Avenue Living

Vertical Integration & Performance in Residential Real Estate

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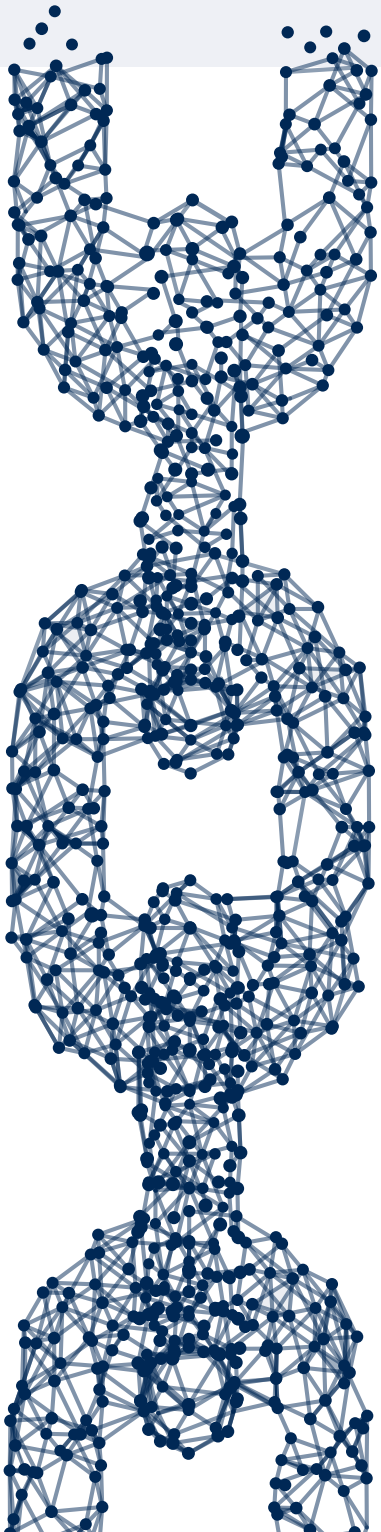
Introduction

An industry's value chain consists of all the activities required to bring a product or service to the end consumer (Porter, 1980). Vertical integration is a growth strategy whereby a firm engages in multiple stages of the value chain (Anderson & Weitz, 1986; Harrigan, 1983). Firms can engage in a variety of vertical integration strategies including upstream integration, downstream integration, or full integration (Porter, 1985). Upstream integration is when a firm participates in areas of the value chain that are further from the end consumer, such as a wholesaler expanding into manufacturing (Swanson & Wilson, 2023). Downstream integration occurs when a firm is involved in areas of the value chain that are closer to the end consumer, such as a wholesaler expanding into retailing (Swanson & Wilson, 2023). Fully integrated firms participate in upstream and downstream value chain activities (Swanson & Wilson, 2023). All types of vertical integration can be highly rewarding. Accordingly, large organizations continue to seek more control over their value chains, becoming more vertically integrated (Zhang, 2013).



Vertical Integration Benefits

The benefits of vertical integration are well documented (Buzzell, 1983; D'aveni & Ravenscraft, 1994; Porter, 1980; Wilson, 2020). In Capon et al.'s (1990) meta-analysis of corporate strategy effectiveness, vertical integration was found to have a direct and positive effect on various measures of firm performance (e.g., financial and non-financial). Past research suggests that the performance benefits of vertical integration are due to increased efficiency, economies of scale, barriers to entry, innovation, and customer orientation. Porter (1980) argues that companies operating in industries that commonly face supply shortages or input disruptions can improve efficiency and reduce costs caused by delays through upstream integration. Expanding into new areas of the value chain has associated costs. However, economies of scale are likely to be realized over time, reducing the total costs to vertically integrated companies, increasing their performance (Anderson & Weitz, 1986; Lumsden, 2011). According to Porter (1985), increasing barriers to entry in an industry can insulate the competitive positions of existing companies. As companies become larger and engage in vertical integration, new entrant requirements (e.g., capital, operational efficiency, etc.) make it difficult to compete with existing firms (Porter, 1985). Strategy is a process, while innovation is a way of thinking about and executing corporate strategy with the intent to create further value for the firm and its customers (Dobni & Sand, 2018; Dobni et al., 2022). As such, innovation is a natural outcome of vertical integration, as a company's broadened engagement in the value chain brings about new ideas and novel strategy execution (Buzzell, 1983). Vertical integration compels companies to think about how the areas of the value chain impact the consumer, promoting customer orientation (Wilson, 2020). Customer orientation is a firm-level commitment to serving the latent needs and expressed wants of the target market (Narver & Slater, 1990). Customer orientation has been repeatedly shown to enhance financial and non-financial performance (Cano et al., 2004; Grissemann et al., 2013; Shoham et al., 2005).

