical implications. Key to our work is that retailers often establish competitive advantages but rarely sustain them because they: (1) attempt to develop multiple primary capabilities at once instead of focusing on one or two, (2) treat all capabilities as equally important, and/or (3) emphasize individual capabilities instead of systems. Even our review of industry leaders' archival records indicates that few (if any) value all three of these aforementioned processes.

Recall from our earlier discussion that few retailers have the capital and organizational slack needed to simultaneously develop multiple primary capabilities well. Emphasizing many capabilities may lead to superior short-term performance (because the benefits of what is done are felt over relatively short time periods), but is likely to be unsustainable over the long-run because capabilities allotted insufficient investments produce weak and indefensible competitive advantages.

Although we have devoted considerable time to defining primary, secondary, and fluid capabilities and explicating each group's value-creation path we again revisit this topic here. Primary capabilities warrant the most emphasis, while secondary capabilities deserve less. Further, the emphasis placed on fluid capabilities depends on external market factors. An appreciation of a capability's differential importance prevents over-emphasis in non-critical areas and under-emphasis in critical ones, maximizes the productivity of one's investments, and ultimately leads to superior retail performance.

Perhaps the central managerial implication of this research is that we (1) identify systems of capabilities retailer leaders have used and (2) explain how they may produce superior competitive position. We specifically argue that jointly leveraging primary and supportive capabilities leads to competitive advantage, but these advantages are stronger and more durable when the capabilities deployed reinforce one another. So, though secondary capabilities moderate the primary-performance relationship and fluid capabilities also moderate this relationship, their effects are significantly larger and more beneficial when they complement the primary capability of interest. Failure to appreciate the importance of capability fit and understand how it promotes superior performance may prevent retailers from maximizing value from their capabilities, and establishing sizeable and long-lasting competitive advantages.

Importantly, we find that not all systems are created equally. Instead, as Porter (1996) argues, the extent of competitive advantage increases with fit between capabilities; first-order systems provide temporary advantages, second-order systems provide more sustainable advantages, and third-order systems provide the most durable advantages. It therefore appears that retailers must make an effort to transition their first-order systems into second-order ones, and ultimately push to achieve third-order fit to maximize performance over the long-run.

Another key to managing systems is appreciating the strategic tradeoffs inherent to deploying one system over another (Porter 1996). Although some supportive capabilities are shared between systems, integrating a capability in one area limits its functionality and productivity in others. For example, IT skills function differently in the customer service and market sensing systems so that using IT skills in both areas limits its productivity and detracts from both systems. This means that neither system will reach its expected performance level. So while retailers may successfully develop market sensing and buying systems or brand and service systems, overlap between other systems should be avoided. To note, although Macy's has leveraged its buying and brand management initiatives to achieve competitive advantage Porter (1996) would argue that both of these systems are actually underperforming; the potential advantages from these systems are stronger and more durable than what we are currently seeing.

Importantly, systems take time to build and their performance effects are rarely if ever immediate. For example, retailers must continuously evaluate systems to improve the fit and cohesiveness of capabilities, identify potential sources of slack, and identify capabilities that should be added to (deleted from) the system. This temporal gap is especially strong for the systems involving more complex systems--customer service and buying ability—because they involve relatively more supportive capabilities making it more difficult to achieve cohesiveness.

This is not to say that retailers should postpone development of service and buying programs, but instead that it may take longer for performance-based advantages to come to fruition than advantages from the other systems. The opposite is true for brand management and market sensing. Because these systems involve fewer capabilities, achieving a high degree of fit and the associated performance increases will be more immediate.

While novel shopping experience is important to retail success, this capability is not critical to any of the systems. Novel shopping experience may be an outcome of a retailer's market sensing and customer service programs, and can be used to reaffirm a company's buying and branding strategies. It follows that novelty may be the least significant retail capability and it should be the least of a retailer's concerns. Specifically, firms should develop novel shopping experience after securing strongholds in other areas.

Despite these recommendations we recognize that a retailer's existing resources, strategy, and competitive position, as well as competitors' strengths and positions may encourage different courses of action. Thus, retailers may be more successful developing capabilities in a different order or a different set of capabilities all together. And though retail leaders have used the identified systems to achieve competitive advantage, this does not mean that other resource combinations cannot be valuable. On the contrary, it appears that retailers may be successful by emphasizing a unique system of capabilities tailored to its strategy. However, the systems identified appear to be minimal requirement needed to achieve competitive advantage in the retail industry.

2.5.1 Theoretical Implications

This research makes three theoretical contributions to the field. First, we identify twelve key capabilities that foster retail advantage.

Second, we explain how each of these capabilities impacts retail performance. We argue that capabilities can be grouped into one of three categories—primary, secondary, or fluid—each of which uniquely impacts retail performance. As primary capabilities, market sensing, brand management, customer service, and buying ability are vital to all retailers and in themselves lead to competitive advantage. Comparatively, secondary capabilities build upon primary capabilities to improve performance and the emphasis placed on them largely depends on the retailer's strategic orientation. Four such capabilities exist in the retail context: divestment and risk management, novel shopping experience, and inter-functional partnerships.

Finally, the effect of a fluid capability's value creation path depends on external market factors. Distribution and logistics and the price-value relationship directly lead to competitive advantage in weak economies, but must interact with primary capabilities to produce competitive advantage in strong economies; the opposite holds true for property management. Finally IT skills directly lead to competitive advantage when technological changes are radical, though they require the presence of primary capabilities to create advantage when such changes are minimal. This perspective should be studied in future works to further our understanding of competitive advantage.

Third, we suggest that systems of interrelated capabilities exist. We argue that leveraging systems of capabilities (rather than individual capabilities) can lead to sustained competitive advantage. This idea of systems further supports our point that retailers must maintain at least status-quo investments in all areas, because components are responsive to one another and under-investment in one area has far-reaching effects. Viewing capabilities in isolation encourages retailers to focus on individual capabilities instead of the benefits provided to consumers and ultimately prevents them from achieving sustained competitive advantage.

3.0 Essay II: Survival of The Fittest: How Competitive Overlap and Retail Format Impact Incumbents' Vulnerability

Many incumbent retailers are finding it increasingly difficult to succeed in the face of growing challenges from discounters and large national chains that have eroded the high profit margins once characteristic of the retailing industry (Hausman and Leibtag 2004; Jia 2008; Singh et al. 2006). For example, warehouse clubs and supercenters have experienced a 10.1% increase in food expenditures over the past decade, while supermarkets have experienced a 3% decline (Sichtermann 2011). Singh et al. (2006, p. 457) summarize this phenomenon nicely: "Rapid growth of alternative retail formats, in the form of mass discounters, wholesale clubs, and supercenters, has transformed not only the competitive structure of the industry, but also the way in which consumers shop."

Researchers have argued that incumbent retailers can address these mounting challenges by pursuing one of two competitive strategies — differentiation or emulation, (e.g. Ailawadi et al. 2010; Porter 1980 and 1998). Differentiation allows firms to appeal to niche segments that are otherwise poorly served by dominant retailers and create a perception of exclusivity (Rogers 2001). Lane Bryant, a clothier that specializes in offering fashionable plus size clothes, is one of the most prominent examples of differentiation in the apparel industry. Conversely, emulation suggests that firms are best served by copying a dominant retailer's business model (Ailawadi et al. 2010; Rogers 2001). Because Wal-Mart is the largest firm, this may mean copying its strategy rather than developing proprietary ones.

Firms can offer services aimed at both emulation and differentiation and choose the set of services to offer based on their overall strategic orientation. For example, the addition and/or expansion of film processing and pharmaceutical services allow firms to emulate Wal-Mart, but

changes to loyalty programs lead to differentiation. We therefore view the services chosen by a firm as a reflection of their strategic direction decision, as will be described later. We see this as a continuum, a relationship we capture by introducing the notion of "strategic service orientation" (SSO).

This paper adds to the existing literature in five ways. First, we explain how incumbents' existing strategies impact sales lost to new entrants. That is, instead of studying incumbents' responses to new competitors, we argue that incumbents' existing strategies can insulate them from harm. Second, we clarify the role services play in competitive environments. As our review of past literature will show, previous work has studied how services impact baseline performance, but we are the first to link them to competitive advantage. In addition, we test the differential effectiveness of two competitive positions —differentiation and emulation— identified by Porter (1980, 1998). Of particular interest to us is understanding which of these positions best minimizes customer switching, where switching is defined as customers' decisions to spend a larger share of their wallets at new entrants. We also investigate the differential performance effects of new discounters and new upscale stores. Although new upscale stores pose significant threats to incumbent retailers, previous literature has only studied the effects of new Wal-Marts. Finally, we study the role that an incumbent's retail format has on its ability to compete against new entrants. Here, we are interested in understanding if the optimal strategy (emulation or differentiation) is consistent across incumbent format or if incumbents of different formats are best served by emphasizing different strategies.

To accomplish these goals, the remainder of this paper is divided as follows. We first review relevant literature, after which we explain the basis of our SSO construct. In the third section we introduce our hypotheses. We then discuss our methodology and present the results

from a quasi-experiment which uses field data. Finally, we draw conclusions from our results, and close with a discussion of our work's theoretical and managerial implications.

3.1 RETAIL PERFORMANCE

Retail performance can be influenced by both store-level (e.g. floral, pharmaceutical, and food services) and competitive market-level factors. Both sets of factors have the potential to help firms maximize their performance and compete against new entrants. A review of recent works that study the effectiveness of these factors identifies several gaps that are discussed in more detail below.

