

Diversification in small firms: Does parental influence matter?

Greg Murphy¹, Neil Tocher²

¹Idaho State University, murpgreg@isu.edu

²Idaho State University, tochneil@isu.edu

www.jsbs.org

Keywords:

Parenting, Diversification, Small firms, Subsidiaries, Agency theory

ABSTRACT

Diversification is a common goal for many small firms, yet research examining whether small firm ownership structure influences their use of the tactic is limited. As such, this paper provides one of the first empirical investigations of the subject by examining whether the presence of a corporate parent positively influences the likelihood that small firms will utilize diversification. Results indicate that small firms with corporate parents are more likely to use both related and unrelated diversification than comparable firms that are independently owned. Such findings are noteworthy because diversification may be more beneficial for small, independently owned firms, yet small, subsidiary firms appear to be better able to utilize diversification. Implications of these findings are discussed.

Introduction

“Diversification is like sex: its attractions are obvious, often irresistible. Yet the experience is often disappointing.” (Grant, 2008: p. 409)

The above quote suggests that diversification is a common goal for most businesses, despite research indicating that diversification often has negative consequences (Arikan & Stulz, 2016; Graebner, Eisenhardt, & Roundy, 2010). Extant research suggests that most corporate acquisitions are later divested (e.g. Phelps, 2010), merger activity often leads to a loss in shareholder value (e.g. Malhotra, Ku, & Murnighan, 2008), and firms pay irrationally large takeover premiums to acquire targets (e.g. Lunnan & Haugland, 2008). Research also indicates that internal diversification efforts such as adding cost leader products to a differentiated product line and launching offerings in different industries tend to have limited profits and often take resources away from a firm’s main market offerings (Dunlap-Hinkler, Kotabe, & Mudambi, 2010), leading to reduced long-term profits (Govindarajan & Trimble, 2010). Notably though,

such research primarily focuses on large, established ventures, resulting in a lack of scholarly understanding of diversification patterns in small firms (Deligianni, Voudouris, & Lioukas, 2014; Diestre & Rajagopalan, 2011; Nippa, Pidun, & Rubner, 2012). This gap is particularly troubling because research indicates that diversification efforts in small firms may have more influence on profitability, growth, and survival compared to comparable efforts within large, established ventures (Stern & Henderson, 2004). Given this, the present paper examines an important piece of the small firm diversification puzzle by studying if the product lines of small, subsidiary firms are more or less diversified than those of small, independently owned firms.

Interestingly, diversification efforts represent a conundrum for small firms. Importantly, small, independent firms diversify for a variety of reasons such as to protect their firm’s income (e.g. Rosa, 1998), enhance their chance to survive specific market downturns (e.g. Sandvig & Coakley, 1998), and build wealth for the firm’s owner (e.g. Gutter & Saleem, 2005). Notably however, small, independent firms often have limited access to critical resources (Zimmerman & Zeitz, 2002) hindering their abilities to undertake critical diversification efforts (Rutherford, Tocher, Pollack, & Coombes, 2016). Conversely, corporate parents tend to invest in small firms to add the small firm’s specific market

Journal of Small Business Strategy
2017, Vol. 27 No 03, 25-38
ISSN: 1081-8510 (Print) 2380-1751 (Online)
©Copyright 2017 Small Business Institute®

APA Citation Information: Murphy, G., & Tocher, N. (2017). Diversification in small firms: Does parental influence matter? *Journal of Small Business Strategy*, 27(3), 25-38.

offerings to the parent's portfolio and thus likely want the small business to stay focused on continual improvement of such market offerings (Carroll, Bigelow, Seidel, & Tsai, 1996). That said, it must also be noted that the presence of a corporate parent will likely expand small subsidiary access to resources, enhancing small subsidiary's chances to successfully undertake desired diversification efforts (Murphy & Tocher, 2011). Further, while such diversification efforts are likely desired by the subsidiary's managers for income and market protection (Gutter & Saleem, 2005; Sandvig & Coakley, 1998), they may not be desired by parent firms following a portfolio management strategy (Lange, Boivie, & Henderson, 2009). Hence, a conundrum exists whereby small, independent firms may need to diversify for their firm's wellbeing, but are not able to; while small, subsidiary firms may possess access to resources needed for diversification, but their corporate parent may not want them to do so. Perplexingly, despite this conundrum, little research has examined if the presence of a corporate parent affects diversification patterns of small firms (Diestre & Rajagopalan, 2011).