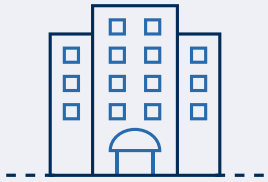
Although vertical integration has enhanced competitiveness and firm performance, it should not be regarded as a "one size fits all" strategy. In fact, excessive vertical integration has caused numerous corporate failures (Buzzell, 1983). Accordingly, vertical integration outcomes are likely to depend on the industry and individual companies. Despite the large body of vertical integration research, few studies have examined its relevance in real estate.

Vertical Integration in Real Estate

In real estate, most companies address one particular aspect of an asset class (e.g., raising capital to acquire properties) (Worcester, 2022). According to Lind (2017), there is a "tendency towards less vertical integration in the construction and real estate sector, but at the same time, there is a group of successful private companies that are vertically integrated" (p. 195). Vertically integrated real estate companies may be involved in acquisitions, lending, construction, property management, maintenance, sales, etc. Lind (2017) and Worcester (2022) describe expertise, deal success, and economies of scale as the core benefits of vertical integration in real estate. Expertise and economies of scale are common benefits of vertical integration (Anderson & Weitz, 1986; Lumsden, 2011). However, deal success is more specific to real estate vertical integration. According to Worcester (2022), vertically integrated real estate companies are better positioned to make more, and better, deals than their non-vertically integrated counterparts. For example, engagement in lending (upstream integration) reduces borrowing costs, construction (downstream integration) reduces capital expenditures, property management (downstream integration) reduces operational costs, and sales (downstream integration) reduces transaction costs. Positive non-financial outcomes are also likely for vertically integrated real estate enterprises. According to Dixon (1993), vertically integrated property management systems reduce administrative time, allowing for more "hands-on" management that enhances services and outcomes for tenants. Grissemann et al.'s (2013) accommodation industry research supported the link between vertical integration and non-financial outcomes, as they showed it improved customer retention and organizational reputation.

Despite these well-articulated benefits of vertical integration, few studies have examined the effects of vertical integration in real estate, much less the non-financial outcomes in property management. In response to this lack of research, this paper explores tenant perceptions of property managers' downstream vertical integration (involvement in areas of the value chain that are closer to the customer) and effectiveness (non-financial measures of performance including tenant loyalty, pride, commitment, etc.). Based on the limited existing literature that supports the value of vertical integration to financial and non-financial performance, the following hypothesis was created.

VERTICAL INTEGRATION AND PROPERTY MANAGER EFFECTIVENESS ARE POSITIVELY CORRELATED AFTER CONTROLLING FOR OTHER RELEVANT FACTORS.