3.1.1 Store-level Drivers of Retail Performance

One set of retail performance research has focused on various determinants of retail success, including competitive, store-level, customer, and market characteristics. This research indicates that each of these variables is important, though some are disproportionately more so. For example, Hoch et al. (1995) demonstrate that consumer and competitive factors account for 67% of the variation in price elasticity. However, the importance of consumer and competitive factors largely disappears when market factors are also considered (Reinartz and Kumar 1999). Reinartz and Kumar (1999) find that market factors are disproportionately more important than other factors and that firm location is a particularly important determinant of retail performance.

Recently, the retail performance literature has shifted towards understanding the performance impacts of individual services. This research indicates that floral and pharmaceutical services (Pauler et al. 2009), and scrambled merchandising significantly increase retail sales (Reinartz and Kumar 1999; Kumar and Karande 2000). In addition, assortment breadth, service quality, store atmosphere, and a low pricing strategy can be used to increase store patronage (Pan and Zinkhan 2006). Food services (e.g. a hot bar or restaurant) have a

negligible impact on performance, while it is unclear whether film and banking services improve firm performance (Reinartz and Kumar 1999; Kumar and Karande 2000). Also, selling more non-grocery items increases dollar sales but negatively impacts sales per square foot. To explain this result, Kumar and Karande (2000) argue that non-grocery items tend to be very expensive and bulky, which together negatively impact sales productivity.

3.1.2 Competitive Drivers of Retail Performance

This research differs from that reviewed earlier in that it does not study performance at the store-level, but instead looks at returns relative to one's competitors. It indicates that location, low pricing, assortment, customer service initiatives, cleanliness, and shopping environment can be leveraged to achieve competitive advantage in retail (Arnold et al. 1983). Of these factors, superior location and low pricing are the only two that can be leveraged to achieve competitive advantages over extended periods, while the others merely produce advantages over the short-run (Arnold et al. 1983).

Other studies have examined how best to respond to a new Wal-Mart entry, and found that differentiation is superior to emulation (Ailawadi et al. 2010; Basker and Noel 2009). Retailers can minimize Wal-Mart's impact by increasing prices, shrinking assortments, increasing stock of top-tier and private label brand, increasing the breadth and depth of their promotional campaigns, and adopting other activities to exploit niche populations (Ailawadi et al. 2010). In line with this, Basker and Noel (2009) demonstrate that prices tend to drop 1% to 1.2% after Wal-Mart's entry and that this drop is significantly steeper for low-end firms that directly compete against Wal-Mart. Such a price decrease makes it difficult for these firms to achieve favorable margins, be profitable, and ultimately be successful.

Although our paper is within the tradition of that established by these earlier works, it is directed towards issues not addressed by these papers. For example Ailawadi et al. (2010) look at the marketing mix, while we study services. Existing research also assumes that incumbents change their offerings in response to new entrants, but we argue that few retailers drastically alter their offerings in response to a single new entrant in a local market. This is not to say that strategic reaction is unimportant, but instead that a firm's existing strategy may represent its best option to successfully compete against new entrants in general. Similarly, much research in this area strictly focuses on new Wal-Marts, but fails to recognize that other retailers – and upscale stores in particular – also pose significant threats to established retailers. Finally, although existing works have studied the impact of firms' service offerings on store performance, we are the first to study their ability to insulate incumbent retailers from new entrants.

3.2 STRATEGIC SERVICE ORIENTATION

Porter (1980, 1998) identifies differentiation and cost leadership as generic strategies firms can use to achieve competitive advantage. Differentiation allows firms to create a perception of exclusivity, charge premium prices, and ultimately create a highly defensible competitive position. Thus, a differentiation-based focus allows incumbent retailers to maintain unique competitive positions relative to new entrants.

In contrast, firms that attempt to achieve cost leadership must engage in activities designed to increase efficiency, take advantage of economies of scale, minimize overhead controls, and pursue other cost-minimizing activities. In line with this, the strategy literature suggests that emulation leads to cost-based advantage. Emulation allows firms to piggy-back on competitors' investments, learn from their mistakes, and identify competitive deficiencies that can be exploited (Lieberman and Montgomery 1998). Similarly, emulators can benefit from their

peers' advertising campaigns aimed at introducing and/or educating markets about new services, again minimizing their costs.

Although the terms "emulation" and "differentiation" imply strategic reaction, recall that our research seeks to understand how incumbents' existing strategies allow them to compete against new entrants. As such, we use emulation and differentiation to capture the degree of similarity and dissimilarity between an incumbent's service offerings and those of a new entrant. We introduce the idea of *strategic service orientation* (SSO) to capture the relative emphasis firms place on services aimed at emulation versus those aimed at differentiation. This construct builds on the idea that firms' service offerings lie along a continuum -- they can exclusively offer services that emulate or exclusively offer services that differentiate, or some combination of both. This approach is similar to that used by Mizik and Jacobson (2003) for their strategic orientation construct, which assesses the relative emphasis firms place on activities aimed at value appropriation versus value creation by subtracting the amount of a firm's investment in resources aimed at value creation (e.g., R&D expenditures) from its investment in value appropriation (e.g., advertising expenditures), and dividing this value by the firm's total resources. In line with this, we determine a retailer's SSO by subtracting the number of services aimed at differentiation from the number of services it offers aimed at emulation, and then divide this value by the total number of services offered by incumbent *i* relative to new entrant *j* at time *t*. Formally:

$$SSO_{ijt} = \frac{\#\ emulation\ based\ services_{ijt} - \#\ differentiation\ based\ services_{ijt}}{Total\ \#\ services_{ijt}}$$

Emulation measures the degree of service offering similarity between incumbents and new entrants, while differentiation captures the degree of uniqueness or difference between the

two retailers. Thus, incumbents that share many services with a new entrant have positive SSO values, but those with many unique services relative to the new entrant have negative SSO values. SSO is computed for each incumbent relative to the new entrant. (It is important to note that this measure of SSO is only defined once a new competitor enters the incumbent's market.) We argue that the degree of similarity (dissimilarity) is not absolute, but instead depends on the stores involved (e.g., Giant Eagle could be perceived as highly similar to Trader Joe's, but very dissimilar from Wal-Mart).

3.3 HYPOTHESES

The relationships of interest are summarized in Figure 3. As this figure shows, we hypothesize that SSO directly impacts an incumbent's sales losses to new entrants. This hypothesis is broken into two parts. We first consider the effect of new Wal-Marts in H1a and new specialty stores in H1b. Hypothesis 1 suggests that the new entrant's format (if the new entrant is a specialty store or not) moderates the SSO-performance relationship. Further, we argue that the SSO-incumbent performance relationship is moderated by characteristics of the trade area (e.g., retail density, the physical distance between the incumbent and the new entrant) that can impact the incumbent's SSO. These relationships are addressed in hypotheses 2 and 3. Finally, we include measures of household income and household size as control variables because both have been shown to be important in previous studies (e.g. Bell et al. 1998; Bell and Lattin 1998).

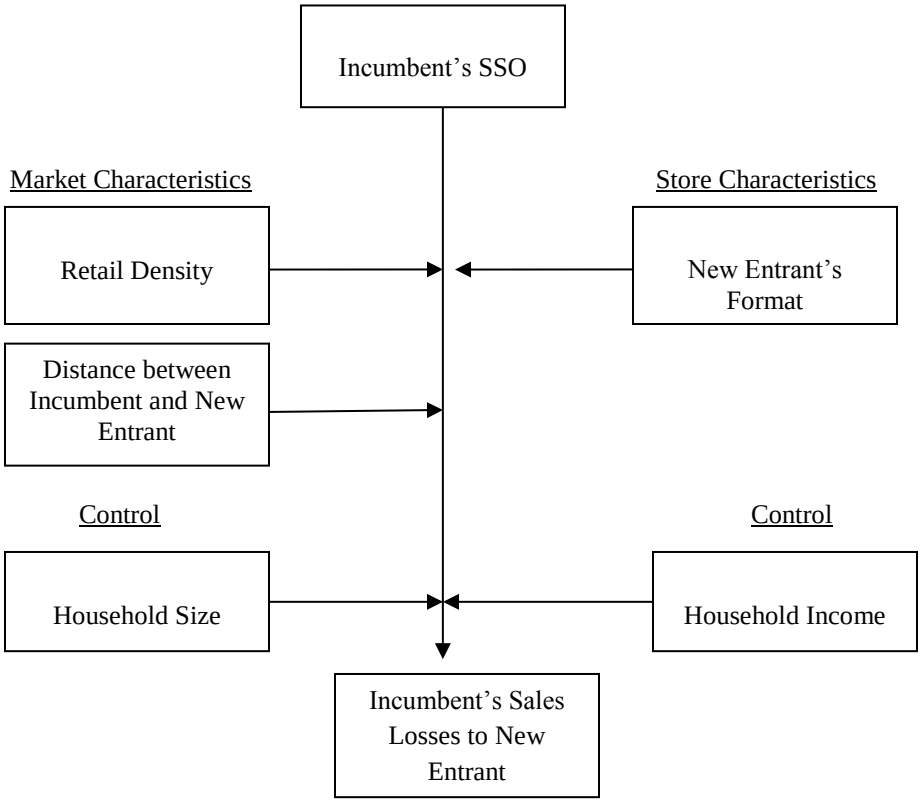

Figure 3. Conceptual Framework

3.3.1 Main Effect of SSO on Sales

Although Rogers (2001) and Singh et al. (2006) provide solid descriptions of emulation and differentiation, they treat these strategies as equally valuable. However, competitive positions are differentially effective, with firms often best served by positioning themselves as unique and adopting differentiation-based competitive positions (e.g. Ailawadi et al. 2010; Basker and Noel 2009). For example, Steenkamp and Dekimpe (1997) argue that differentiated private label brands make retailers significantly less vulnerable in those categories. Ailawadi et al. (2010) add that in the face of new discounters, incumbent retailers are best served by emphasizing top-tier brands, modestly increasing prices, and engaging in other activities that minimize overlap.

Rogers (2001) advances this pro-differentiation position from a managerial perspective by arguing that the key to thriving in the grocery industry is establishing competitive advantages in customer service, perishables, community involvement, and other areas where new entrants are deficient. Taking advantage of these weaknesses allows firms to better serve niche populations, establish advantages in these populations, create barriers to switching, and subsequently lessen but not completely erase new entrants' advantages. Without such barriers customers become deal prone and switch between retailers to find the best deals.

Though valuable, the aforementioned works study strategic reaction and the long-run implications of retail performance, while our paper seeks to understand how incumbent retailers can minimize the immediate effects of new entrants and is more short-run oriented. The first-mover literature offers insight into the optimal competitive position over the short-run by suggesting that being the first successful entrant to a market allows firms to establish large and loyal customer bases that are largely unwilling to switch to new competitors because of the opportunity costs of doing so (Carpenter and Nakamoto 1998; Lieberman and Montgomery 1998; Makadok 2001). Thus, incumbent retailers are able to establish competitive barriers that limit customer switching, at least over the short-run.

For instance, though upscale stores like Trader Joe's and Whole Foods are rapidly entering the Columbus market, the first-mover literature suggests that Giant Eagle Market Districts (Market Districts) will suffer smaller sales losses from these new entrants than Giant Eagle's more mainstream stores. This difference exists because Market Districts in themselves are upscale, their offerings are comparable to the new entrant's, and there is thus little motivation for customers to switch. But first-mover advantages diminish when the new entrant provides a unique and valuable service offering (Shankar et al. 1998). In this case, the new entrant captures

a share of the incumbent's consumers whose demands are not adequately met and switching from the incumbent ensues at a high rate. As this example suggests, consumers are largely unmotivated to switch to new entrants when their needs are already met but are motivated to switch when the new entrant provides a valuable offering not already available in the market (Shankar et al. 1998).

So while it is important that incumbents focus on niche populations to minimize the degree of direct competition over the long term, serving as the benchmark against which the new entrant is compared is best over short periods. Taking this a step further, differentiating may minimize the new entrant's effect over the long-run, but being highly similar to the new competitor through emulation best minimizes immediate sales losses and is therefore superior over the short run. We argue that when new entrants do not bring anything unique to target trade areas they will find it difficult to erode the competitive advantage already established by incumbents that are highly similar to them. Therefore, incumbents with higher SSO values (i.e., emphasize emulation over differentiation) should experience significantly smaller sales losses from new entrants — upscale retailers and Wal-Marts -- than incumbents with lower SSO values. Following this:

> *H1: Retail incumbents that have more similar service offerings to new entrants (i.e., higher SSO values) will outperform their peers after new competitor entry.*

While we argue that emulation minimizes sales losses from new Wal-Marts and new upscale retailers, this effect should be stronger in the latter case. Research suggests that incumbents find it particularly difficult to compete against Wal-Mart because of its size, resources, brand equity, and assortment breadth (e.g. Ailawadi et al. 2010; Singh et al 2004; Singh et al. 2006). All of these factors make Wal-Mart a formidable competitor, as evidenced by

it being the largest retailer globally, and thus encouraging customer switching at disproportionately higher rates and abnormally large drops in customer basket sizes (Ailawadi et al. 2010; Singh et al. 2004). For example, incumbent stores experience significant decreases in store visits after Wal-Mart's entry resulting in about 17% of volume or $250,000 in monthly revenue (Singh et al. 2004). As Singh et al. (2004, p.1) note: "The rapid growth of alternative retail formats has transformed not only the competitive structure of the industry, but also the way in which consumers shop. The biggest challenge to the industry is coming from none other than the world's largest retailer: Wal-Mart is cited by supermarket managers as their biggest concern in the coming years."

As this discussion demonstrates, retail incumbents find it very difficult to compete against new Wal-Marts. Their competitive positions are less effective at minimizing sales losses from new Wal-Marts than they are from minimizing sales losses from retailers of other formats. Retail incumbents will experience customer switching at disproportionately high rates resulting in steeper, more persistent sales drops when competing against new Wal-Marts as opposed to new specialty stores. Thus:

> *H2: The effect of emulating new upscale stores predicted in H1 is greater than that of emulating new Wal-Marts.*

3.3.2 SSO Moderation Hypotheses

Characteristics of the trade area may change the nature and/or strength of the SSO-performance relationship noted above. We focus on the market's retail density and how the physical distance between the incumbent and the new entrant impact this relationship, because they have been widely studied in past retail performance research (e.g. Gauri et al. 2009; Hoch et al. 1995; Reinartz and Kumar 1999).

3.3.2.1 Retail Density. Hotelling (1929) argues that attempts at differentiation are matched by competitors in dense retail markets (e.g. Gal-Or and Dukes 2003; Irmen and Thisse 1998). For example, if one firm lowers its prices, competitors will respond by slashing their prices and a price war will ensue. Subsequent research, however, has shown that this idea of minimum differentiation does not always hold in more realistic market settings (e.g. Eaton and Lipsey 1975; Economides 1993). For example, Rhee and Bell (2002) find that incumbent retailers are best served by differentiating in markets marked by three or more competitors. They substantiate this result by arguing that minimizing direct competition and overlap by creating a perception of uniqueness and exclusivity are keys to thriving in dense retail markets. Firms with relatively few direct competitors are less vulnerable to customer switching and price wars, and are generally less vulnerable to competitors. Despite the low switching costs inherent to competitive markets, consumers are not motivated to switch if incumbents are perceived as unique relative to the new entrant.

Shepard (1990) adds to this argument by demonstrating that in competitive environments the elasticity of demand is considerably higher for branded as opposed to non-branded retailers. According to her research, retailers that are perceived as dissimilar (e.g. branded retailers) in competitive environments are less susceptible to customer switching and can charge premium prices to achieve higher profit margins than competitors. Therefore, in dense retail markets, the elasticity of demand will be significantly lower for incumbent retailers that are dissimilar as opposed to similar to new entrants. It appears, then, that absent unique features (relative to the new entrant), incumbent retailers in competitive markets cannot maintain their customer bases and deter customers from switching to new entrants at high rates.

Thus, we anticipate that the proposed main effects will be weakened in dense retail markets and that the emulators will be particularly susceptible to new entrants in such markets. From previous research, it is clear that in dense markets superior performance is driven by (1) minimizing direct competition and substitutability and (2) capitalizing on low elasticity of demand to charge premium prices by emphasizing differentiation. Because differentiation is defined relative to the new entrant, incumbents operating in dense retail markets are best served by emphasizing premium services in the face of new Wal-Marts, but should emphasize more mainstream services when the new entrant is an upscale store. Recall from our earlier discussion that service offering dissimilarity is captured by negative SSO, while similarity is evidenced by positive SSO values. So in dense retail markets, incumbents with lower SSO scores will suffer significantly smaller sales losses from new entrants than those with higher SSO values. This hypothesis is formally presented below:

> *H3: Retail density moderates the impact of SSO on retail performance. As the number of competitors increases, incumbents that are more unique relative to new entrants (i.e., lower SSO values) will outperform their peers after new competitor entry.*

3.3.2.2 Distance. The impact of location on performance has been widely studied in strategy literature. For example, Baum and Haveman's (1997) research into the Manhattan hotel industry indicates that hotels competing for the same clientele experience more intense competition than those where the degree of overlap is marginal. They add that a key determinant of overlap is distance between competitors. When distance is low, overlap and competitive intensity are high (and vice-versa). Thus, hotels can best minimize sales competition losses and maximize gains by emphasizing differentiation-based strategies. Creating a perception of uniqueness allows firms to serve unique niches and establish sizeable, loyal customer bases.

This argument has been supported by other strategy theorists as well. Consider Chung and Kalnins (2001), who also study spatial location effects in the hotel industry. Proximate retailers benefit from heightened demand and more efficient information acquisition than otherwise (Chung and Kalnins 2001). Key to their work is the finding that proximate competitors that are dissimilar outperform those that are similar. These authors believe that competitors must differentiate themselves along key dimensions to capture a unique and loyal share of the market. Failure to differentiate encourages consumers to be deal prone and ignore other evaluative criteria, encourages customer switching, and generally leads to under performance (Chung and Kalnins 2001).

Basically, the most successful retailers emphasize differentiation to minimize comparability and substitutability, decrease elasticity of demand, and ultimately increase the opportunity costs of switching when competing against proximate entrants. Importantly, we do not believe that the proposed main effect completely disappears when distance is considered but that it is attenuated such that the optimal SSO measure is lower than otherwise. Since differentiation is defined relative to the new entrant, incumbents can best minimize sales losses from proximate new discounters by emphasizing premium offerings, but should emphasize more mainstream and conventional services when the proximate entrant is an upscale retailer. Building from this we argue that differentiation-based incumbents will experience significantly smaller sales losses from close new entrants than emulators. This relationship is formally hypothesized as:

> *H4: Distance moderates the impact of SSO on retail performance. As geographic proximity increases, incumbents that are more unique relative to new entrants (i.e., lower SSO values) will outperform their peers after new competitor entry.*

3.4 DATA

Our research draws upon four sources to create a dataset consisting of fourteen variables, summarized in Table 3. The first of these sources is the Nielsen Homescan data set, which provides a complete purchase history for a panel of 2,086 households in three cities — Pittsburgh, PA; Cincinnati, OH; and Columbus, OH — between 2005 and 2008. This data set also provides demographic information (i.e. household size, household income, and household location) about the households in each of these three cities. The households averaged about 2.3 members, had a median household income of about $42,500, spent approximately $5,000 at retailers annually ($35.11 per trip), and shopped 2.74 times each week. We aggregate this customer level purchase information up to the store level to better understand how incumbents' competitive positions impact their sales losses from new entrants.