Property Management Value Chain

Methods

The international online survey panel Prolific Academic was used to recruit participants for the survey. Prolific Academic is an established online survey platform to recruit participants and is commonly used for consumer, economics, and psychology research (Callan et al., 2017; Marreiros et al., 2017; Mosleh et al., 2021; Palan & Schitter, 2018). Prolific Academic's panel consists mostly of individuals from the United States (U.S.) and the United Kingdom (U.K.) (Mosleh et al., 2021). At the time of this study, there were over 10,000 individuals that identified as "living in a privately rented accommodation." This study's goal was to obtain a convenience sample of 1,000 individuals renting their accommodation in the U.S., the U.K., and Canada. Convenience sampling was justified as Coppock et al. (2018) and others have found "strong correspondence between sample average treatment effects estimated in nationally representative experiments and in replication studies conducted with convenience samples" (p. 21441). Participants were paid roughly the equivalent of $20 USD/hour to complete the five-minute questionnaire. Participants were asked a number of demographic questions including gender, age, income, education level, marital status, and percentage of income spent on rent as well as questions related to their property manager's level of vertical integration and effectiveness (Appendix 1). Downstream vertical integration was assessed by a single-item measure related to the property manager's department and business unit vertical integration for customer value creation. Single-item measures to assess management strategies have been shown to be valid, reliable, and correlated with multi-dimensional measures (Bergkvist and Rossiter, 2007; Leung and Xu, 2013; Wilson et al., 2023). Tenant assessment of property manager effectiveness was measured by five items including 1) loyalty toward the property manager, 2) trust in the property manager, 3) pride in rental accommodation, 4) commitment to paying rent on time, and 5) avoiding activities that negatively impact the property and other tenants. An unweighted average of these five items was used to create a property manager effectiveness score for additional analyses.

Results

Data collection was in the fall of 2022 and resulted in 1,251 usable responses from renters in the U.S. (n = 433), the U.K. (n = 718), and Canada (n = 100). Of the 1,252 responses, 533 were male, 689 were female, 24 were non-binary, and five did not specify. Individuals' ages ranged from 18 to 84 years old and incomes ranged from under $10,000 USD/year to over $150,000 USD/year. Just over half of the individuals (51.7%) spent over 30% of their gross income on rent. Education level was diverse with 17 (1.4%) not graduating high school, 153 (12.2%) holding only a high school diploma, 341 (27.3%) having some college education without completing a degree, 486 (38.8%) earning an undergraduate degree, 207 (16.5%) earning a graduate degree, and 47 (3.8%) earning a doctoral degree. Marital status was also diverse including individuals that were single (n = 684), married (n = 274), common law (n = 109), divorced (n = 56), separated (n = 21), widowed (n = 8), or preferred not to say (n = 99).

The major constructs (vertical integration and property manager effectiveness) and numeric control variables (age, income, education, and the percentage of income spent on rent) were included in a bivariate correlation analysis. Vertical integration and property manager effectiveness were positively correlated ($\beta = 0.278$, $p < 0.05$). Age was negatively correlated with education ($\beta = -0.056$, $p < 0.05$) and positively correlated with property manager effectiveness ($\beta = 0.356$, $p < 0.05$). Income was positively correlated with education ($\beta = 0.274$, $p < 0.05$) and negatively correlated with the percentage of income spent on rent ($\beta = -0.222$, $p < 0.05$). Education was negatively correlated with property manager effectiveness ($\beta = -0.110$, $p < 0.05$).

To further explore the relationship between vertical integration and property manager effectiveness, linear regression analyses were performed (Table 1). Similar to other management research, linear regression was utilized, as it provides an efficient way to examine the relationship between an outcome variable (dependent variable) and one or more predictor variables (independent variables). The results of the main effect model (Model 1), including vertical integration as the independent variable and property manager effectiveness as the dependent variable, showed that the relationship was positive and statistically significant ($\beta = 0.278$, $p < 0.05$, $R2 = 0.077$). The results of the second regression analysis (Model 2), which also included the numeric control variables (age, income, rent spend) and a continuous categorical variable (education) as independent variables, showed that the variance explained increased ($R2 = 0.208$). Education was coded as a continuous categorical variable ("less than high school" =1 to "doctoral degree" = 6) in order to perform linear regression.[1] With the inclusion of the control variables, vertical integration's positive and statistically significant effect ($\beta = 0.264$, $p < 0.05$) on property manager effectiveness was upheld.