Second, we use Nielsen's TD Linx Channel database to gather important industry-level information about retail density, store name, and store location**.** Additionally, by combining the household location from the Homescan panel and the store location from TD Linx, we are able to calculate distances both from households to stores and from store to store. We then use trade publications like *Progressive Grocer, Grocery News*, and *Drugstore News* to obtain information about store openings and closings as well as additions, expansions, and deletions of services. Finally, we use information from the new entrants' corporate websites to distinguish between emulation and differentiation-based services. If a service was found in both the new entrant and the incumbent's store profiles, then it is classified as emulative, but those unique to incumbents are viewed as differentiation-based.

Table 3. Variables and Data Sources

Variable	Operationalization	Data Source
Zip Code	The zip code where the store operates	TD Linx Database
Store name	Store name	TD Linx Database
Size	The size of the household	Homescan Data
Income	The income of the household	Homescan Data
Distance	Distance between the experimental store and the new store opening in miles	TD Linx Database and Homescan Data
Density	The number of retail outlets located within 15 miles of the new store	TD Linx Database
SSO	A measure of the relative emphasis firms place on services aimed at emulation as opposed to differentiation	Trade Publications and Corporate Website
Upscale	Indicator variable that takes the value of 1 if the new store is an upscale grocer and -1 otherwise.	Trade Publications and Corporate Website
Drug	Indicator variable that takes the value of 1 if the incumbent is a drugstore and -1 otherwise.	Trade Publications and Corporate Website
Grocery	Indicator variable that takes the value of 1 if the incumbent is a grocery store and -1 otherwise.	Trade Publications and Corporate Website
Convenience	Indicator variable that takes the value of 1 if the incumbent is a convenience store and -1 otherwise.	Trade Publications and Corporate Website
Delta Experimental	Δ in sales between the quarter before and quarter after the opening for the experimental store	Homescan Data
Delta Control	Δ in sales between the quarter before and quarter after the opening for the control store	Homescan Data
Adjusted Sales	(Δ in sales between the quarter before and quarter after the opening for the experimental store) – (Δ in sales between the quarter before and quarter after the opening for corresponding control stores	Homescan Data

We identify store openings by searching trade publications, company websites, and our datasets. Next, we identify stores that are located in a geographic area that is close to the store opening using their geocodes. Our analysis defines impacted stores (incumbents) as those within fifteen miles of the new store opening and control stores as those within the given trade market but more than fifteen miles away from a new store. We use a fifteen mile radius to maintain consistency with Ailawadi et al. (2010). Table 4 identifies the new entrants of interest. After completing the search for new store openings, and then calculating the distance from the store opening to incumbent retailers, we were able to identify 6549 observations to include in our data set. These observations represent data at the individual store level for all stores within fifteen

miles of each store opening that is identified in Table 4. The list of potential stores for the data set is broad and was obtained from the TD Linx database.

Table 4. New Entrants

Store Type	Store Name	Location	Zip Code	Date
Mass Discounter	Wal-Mart	Cincinnati, OH Metropolis	45069	August 24, 2005
			45056	May 18, 2005
			45036	October 26, 2005
			45245	January 25, 2006
			45102	January 31, 2006
			45240	May 8, 2006
			45011	May 8, 2006
			45013	October 11, 2006
			45040	November 3, 2006
			45150	March 5, 2007
			45241	May 4, 2007
			45239	May 21, 2008
			45044	October 10, 2008
		Columbus, OH Metropolis	43110	January 3, 2005
			43113	May 25, 2005
			45601	May 25, 2005
			43040	March 21, 2006
			43056	October 8, 2006
			43123	January 12, 2007
			43220	January 12, 2007
			45005	April 11, 2007
			43016	Nov 10, 2008
		Pittsburgh, PA Metropolis	16001	January 4, 2005
			15904	January 7, 2005
			16066	March 28, 2007
			15401	February 29, 2008
			15065	March 3, 2008
Upscale	Giant Eagle Market District	Pittsburgh, PA Metropolis	15232	June 29, 2006
			15102	June 29, 2006
	Kroger Fresh Fare	Cincinnati, OH Metropolis	45236	November 19, 2008
	The Fresh Market	Cincinnati, OH Metropolis	45236	February 23, 2007
		Columbus, OH Metropolis	43220	January 25, 2005
	Trader Joe's	Pittsburgh, PA Metropolis	15206	October 2006
	Whole Foods	Columbus, OH Metropolis	43235	July 2006

3.5 METHODOLOGY

Like Ailawadi et al. (2010), we test our hypotheses using a naturally occurring quasi-experiment because our research goals are similar. As they note (p. 16), the effect of a new store opening is best conceptualized as "…the difference between 'before' and' 'after' for the experimental store [incumbent] minus the corresponding before-and-after difference for the control." In our research, experimental stores are incumbents in the trade areas of interest that are within fifteen miles of the new entrant, whereas controls are incumbents outside of this fifteen mile radius but still in the target market (e.g., Columbus).

3.5.1 Dependent Variable

To create our dependent variable, we consider three performance quarters: quarter one immediately precedes the new competitor's entrance, quarter two is when the competitor enters the market, and quarter three immediately follows the new entrant's arrival. In order to determine the "difference in differences" we 1) calculate the difference in experimental (incumbent stores within a fifteen mile radius of the new entrant) store sales between quarters one and three, 2) calculate the difference in corresponding control (incumbent stores in the trade area but outside of the fifteen mile radius) store sales between the same periods, and 3) subtract the value calculated in step two from that calculated in step one. We label this final value "adjusted sales" and use it as our dependent variable. Formally,

$$(1)\ Adjusted\ Sales_t = [Experimental\ Sales_{Q3} - Experimental\ \ Sales_{Q1}] - [Control\ Sales_{Q3} - Control\ Sales_{Q1}]$$

Additionally, because firms add and/or delete services on an ongoing basis, we recalculate SSO at the beginning of each quarter of our dataset since our dependent variable is based on a quarterly measure. Thus, SSO provides a snapshot of a retailer's competitive position

at a given time. As noted earlier, strategic service orientation scores range from -1 to 1, and it has a mean of -.057 and a median value of -.122 (For additional statistics refer to Table 5.)

Table 5. Simple Statistics and Correlation Matrix[3]

Variable	Mean	Std. Deviation	Size	Income	Upscale	Distance	Density	SSO	SSO* Upscale	SSO* Distance	SSO* Density
Size	2.286	.978	1	.380	-.074	-.041	-.024	.051	.020	-.022	-.024
Income	19.35	4.750		1	-.089	-.068	-.007	.015	.067	.010	-.039
Upscale	-.158	.988			1	-.062	-.095	-.746	-.302	.036	.114
Distance	9.132	3.87				1	.072	.051	.041	-.042	-.049
Density	44..8	16.43					1	.153	.124	-.050	-.257
SSO	-0.06	.632						1	.089	-.038	-.068
SSO* Upscale	-.456	.441							1	-.065	-.083
SSO* Distance	.124	2.449								1	.090
SSO* Density	1.595	10.560									1

[3] We mean centered four continuous variables—household size, household income, distance, density, orientation—to address collinearity issues. The fifth continuous variable, SSO, was not mean centered.

Our dataset is comprised of a relatively heterogeneous sample of incumbent stores. Although all of the incumbents have multiple locations and are thus viewed as "big players," they have varying levels of resources. For example, some stores in our sample are concentrated in certain regions while others are multinationals. Similarly, some of the incumbents studied are franchises and others are corporate-owned. Finally, our research includes incumbents of various formats -- convenience, upscale, mass discounters, warehouse clubs, grocery, and drug stores. Such heterogeneity is important because it provides a robust test of our results. In addition, Wal-Mart and Whole Foods serve as both incumbents and new entrants in some markets.

3.5.2 Control and Independent Variables

To properly assess the effects of our focal variables we include three independent variables. We also include two additional controls, controls which have been shown in past research to be important determinants of retail performance. First, we include two controls that capture the mean values of household size and income for shoppers at a particular outlet in the time period of interest. These measures are included because they have been found to be important determinants of retail success (e.g. Bell et al. 1998; Bell and Lattin 1998), but are not our primary focus.

Our research also considers the effects of three independent variables. The first independent variable of interest is retail density. The importance of accounting for the density in a given trade area has been made clear by Hotelling (1929) and others (e.g. Economides 1993; Irmen and Thisse 1998). The second independent variable considers the impact of distance between the incumbent and new entrant. Here again, distance between competitors has been shown to be an important determinant of retail performance (e.g. Baum and Haveman's 1997; Chung and Kalnins 2001). The third and final independent of interest, the "upscale" indicator,

allows us to capture the differential effects when the new entrant is an upscale store as opposed to a discounter. Table 6 summarizes the expected effects of the controls, independent variables, and the moderators on the dependent performance measure.

Table 6. Determinants of Incumbent Performance: Hypotheses

Controls	**Vulnerability to New Wal-Marts**	**Vulnerability to New Upscale Stores**
Household Size	?	?
Household Income	?	?
Independent Variables		
Density	+	+
Distance	?	?
Upscale	N.A.	N.A.
SSO	Retail incumbents that have more similar service offerings to new entrants (i.e., higher SSO values) will outperform their peers after new competitor entry.	The effect of emulating new upscale stores predicted in H1a is greater than that of emulating new Wal-Marts.
Moderators		
SSO*Density	Retail density moderates the impact of SSO on retail performance. As the number of competitors increases, incumbents that are more unique relative to new entrants (i.e., lower SSO values) will outperform their peers after new competitor entry.	
SSO*Distance	Distance moderates the impact of SSO on retail performance. As geographic proximity increases, incumbents that are more unique relative to new entrants (i.e., lower SSO values) will outperform their peers after new competitor entry.	

3.6 ANALYSIS AND RESULTS

We run our analyses in three steps, adding variables in blocks, with the simpler models nested within the more complex ones. Our baseline model includes the two controls and the three independent variable main effects. The second model adds SSO to test the differential effectiveness of emulation and differentiation as competitive positions. The third model includes interactions between SSO and the independent variables. This final model is:

$$(2)\ Adjusted\ Sales_t = \beta_0 + \beta_1 Size + \beta_2\ Income + \beta_3 Distance + \beta_4 Density + \beta_5 Upscale + \beta_6 SSO + \beta_7 SSO * Distance + \beta_8 SSO * Density + \beta_9 SSO * Upscale + e$$

3.6.1 Model Analysis and Results

We estimated the models using the weighted least squares procedure in SAS to make sure the results were not driven by incumbents of certain formats. For instance, grocery incumbents accounted for 44.1% of observations and drugstores accounted for 47.6%, while only 8.3% of purchases in our sample were made at grocers. To control for this imbalance, we weighted each observation by the inverse of that format's share of observations.

The results from our analysis are summarized in Table 7. We report results for all three models in Table 7, but focus the following discussion on Model 3. Six variables are statistically significant ($p < .05$) in the final model (Model 3), while a seventh is marginally significant ($p < .10$). We organize our results by first presenting the results of our hypothesis tests, and then additional findings.

Table 7. Estimation Results

DV= Adjusted Sales			
	Model 1	**Model 2**	**Model 3**
Constant	.016^{+}	.025*	.079*
Household Size	.021*	.020*	.020*
Household Income	-.004^{+}	-.003	-.004^{+}
Density	.002*	.001*	.001
Distance	-.001	-.001	-.001
Upscale	-.016^{+}	.025^{+}	.050*
SSO		.081*	.105*
SSO*Density			-.005*
SSO*Distance			-.009*
SSO*Upscale			.081*

*significant at α=.05, $^{+}$significant at α=.10

3.6.1.1 Hypotheses 1 and 2. Our results show that a positive relationship exists between adjusted sales and SSO whereby emulation (as opposed to differentiation) minimizes sales losses from new entrants ($\hat{\beta} = .105$, $p < .001$). The results imply that incumbents perceived as unique relative to new entrants experience sales losses 1.7% larger than those that offer many of the

same services as the new competitor[4]. Interestingly, this effect holds as well when the new entrant is an upscale store ($\hat{\beta}$ = .186, p < .0001).[5] In this case, differentiators' sales losses are 3.41% larger than emulators. Not only does this result indicate that incumbents find it more difficult to compete against new Wal-Marts than upscale retailers, but that the value received from emulating new upscale stores is greater than that received from emulating new Wal-Marts. Thus, emulators outperformed differentiators regardless of the entrant type, providing support for both H1 and H2.

3.6.1.2 Hypotheses 3 and 4: Hypothesis 3 predicts that retail density of the trade area moderates the SSO-adjusted sales relationship. Our analysis finds evidence of this relationship ($\hat{\beta}$ = -.005 , p <.0001). In dense retail markets, incumbents that emphasize emulation (high SSO) average sales losses around $190 per $1,000 earned after new competitors enter their markets, while those that emphasize differentiation (high SSO) average sales increases around $30 per $1,000 earned. To fully understand the implications of these values we scaled them relative to the average quarterly sales for the stores in our sample -- $3,601,000. In dense retail markets, emulators average quarterly sales losses of $125,576.20 and differentiators experience quarterly sales increases of $19,827.82 after new competitor entry.

This result should not be misinterpreted to suggest that the main SSO-performance relationship completely disappears, but instead that it is attenuated in denser markets. In competitive trade areas, incumbents that provide services comparable to new entrants experience sales losses 1.4% greater than those that emphasize unique services. Therefore, our results support Hypothesis 3.

[4] Odds ratios were calculated by dividing standardized coefficients by average sales for the time period.
[5] To calculate the correct β value for SSO*Upscale, we added the β for SSO to that of the SSO*Upscale interaction.

Consistent with Hypothesis 4, our results show that distance moderates the relationship between SSO and adjusted sales such that differentiation becomes more important as proximity increases ($\hat{\beta}$ = -.009 , p >.05); the need to emphasize differentiation (low SSO) increases as distance between the incumbent and new entrant decreases. In the case of closely proximate competitors, differentiators averaged sales increases around $105.10 per $1,000 earned while emulators averaged sales losses around $122.90 per $1,000 earned. To assess the differential effects of emulation and differentiation, we again scaled these values relative to the average quarterly sales for incumbents' in our sample. Scaling these values indicates that in the case of proximate competitors, differentiators averaged quarterly sales gains of $69,463.46 while emulators averaged quarterly sales losses of $ 81,227.96 after new competitor entry. A summary of the findings of the hypotheses tests can be found in Table 8.

Table 8. Summary of Hypotheses Tests

Summary of Hypotheses	Supported?
H1: Retail incumbents that have more similar service offerings to new entrants (i.e., higher SSO values) will outperform their peers after new competitor entry.	Yes.
H2: The effect of emulating new upscale stores predicted in H1 is greater than that of emulating new Wal-Marts.	Yes.
H3: Retail density moderates the impact of SSO on retail performance. As the number of competitors increases, incumbents that are more unique relative to new entrants (i.e., lower SSO values) will outperform their peers after new competitor entry.	Yes.
H4: Distance moderates the impact of SSO on retail performance. As geographic proximity increases, incumbents that are more unique relative to new entrants (i.e., lower SSO values) will outperform their peers after new competitor entry.	Yes.

3.6.1.3 Additional Results: The control variables warrant some discussion. For example, the relationship between household size and adjusted sales is positive ($\hat{\beta}$ = .019 , p <.05) suggesting that susceptibility to new entrants decreases with household size. We also find that household income has a moderately negative relationship with adjusted sales ($\hat{\beta}$ = -.004 , p <.10). Firms that attract high income households suffer greater losses from new retailers than their peers. Thus, incumbent retailers in high income markets are particularly susceptible to new

entrants. Importantly, the upscale indicator variable is positively related to the outcome variable ($\hat{\beta}$ = .050, p <.05), whereby incumbents' sales losses from new upscale stores are 1.3% smaller than those from new entrants of other formats.

3.6.1.4 What if analysis: To expand the implications of our findings, we recalculated Equation 2 for each variable to further examine their impacts on adjusted sales. To conduct this "what if" analysis, the value of the upscale indicator was set to one and the values of the continuous variables (distance and density) were increased by one standard deviation above their grand means; the other variables were set to their grand means. Results from this analysis are summarized in Table 9. After we controlled for the control and independent variables, and the interaction effects the baseline adjusted sales was .04.

Table 9. Summary of "What If" Analysis

Variable (SD if Continuous)	DV= Adjusted Sales
Baseline: intercept only	.04
Controls	
Household Size	.021, .060
Household Income	.060, .021
Independents	
Upscale	.048, .098
Density	.024, .056
Distance	.044, .036
SSO	-.06, .02
Moderators	
SSO*Upscale	-.026, .107
SSO*Density	.171, -.090
SSO*Distance	.010, -.019

Note: These values show the range of adjusted sales when the specific factors are increased or decreased.

Household size exhibits the strongest effect among the control variables, increasing adjusted sales to .060 or a 48.4% increase from the baseline level. Comparatively, the associated change in household income results in a 47% change in adjusted sales from its baseline. Of the independent variables studied SSO has the largest effect on adjusted sales, increasing adjusted

sales 76% above its baseline while the upscale indicator results in a 66% jump from the baseline. The associated change in density is 40.7%, while that for distance is equivalent to a 9.6 % change. Importantly, adjusted sales increases from .04 to .107 when all predictors except SSO are held constant, resulting in a 164% change from the baseline.

When the other variables are controlled for SSO*upscale interaction has a larger effect on adjusted sales than the other interactions. Increasing the coefficient of this interaction to .216 produces a 435% change in adjusted sales from the baseline level. For the SSO*Density interaction adjusted sales changed about 323% from the baseline but about 147% for the corresponding change in the SSO*distance interaction.

3.6.2 Incumbent Format Analysis

In addition to our overall analysis, we also estimated Model 2 separately for incumbents of different formats. Specifically, we seek to understand if competitive positions are differentially effective for drug, mass discounter, and grocery incumbents. Per Table B1, the key relationships for drug store incumbents are largely consistent with the main analysis. As before, emulation is optimal when competing against new Wal-Marts and upscale stores ($\hat{\beta}$ = .076 , p<.05), though this effect is particularly strong when the entering store is an upscale grocer ($\hat{\beta}$ = .24 , p<.0001). And although the SSO * Density interaction is significant in the expected direction ($\hat{\beta}$ = -.004 , p<.0001), the SSO * Distance interaction is not ($\hat{\beta}$ = <-.001 , p=.867). For example, drugstores are best served by emulating new entrants when there are fewer than seventeen competitors in the market, but differentiation is a better option otherwise. In this study 11.2% of drugstore incumbents serve markets with fewer than seventeen competitors. Some of the effects reported in the primary analysis also hold when the incumbent is a grocer (refer to

Table B2). These results indicate that none of the competitive positions studied are uniformly effective for grocery incumbents.