[1]It is acceptable to use a continuous categorical variable such as education in regression because it can be treated as a numerical variable (Anderson, 1984). In this case, we assign "1" as "less than high school" to "6" as "doctoral degree." This allows the model to establish a meaningful relationship between the independent variable (education) and the dependent variable (property manager effectiveness). Additionally, assigning numerical values to categories allows the model to incorporate the ordinal nature of the data, which can provide insight into the effect of education level on the dependent variable.

TABLE 1: REGRESSION ANALYSES

	MODEL 1				MODEL 2			
INDEPENDENT VARIABLES	**B**	**se**	**β**	**t**	**B**	**se**	**β**	**t**
Vertical Integration	0.159*	0.054	0.278	10.223	0.151	0.014	0.264*	10.450
Age					0.185	0.014	0.342*	13.494
Income					-0.002	0.006	-0.008	-0.285
Education					-0.041	0.011	-0.096*	-3.642
Rent Spend					-0.012	0.007	-0.042	-1.629
(Constant)	2.986	0.016		55.438	2.633	0.098		26.982

* $p < 0.05$, N = 1,251, Dependent Variable = Property Manager Effectiveness, Linear Regression

Discussion

This study's results presented both intuitive and surprising results. The intuitive relationships observed in the bivariate correlation analysis were 1) age and education, 2) income and the percentage of income spent on rent, 3) education and income, and 4) vertical integration and property manager effectiveness. Given millennials are more educated than previous generations (Bialik & Fry, 2019), the negative correlation between age and education was not surprising. According to the Canadian Mortgage and Housing Corporation (2018), "housing is considered 'affordable' if it costs less than 30% of a household's before-tax income." The observed negative correlation between income and the percentage of income spent on rent was therefore anticipated, as one's income increases it makes living more affordable. What was surprising was the number of individuals that were living in "unaffordable" situations, as observed in the demographic results. This finding speaks to Wilson's (2021) work that affordability, not homeownership, should be the primary focus of the Canadian Mortgage and Housing Corporation and regulators. The notion that "education pays" was supported by the most recent U.S. Bureau of Labor Statistics (2021) data and the observed positive correlation between income and education. Given the touted benefits of vertical integration (Buzzell, 1983; Capon et al., 1990; D'aveni & Ravenscraft, 1994; Porter, 1980; Wilson, 2020), its correlation with property manager effectiveness was somewhat expected. More interestingly, the results of the regression analyses showed the relationship between vertical integration and property manager effectiveness was strong and did not change when controlling for age, income, education, and the percentage of income spent on rent. These results supported the study's hypothesis that vertical integration enhances property manager effectiveness. It suggests that among all types of renters, the degree of property manager vertical integration is directly related to tenant loyalty toward the property manager, trust in the property manager, pride in rental accommodation, commitment to paying rent on time, and the avoidance of activities that negatively impact the property and other tenants. More simply, vertically integrated real estate organizations have excellent tenants because they appreciate the value offered by the landlord/property manager. This finding aligns with Narver and Slater's (1990) philosophy that suggests customer value creation results in enhanced competitiveness and performance (Cano et al., 2004; Shoham et al., 2005).

This study is not without limitations, including 1) other strategies that may enhance property manager effectiveness, 2) the nature of the included measures, 3) the study's sample size and scope, 4) the data collection method, and 5) the cross-sectional nature of the data. Although vertical integration was found to be positively correlated with property manager effectiveness, it is recognized that other strategies and practices are also likely to enhance value for tenants (e.g., customer orientation, innovations, competitive pricing models, safety features, new amenities, etc.). While single-item measures are valid and reliable (Bergkvist and Rossiter, 2007; Leung and Xu, 2013; Wilson et al., 2023), vertical integration could be assessed with a multi-dimensional measure in future studies. Additionally, other financial and non-financial dependent variables could be included in future research. Given that Prolific Academic is an online platform, it is likely that respondents are younger and technologically savvy. Despite having responses from ages 18 to 84, the majority of respondents were under the age of 35. The skew of age is a limitation of the results and the generalizability of the findings. The study was conducted among renters in the U.S., the U.K., and Canada. Additional research should be undertaken to explore the benefits of vertical integration in other countries and regions of the world. Finally, this research was cross-sectional and long-term studies relating to vertical integration's value in real estate would be valuable.