Emulation-based grocers experience significantly smaller sales losses from new entrants as an aggregate than differentiators ($\hat{\beta}$ = .026 , p<.05). Although the SSO * Upscale interaction appears to be significant ($\hat{\beta}$ = -.023 , p<.05), this effect is practically nonexistent when the main effect is considered. So for incumbent grocers, emulation is optimal when competing against new Wal-Marts but none of the competitive orientations drives superior performance when the new competitor is an upscale retailer. Importantly, neither distance nor density moderates the SSO-performance relationship when the incumbent is a grocer.

The final incumbent format of interest is the mass discounter. Results from this analysis can be found in Table B3. As this table suggests, emulation and differentiation are equally ineffective in shielding discounters from Wal-Marts ($\hat{\beta}$ = .003 , *ns*-). In contrast to the primary analysis, mass discounters can defend against new upscale entrants by emphasizing differentiation over emulation ($\hat{\beta}$ = -.013 , p<.05). Thus, discount incumbents are best served by differentiating when the new entrant is an upscale retailer but cannot leverage either competitive position studied to minimize the effects of new discounters.

3.6.3 Robustness Check

In line with Mizik and Jacobson (2003), we tested an alternative specification of SSO. Of particular interest to us is understanding if our results hold when the emulation-differentiation differential is captured as a percentage. We operationalized SSO as percent emulation, by subtracting the number of differentiation-based services from the total number of services and dividing this value by the total number of services. These results (Appendix C Table C1) are largely consistent with those presented. For instance, in both cases we find support of the main

effect of SSO and find that an emulation-based position best minimizes incumbents' sales losses from new entrants—new Wal-Marts and new upscale stores. And like the main analysis, this robustness check suggests that retail density and distance attenuate the main effect of SSO; the need to emphasize differentiation over emulation increases with retail density and distance between the competitors. We, however, believe the results presented are stronger and more reliable because the way we operationalize SSO is rooted in Mizik and Jacobson (2003).

3.7 DISCUSSION

Retail performance is becoming increasingly competitive. Not only are retailers facing increasing pressures from retail chains and big box stores, but they are also facing increasing disintermediation. These factors have forced many retailers into bankruptcy and made it difficult for many others to remain profitable. Taken together, the results from our research provide important theoretical insights into how retail advantages are created and sustained. Through our research we demonstrate that retail advantage is driven by an understanding of how one's competitive position vis-à-vis a new entrant's impacts their ability to compete. Failure to recognize the risks associated with competing against different types of new entrants not only exposes incumbents to extraordinary risks, but exacerbates sales losses as well. Importantly, the value of one's competitive position depends on retail density.

In addition, retail incumbents must recognize when their competitive positions are insufficient and in themselves cannot insulate them from new retailers. In such cases incumbents must emphasize low pricing, assortment quality, customer service initiatives, cleanliness, shopping environment, food services, and other programs that have been proven through our others' research (e.g. Ailawadi et al. 2010; Arnold et al. 1983) to support retail advantages.

Managing this dynamic not only leads to investment efficiencies, but results in more productive resource deployment, superior performance, and competitive advantage.

3.7.1 Managerial Implications

Using SSO as a proxy for firm competitive position, we study the differential effectiveness of emulation and differentiation. Of particular interest to us is determining which competitive position minimizes incumbents' sales losses from new entrants. We show that an emulation-based position is superior to differentiation when competing against new entrants; failure to match the entrant's offering highlights deficiencies in the incumbent's strategy and ultimately encourages consumer switching at a high rate.

The SSO-performance relationship is amplified when the new entrant is a Wal-Mart. We find that the effect of emulating new upscale stores tends to be stronger than the value received from emulating new Wal-Marts. This result is interesting in that emulating an upscale grocer may mean having different services than emulating Wal-Mart. We are not suggesting that firms invest in an entirely new set of services each time a competitor opens, but that incumbents highlight particular services when a competitor of a certain type arrives. For example, if a new Whole Foods is opening, an existing store could feature its demonstration stations in their marketing activities to emphasize the quality of their food.

Although our results show that emulation is superior to differentiation in an absolute sense, the importance of differentiation increases with competitive intensity. This result implies that the need to stand out overtakes the power of being a first-mover in an area. We specifically find that the SSO-performance relationship flips in favor of differentiation when there are at least

twenty-one competitors in a trade area[6]. Thus, retailers should assess the competitive nature of trading areas before deciding how to approach a new competitive threat. In the same sense, retail incumbents must understand how distance from the new entrant impacts their ability to compete. Competitors within twelve miles of the new entrant should emphasize emulation, but those outside of this radius are best served by operating unique competitive positions.

We also estimate models to understand how the competitive positions work across different retail formats. Such a micro-level approach is particularly important because it allows us to provide retail managers with more specific strategic direction than otherwise. These analyses make clear that vulnerability to new entrants is not uniform but instead depends on characteristics of the incumbent and characteristics of the new entrant. Emulating is optimal for drug incumbents regardless of the new entrant (the new entrant can be a Wal-Mart or upscale retailer). And although emulation best minimizes grocers' sales losses from new Wal-Marts, differentiation is important when the new entrant is an upscale store. Finally, differentiation and emulation are equally ineffective at insulating discounters from new Wal-Marts while these incumbents should emphasize differentiation in the face of new upscale stores.

In addition, our research offers a strong test of the differential effectiveness of the competitive positions identified by Porter (1980, 1998). Our predecessors like Ailawadi et al. (2010) study the marketing mix as an aggregate but our research strictly focuses on service offerings. They also look at strategic reaction, while we seek to understand how incumbents' existing strategies impact sales losses. Thus, though firms may be able to react to new incumbents, its existing strategy may also be important. For example, it is unreasonable to expect that Whole Foods will reposition itself as a value retailer once a new Wal-Mart arrives.

[6] In our sample 6036 of the 6,549 or 92% observations were in markets with at least twenty-one competitors in their markets.

Also, we study entry by new upscale stores, which no other researcher has done. Adding this dimension allows us to offer a more comprehensive explanation of retail competition than our predecessors. Arguably our most important contribution is our finding that incumbents and new entrants' formats impact one's ability to compete and the way one should compete. An appreciation of this dynamic is needed to remain viable in an increasingly brutal retail environment.

4.0 CONCLUSION

My dissertation extends the literature on retail competition by explaining how retail advantage is built (Essay I) and how service overlap impacts an incumbent's ability to withstand competitive threats from new entrants (Essay II). My first essay provides retail managers with novel and actionable insights by explaining the consequences of their resource deployment decisions and explicating how sustained retail advantage is built. I identify the twelve sources of retail advantage and communicate the need to understand the differential importance of capabilities. Most importantly, I find that sustained retail advantage is driven by deploying systems of interrelated capabilities, rather than capabilities that do not reinforce one another. Not only do I identify four fundamental systems of interrelated capabilities but I explain how they work.

Despite its contributions, this paper leaves many questions unanswered—questions that can be answered through additional empirical and conceptual research. Empirically, research is needed to test and validate the propositions presented in this paper while conceptual research is needed to identify the sources of competitive advantage in other industries. For instance, what drives superior performance in business-to-business and online contexts? How are these drivers similar to (different from) those in the retail industry? How can firms integrate competitive

drivers across these contexts to maximize efficiency and performance? Answering these questions is important because many firms operate across various business contexts.

Although I identify basic retail systems, additional work is needed to fully understand how systems (rather than individual capabilities) promote sustained competitive advantage. This can be done by expanding my sample to gain a better understanding of retail leaders' best practices. In addition, research must identify higher order retail systems to explain how primary capabilities interact with one another. This research should also answer the following questions: are the primary capabilities equally important, should the emphasis placed on primary capabilities change with market conditions, and does a certain primary capability underlie all firm activities and serve as the core of firm success?

Finally, further examination of the processes underlying competitive advantage is needed. Through my research I learned that the collection of resources across firms is relatively homogeneous, but competitive differentiation is most often achieved by the ways firms manage and deploy these resources. It appears that in many cases processes drive sustained competitive advantage. Research is therefore needed to identify and understand the processes firms use to convert their resources into sources of sustained competitive advantage. For example, firms may be most successful by focusing on one or two systems instead of all of them. Even still, capabilities in systems may deserve differing degrees of weight given market conditions; managing systems may require that firms periodically reassess the component capabilities and the value assigned to each of these components. Again, I believe these processes may differ across business contexts.

My second essay demonstrates that incumbent retailers can leverage their service offerings in the form of a competitive position--emulation or differentiation--to minimize sales

losses from new entrants. Importantly, however, none of the competitive positions is uniformly superior. Instead, their effectiveness is largely a function of characteristics of the trade area and the incumbent's position vis-à-vis the new entrant's. Failure to appreciate this dynamic and operate the correct competitive position not only exacerbates sales losses due to new entrants, but leads to under performance and ultimately competitive disadvantage.

While this essay offers novel insights into the insulating role of strategic orientation on sales losses stemming from competitive entry, there remains much to be learned about retail competitors' interactions. I discuss five key limitations and opportunities for future research related to this paper. First, my sample only includes three cities facing fairly similar economic market conditions. Future research should study whether there are differences from our results when more diverse geographic and economic conditions are included. For instance, Lamey et al. (2007) have shown that business cycles in part explain the success of marketing programs. Thus, one would expect the SSO-performance relationship to change with fluctuations in business cycles as well.

Second, this paper looks at the ancillary services a retailer has in place at the time a new competitor opens. However, I do not study the dynamic nature of competition to see whether retailers alter their service offerings in response to the competitor opening and if so which response (emulation or differentiation) is the best. Even still, is it better for retail incumbents to maintain their strategic positions or change their positions in response to new entrants? It is also worth studying if SSO works similarly in the online context or if the importance of one's orientation less important in this channel? Understanding the role of competitive positioning in the online context is particularly important as consumers are increasingly patronizing online

shops (Zhou et al. 2007). Finally, work must be done to understand which product categories and departments are most (least) susceptible to competitors.

Third, in the tradition of extant research, my second essay studies how retailers can minimize sales losses from new entrants (e.g. Gielens et al. 2008, Ailawadi et al. 2010). However, none of this research studies retail competition from the new entrant's perspective. For example, do the most successful new entrants overlap with incumbents or are they perceived as unique relative to established competitors? Answering these questions will not only provide retailers insights as they expand, but a more comprehensive understanding of retail competition.

Fourth, I recognize that other factors influence consumers' likelihood of switching to new entrants (e.g. company and product characteristics, retail brand equity, macroeconomic conditions, and other contextual factors). So, additional research is needed to explain how these factions impact the SSO-adjusted sales relationship.

Finally, more research must be done to explain differences across retail formats. This research sets the stage for such research by demonstrating that differences do in fact exist, but more work must be done to flesh out these differences, explain why they exist, and fully explain how these differences impact retail competition. Is it that consumers view certain retail formats as substitutes for one another and others as complements? Or do these differences exist because consumers are motivated to shop at retail formats for different reasons (i.e. consumers may primarily make small basket purchases at drugstores but may make destination trips to mass discounters and grocery stores)?

Following my suggested course of research will not only improve theoretical understandings of competitive advantage, but provide managers with unparalleled insights as they develop resources. Providing retailers with such guidance is especially important as they

find it increasingly difficult to compete (Basker 2007, Jia 2006, Neumann 2005, and Neumann 2008). It is hoped that my dissertation serves as a basis for additional research into retail competition.

APPENDIX A

Appendix A includes the protocols used in this research. The first protocol was administered to retail managers, while the second was administered to home improvement managers. These protocols are highly similar, but at time reflect sector specific trends and qualities.

RETAIL PROTOCOL

Section 1

1. What factors not covered in our framework do you think impacts retailers' performance?
2. What makes apparel firms successful over time?
3. Do you think the key performance drivers are the same within the retail industry? For instance, do you think these drivers are the same between apparel and home improvement retailers? Please explain.

4. In your opinion, is your firm the industry leader in any of the areas identified in question 5? Please explain.

5. Does your firm excel in all of the areas identified in question 5?
    a. If not, which functions does your firm perform extremely well (extremely poorly)?
6. Have some capabilities transitioned from being firm-specific to being industry-standards? Please explain.
7. Thus far we (and other authors) have assumed that a firm's resources immediately impact its performance. Is it that the impact of some of these capabilities is not obvious on a balance sheet or there's a lagged effect associated with some of these investments?
8. Although retail firms have heavily invested in IT skills, they continue to dedicate a bulk of resources to this capability. Comparatively, our research indicates that the other capabilities have not received such consistently large amounts of investment. Why do you think this investment differential exists? In your opinion, does the value achieved from IT investments decay at a faster rate than that received from investments in other capabilities?
9. It appears that having superior IT skills is important because this resource can strengthen the performance impact of other resources. For instance, superior IT skills increase the impact distribution & logistics has on performance. It also seems that superior IT skills improve the customer service and property management initiatives.
    a. First, is our interpretation correct?
    b. Second, are there other resources in our framework with such a breadth of impact?
    c. What are other examples of interrelated capabilities?

Section 2

10. In your opinion which of the following is a more valuable strategy:
    a. heavily investing in key drivers of success and marginally investing in minor drivers
    b. heavily investing in minor drivers of success and marginally investing in key drivers

c. equally investing in minor and key components of success

11. Imagine there are 10 companies in the apparel industry competing in 10 areas of competitive advantage. Company X leads the industry in four of these areas, but is severely disadvantaged in the remaining 6. While Company Y does not lead the industry in any of these areas, but ranks among the top three firms in each of these areas. In your opinion, is it more sustainable to be company X or Company Y? Please substantiate your decision.
12. Wal-Mart is known for its cross-docking resource. Although many firms have attempted to copy this capability, they have largely been unable to receive comparable benefits because this resource is linked to intangible processes (i.e. employee know-how) that are not easily transferred between companies. Like Wal-Mart's cross-docking, are any of the performance drivers identified in our research linked to intangible processes that cannot be easily transferred between firms? If so, please explain.
    a. Is it that primary as opposed to secondary capabilities are linked to intangible processes?
13. It is generally believed that continuously investing in resources will increase its productivity. Is this assumption correct or do some resources have upper-limits where they cease to add value? For instance, is there but so much value you can extract from superior property management, IT skills, etc.? Please explain.
14. It appears that the performance drivers we identify generally focus on static as opposed to dynamic processes.
    a. Is this interpretation correct?
    b. In your opinion, is a dynamic mentality necessary to be competitive in the home improvement industry?

Section 3

15. Our research indicates that retailers do not operate an overall brand strategy, but instead manage brands at individual levels. Per this strategy, firms ignore the other facets of brand management and specifically ignore the need to uniquely position each brand and subsequently maximize profits associated with each.
    a. Is this interpretation correct?
    b. If so, which is a more important facet of brand management partnering with a lot of brands or maximizing value of a few brands?
    c. And which is a more important driver of firm performance—breadth of brands offered or depth of products offered in each brand?
16. Per our research, it appears that all retailers uniformly value high levels of customer service and as such consistently invest in this capability. Because of this it appears there's relatively little difference between apparel firms' customer service levels and thus this capability is not a competitive differentiator.
    a. Is this interpretation correct? Please explain.

b. If "yes" are there other such capabilities?

17. It appears that creating a novel shopping experience is only valuable to high-tier apparel firms like Macy's and Nordstrom's. Is this interpretation correct?
    a. If so, how can we reconcile this with the fact that providing a high-level of customer service is uniformly valued by firms of all quality levels as these capabilities appear to be interconnected?
18. Is it true that firms sometimes cede capabilities, where ceding is defined as a firm's decision to yield a competitive advantage in a specific area?
19. Our research indicates that market sensing and inter-functional partnerships receive relatively little investment. Is this interpretation correct? If so (if not) please explain.
20. The ability to manage mergers & acquisitions became evident during our review of the home improvement industry, but its importance was solidified during our study of the apparel industry. This capability appears important because it provides an efficient means of expansion, but also exposes firms to duplication and cannibalization risks. Thus, firms that can balance this reward-risk premium will outperform others.
    a. In your opinion is our interpretation of this capability correct?
21. One factor that our preliminary research ignored is a firm's ability to divest in unprofitable ventures, a capability we refer to as acquisition divestment. In your opinion is capability valuable?
    a. In particular is superior acquisition divestment an important performance driver?
    b. And if so, can this driver lead to a sustained competitive advantage?
22. Is there a market identification component of market sensing? Specifically, is JCPenney (Nordstrom's) better able to identify the needs of middle-class (upper-class) as opposed to upper-class (middle-class) customers?
23. Are there examples where market factors have shifted emphasis from one capability to another? Please explain.

HOME IMPROVEMENT PROTOCOL

Section1

1. What factors not covered in our framework do you think impacts retailers' performance?
2. What makes home improvement firms successful over time?
3. Do you think the key performance drivers are the same across industries? Please explain.
4. Do you think the key performance drivers are the same within the retail industry? For instance, do you think these drivers are the same between apparel and home improvement retailers? Please explain.
5. What do you see as the key performance drivers in the home improvement industry?
6. In your opinion, is your firm the industry leader in any of the areas identified in question 3? Please explain.
7. Does your firm excel in all of the areas identified in question 3?
    a. If not, which functions does your firm perform extremely well (extremely poorly)?
8. Have some capabilities transitioned from being firm-specific to being industry-standards? Please explain.
9. Thus far we (and other authors) have assumed that a firm's resources immediately impact its performance. Is it that the impact of some of these capabilities is not obvious on a balance sheet or there's a lagged effect associated with some of these investments?
10. Although retail firms have heavily invested in IT skills, they continue to dedicate a bulk of resources to this capability. Comparatively, our research indicates that the other capabilities have not received such consistently large amounts of investment. Why do you think this investment differential exists? In your opinion, does the value achieved from IT investments decay at a faster rate than that received from investments in other capabilities?
    a. Are there other capabilities where such a decay effect exists?
11. It appears that having superior IT skills is important because this resource can strengthen the performance impact of other resources. For instance, superior IT skills increase the impact distribution & logistics has on performance. It also seems that superior IT skills improve the customer service and property management initiatives.
    a. First, is our interpretation correct?
    b. Second, are there other resources in our framework with such a breadth of impact?

Section2

12. In your opinion which of the following is a more valuable strategy:
    a. heavily investing in key drivers of success and marginally investing in minor drivers
    b. heavily investing in minor drivers of success and marginally investing in key drivers

c. equally investing in minor and key components of success

Please explain the logic behind your choice.