Strategic Directives

The intention to create more value for customers and the firm is the reason why so many large organizations are engaging in vertical integration (Zhang, 2013). In this study, the results show that the benefits of vertical integration extend to residential real estate, such that renters are more trusting, loyal, committed, and desirable when they perceive their property manager as vertically integrated. Vertically integrated residential real estate companies have a distinct competitive advantage, better tenants. Great tenants translate into sustained real estate performance, financial and non-financial. It is recommended that residential real estate companies of significant size should actively pursue vertical integration because it engenders customer value and superior performance. There are several policy implications for regulators to consider. Given the many benefits of vertical integration, regulators could provide tax incentives for vertical integration investments and engage in public-private partnerships focused on increased value creation for renters. This study's most concerning finding (that many renters are in unaffordable housing situations), requires the immediate attention of regulators and greater investments in affordable housing.

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Appendix 1: Survey Questions

Please answer the following question about your current property manager's operations relative to other property managers (VERTICAL INTEGRATION).

1. The property manager's departments (e.g., maintenance, finance, customer service, etc.) are integrated.
   - o Strongly disagree
   - o Disagree
   - o Neither agree nor disagree
   - o Agree
   - o Strongly agree
   - o Prefer not to say

Please answer the following questions based on your experience and intentions (PROPERTY MANAGER EFFECTIVENESS).

1. I feel loyalty toward my property manager.
   - o Strongly disagree
   - o Disagree
   - o Neither agree nor disagree
   - o Agree
   - o Strongly agree
   - o Prefer not to say

2. I take pride in my rental accommodation.
   - o Strongly disagree
   - o Disagree
   - o Neither agree nor disagree
   - o Agree
   - o Strongly agree
   - o Prefer not to say

3. I am committed to paying my rent on time.
   - o Strongly disagree
   - o Disagree
   - o Neither agree nor disagree
   - o Agree
   - o Strongly agree
   - o Prefer not to say

4. I trust my property manager.
   - o Strongly disagree
   - o Disagree
   - o Neither agree nor disagree
   - o Agree
   - o Strongly agree
   - o Prefer not to say

5. I avoid engaging in activities that negatively impact the property and other tenants.
   - o Strongly disagree
   - o Disagree
   - o Neither agree nor disagree
   - o Agree
   - o Strongly agree
   - o Prefer not to say

Please answer the following demographic questions (DEMOGRAPHICS).

1. Please indicate the gender that you identify with.

   _____

2. What best describes your age?
   - o Under 18
   - o 18 – 24
   - o 25 – 34
   - o 34 – 44
   - o 45 – 54
   - o 55 – 64
   - o 65 – 74
   - o 75 – 84
   - o 85 or older
   - o Prefer not to say

3. What best describes your household income (USD)?
   - o Less than $10,000
   - o $10,000 - $19,999
   - o $20,000 - $29,999
   - o $30,000 - $39,999
   - o $40,000 - $49,999
   - o $50,000 - $59,999
   - o $60,000 - $69,999
   - o $70,000 - $79,999
   - o $80,000 - $89,999
   - o $90,000 - $99,999
   - o $100,000 - $149,999
   - o More than $150,000
   - o Prefer not to say

4. What best describes your education level?
   - o Less than high school
   - o High school graduate
   - o Some college
   - o Undergraduate (bachelor's) degree
   - o Graduate (master's) degree
   - o Doctoral degree (PhD, MD, etc.)
   - o Prefer not to say

5. What is your marital status?
   - o Married
   - o Widowed
   - o Divorced
   - o Separated
   - o Common law
   - o Single
   - o Other
   - o Prefer not to say

6. Please indicate how much of your pre-tax monthly income you spend on rent.
   - o Less than 5%
   - o 5% to 10%
   - o 11% to 15%
   - o 16% to 20%
   - o 21% to 25%
   - o 26% to 30%
   - o 31% to 35%
   - o 36% to 40%
   - o More than 40%
   - o Prefer not to say