13. Imagine there are 10 companies in the Home Improvement Industry competing on 10 distinct sources of competitive advantage. Company X leads the industry in four of these areas, but is severely disadvantaged in the remaining 6. While Company Y does not lead the industry in any of these areas, but ranks among the top three firms in each of these areas. In your opinion, is it more sustainable to be company X or Company Y. Please substantiate your decision.
14. Wal-Mart is known for its cross-docking resource. Although many firms have attempted to copy this capability, they have largely been unable to receive comparable benefits because this resource is linked to intangible processes (i.e. employee know-how) that are not easily transferred between companies. Like Wal-Mart's cross-docking, are any of the performance drivers identified in our research linked to intangible processes that cannot be easily transferred between firms? If so, please explain.
    a. Is it that primary as opposed to secondary capabilities are linked to intangible processes?
15. It is generally believed that continuously investing in resources will increase their productivity. Is this assumption correct or do some resources have upper-limits where they cease to add value? For instance, is there but so much value you can extract from superior property management, IT skills, etc.? Please explain.
16. It appears that the performance drivers we identify—IT skills, property management, customer service, market sensing, novel shopping experience, buying ability, international emphasis, inter—functional partnerships, price-value relationship, brand management, distribution & logistics—generally focus on static as opposed to dynamic processes.
    a. Is this interpretation correct?
    b. In your opinion, is a dynamic mentality necessary to be competitive in the home improvement industry?

Section 3

17. Our research indicates that retailers do not operate an overall brand strategy, but instead manage brands at individual levels. Per this strategy, firms ignore the other facets of brand management and specifically ignore the need to uniquely position each brand and subsequently maximize profits associated with each.
    a. Is this interpretation correct?
    a. If so, which is a more important facet of brand management partnering with a lot of brands or maximizing value of a few brands?
    b. And which is a more important driver of firm performance—breadth of brands offered or depth of products offered in each brand?

18. Per our research, it appears that all retailers uniformly value high levels of customer service and as such consistently invest in this capability. Because of this it appears there's relatively little difference between apparel firms' customer service levels and thus this capability is not a competitive differentiator.
    a. Is this interpretation correct? Please explain.
    b. If "yes" are there other such capabilities?
19. While customer service (a component of customer-centric strategies) is of primary importance to firms, other customer-centric initiatives like balancing the price-value relationship and incorporating a novel shopping experience are minimally important. Instead factors like efficient distribution & logistics, superior IT skills, and efficiency as a whole appear to be more important performance drivers. With that said have researchers failed to articulate the interconnectedness of customer-centric strategies and efficiency-oriented strategies, are practitioners incorrectly applying the market orientation strategy, or have practitioners adopted alternate strategies?
20. Is it true that firms sometimes cede capabilities, where ceding is defined as a firm's decision to yield a competitive advantage in a specific area?
    a. In your opinion must firms recognize areas where they are competitively disadvantaged and subsequently cede advantage in this area in order to remain competitive at an aggregate level?
    b. In your opinion, can firms remain competitive after ceding key performance drivers?
    c. In your opinion, can firms remain competitive after ceding minor performance drivers?
21. Have Lowe's & HD's investment in supply chain & logistics initiatives increased over the past few years? Or is this perception a function of the availability of information?
    a. IF so, how have external market factors impacted the shift towards this capability? More specifically, this capability did not appear to be a primary driver of firm performance in the beginning of the century though it now appears to be of primary of importance.
    b. Are there other examples where market factors have shifted emphasis from one capability to another?
22. Our research indicates that market sensing and inter-functional partnerships receive relatively little investment. Is this interpretation correct? If so (if not) please explain.
23. One factor that our preliminary research ignored is a firm's ability to divest in unprofitable ventures, a capability we refer to as acquisition divestment. In your opinion is capability valuable?
    a. In particular is superior acquisition divestment an important performance driver?
    b. And if so, can this driver lead to a sustained competitive advantage?

24. Is there a market identification component of market sensing? Specifically, is HD (Lowe's) better able to identify the needs of DIY (DIFM) as opposed to DIFM (DIY) customers?
25. DIFM customers tend to be older and have higher salaries, while DIY customers tend to be younger and from poorer backgrounds. Based on this it's expected that as DIY customers transition to being older and become more ingrained in their careers they'll shift to being DIFM customers and subsequently switch to Lowe's. Is such a supposition realistic? More specifically, will these DIY customers remain loyal to Home Depot or not?
    a. In your opinion are strategies targeted at DIFM or DIY segments sustainable?
26. Research suggests that neither Lowe's nor HD is directly involved in innovative practices. Is this interpretation correct?
    a. If yes, is such a hands-off approach sustainable?
    b. If Sears, the 3rd ranked home improvement firm, aggressively invests in innovation do you think this will threaten HD/Lowe's stronghold? Please explain.

APPENDIX B

Appendix B includes tables that summarize the results of the supplementary analyses and correlation matrices for different retail formats. To note, we mean centered four continuous variables—household size, household income, distance, density, orientation—to address collinearity issues. The fifth continuous variable, SSO, was not mean centered.

TABLE B1

EMPIRICAL ANALYSIS FOR DRUGSTORES

DV=Adjusted Sales for Drugstores			
	Model 1	**Model 2**	**Model 3**
Constant	-.015^{+}	-.010	.082*
Household Size	.013	.012	.012
Household Income	-.007*	-.006*	-.007*
Density	.001*	.001*	<.001
Distance	.004*	.004*	.004
Upscale	-.002	.013	.059*
SSO		.032	.076*
SSO*Density			-.004*
SSO*Distance			-.006
SSO*Upscale			.164*

*significant at α=.05, $^{+}$significant at α=.10

TABLE B2

SIMPLE STATISTICS AND CORRELATION MATRIX-DRUGSTORE INCUMBENTS

Variable	Mean	Std. Deviation	Size	Income	Upscale	Distance	Density	SSO	SSO* Upscale	SSO* Distance	SSO* Density
Size	2.162	1.080	1	.375	-.053	.082	-.030	.039	-.014	.039	.039
Income	18.29	5.539		1	-.890	-.059	.015	.070	-.048	.070	.070
Upscale	-.104	.995		-	1	-.081	-.139	-.890	-.071	-.890	-.890
Distance	9.138	3.945				1	.065	.082	.058	.082	.082
Density	.187	17.397					1	.211	.195	.211	.211
SSO	.054	.780						1	.140	1	1
SSO* Upscale	-.696	.356							1	.140	.140
SSO* Distance	.700	.137								1	1
SSO* Density	2.406	.832									1

TABLE B3

EMPIRICAL ANALYSIS FOR GROCERS

DV=Adjusted Sales for Grocers			
	Model 1	**Model 2**	**Model 3**
Constant	-.025*	-.021*	-.031*
Household Size	.010*	.010*	.009*
Household Income	-.001	-.001	-.001
Density	.008*	.007	.001*
Distance	.003*	.003*	.003*
Upscale	-.001	.013*	.009
SSO		.031*	.026*
SSO*Density			<-.001
SSO*Distance			-.002
SSO*Upscale			-.023*

*significant at α=.05, $^{+}$significant at α=.10

TABLE B4

SIMPLE STATISTICS AND CORRELATION MATRIX-GROCER INCUMBENTS

Variable	Mean	Std. Deviation	Size	Income	Upscale	Distance	Density	SSO	SSO* Upscale	SSO* Distance	SSO* Density
Size	2.349	.063	1	.316	-.080	-.028	-.045	.121	-.049	.121	.121
Income	20.07	.712		1	-.060	-.070	-.063	-.033	.009	-.033	-.033
Upscale	-.183	-.183		-	1	-.048	.004	-.576	-.623	-.576	-.576
Distance	9.167	3.78				1	.089	.001	.034	.001	.001
Density	44.87	15.577					1	.095	.088	.095	.095
SSO	-.212	.383						1	.527	1	1
SSO* Upscale	-.178	.400							1	.527	.527
SSO* Distance	-2.76	4.981								1	1
SSO* Density	-9.49	7.114									1

TABLE B5

EMPIRICAL ANALYSIS FOR MASS DISCOUNTERS

DV=Adjusted Sales for Mass Discounters			
	Model 1	**Model 2**	**Model 3**
Constant	.011*	.012*	.006*
Household Size	.001	.001	.001
Household Income	.001^{+}	.001^{+}	.001^{+}
Density	<.001	<.001	<.001
Distance	-.002*	-.002*	-.002*
Upscale	-.003*	<-.001	-.004
SSO		.005	.003
SSO*Density			-.003^{+}
SSO*Distance			-.002*
SSO*Upscale			-.013*

*significant at α=.05, $^{+}$significant at α=.10

TABLE B6

SIMPLE STATISTICS AND CORRELATION MATRIX- MASS DISCOUNT INCUMBENTS

Variable	Mean	Std. Deviation	Size	Income	Upscale	Distance	Density	SSO	SSO* Upscale	SSO* Distance	SSO* Density
Size	2.656	.914	1	.506	-.977	-.092	.386	.075	-.005	.075	.075
Income	21.76	2.949		1	-.089	-.160	-.082	-.059	-.096	-.059	-.059
Upscale	-.341	.941		-	1	-.033	-.001	-.977	-.456	-.977	-.977
Distance	8.908	3.906				1	.043	.052.	.097	.052	.052
Density	46.45	4.929					1	.004	<-.001	.004	.004
SSO	.134	.563						1	.636	1	1
SSO* Upscale	-.563	.135							1	.636	.636
SSO* Distance	1.742	7.332								1	1
SSO* Density	5.984	5.194									1

APPENDIX C

Appendix C includes tables that contain the results of the robustness checks using an alternative operationalization of SSO.

TABLE C1

SENSITIVITY ANALYSIS PERCENT EMULATION

DV= Adjusted Sales			
	Model 1	**Model 2**	**Model 3**
Constant	.016*	-.056*	-.026
Household Size	.021*	.020*	.020*
Household Income	-.004^{+}	-.003	-.004^{+}
Density	.002*	.002*	.006*
Distance	-.001	-.001	.007
Upscale	-.016*	.025	-.031
SSO		.161*	.692*
SSO*Density			-.011*
SSO*Distance			-.017*
SSO*Upscale			-.011*

*significant at α=.05, $^{+}$significant at α=.10

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