Given the above, the present paper contributes to the literature by providing one of the first studies of the diversification patterns of small, independent firms versus small, subsidiary firms. Analyzing several comparable samples of small subsidiaries and small, independent firms in the retail industry, and grounding our arguments with agency theory, we posit and test the notion that the presence of a corporate parent will result in increased diversification. Notably, this study focuses on within-firm product diversification, which happens when firms extend existing product lines or move into new product lines (Nippa et al., 2012). Although most of the diversification literature focuses on differences between business units operating as part of a corporation, we focus on within-firm diversification because it may be more important than between business unit diversification under a corporate umbrella to firms' abilities to survive, grow, generate profits, and adjust to environmental changes (Stern & Henderson, 2004).

Theoretical Framework

Agency Theory

Agency theory arose in the 1970s and asserts that conflict will arise between a firm's owners (known as principals) and those who operate firms on the owner's behalf (known as agents) due to factors such as different goals, information asymmetry, and difficulty in oversight relationships (Jensen & Meckling, 1976). To avoid agency problems, principals attempt to create incentive systems to motivate agents to act in the principals' interest such as pay incentives and stock ownership (Jensen & Murphy,

1990). However, oversight is difficult and thus certain levels of agency costs (the portion of owner returns lost due to managers acting in their own self-interest instead of maximizing shareholder returns) are expected (Denis, Denis, & Sarin, 1999). As such, the theory predicts that agents acting on behalf of principals may often take actions that maximize the agent's personal benefits at the expense of owner wealth maximization (Bendickson, Davis, Cowden, & Liguori, 2015; Simerly & Li, 2000). As noted, diversification efforts rarely increase shareholder value over time (Graebner et al., 2010; Phelps, 2010). However, managers often pursue diversification strategies because such strategies may help diversify the market offerings of the manager's firm (Lim, Das, & Das, 2009), allow the manager to negotiate a higher salary (Jenson, 1986; Stultz, 1990), and create a belief that the manager is irreplaceable to the company (Shleifer & Vishny, 1989). Such efforts are in the manager's interests but will rarely if ever maximize shareholder wealth because it is often cheaper and easier for shareholders to diversify their own personal risk by purchasing a diversified portfolio of stocks in various companies who are at the top of their specific industries than it is for one individual company to compete at a high level in many different industries (Dunlap-Hinkler et al., 2010; Govindarajan & Trimble, 2010).

In the small firm context, the introduction of a parent will likely create agency costs in firms that previously did not have such costs (e.g. Felício, Rodrigues, & Samagaio, 2016; Lange et al., 2009). Research suggests that agency problems are highest in firms that are completely controlled by managers and such problems are minimized as principals maintain some percentage of control (Hambrick & Finkelstein, 1995). In a small subsidiary, once a parent comes aboard, the once independently owned venture will transition to becoming operated by a manager acting partially, if not entirely, on behalf of the parent, which will almost certainly create agency costs (Lim et al., 2009). Perhaps the most common agency cost arises when managers diversify the firms' market offerings to minimize market risk and increase their chance to keep their jobs (Simerly & Li, 2000). It is important to note that an independent business owner is concerned primarily, if not exclusively, with profitability because the business is likely the owner's primary source of income and wealth (Gutter & Saleem, 2005). Thus, owners of independent small firms will likely only diversify to increase their firm's profitability and will not be motivated to keep managerial positions, build power empires, or move up in a parent's other entities, but subsidiary managers working on behalf of a parent firm may likely be motivated by the above factors (Denis et al., 1999), creating agency costs (Jensen, 1986). Therefore, agency theory suggests that diversification is more likely in

small, subsidiary ventures than it is in small, independently owned ventures because the presence of a parent will create a much stronger possibility of agency costs which will not likely exist in independently owned firms (Lange et al., 2009). As such, we posit that agency theory provides theoretical foundation for the notion that small, subsidiary ventures will be more likely to undertake diversification efforts than small, independent firms. Given the above theoretical assertions, we next review the small firm diversification literature before positing that the presence of a parent will increase diversification in small ventures.

Small Firms and Diversification

Small firms attempt to diversify for a variety of reasons. In general, small firms are more likely to use diversification to survive and to exploit identified business opportunities. Rosa (1998) argued that in good times, entrepreneurs are more likely to use diversification to exploit opportunities, while in bad times they adopt a more deliberate, planned approach to diversification focusing on ensuring survival. Gutter and Saleem (2005) offer further insight into why small business owners diversify. The authors note that compared to others, small business owners face far greater financial vulnerability since they rely on their business for both income and wealth. The result may be that small business owners need to diversify to reduce the risk that significant change in one market could hinder their firm's profitability and thus destroy their income and largest retirement asset. Additional reasons that small business owners diversify include sales stimulation, enhanced financial growth, meeting market needs, satisfying customer requests, using existing resources more effectively, providing opportunities for a spouse, and adding greater variety for the entrepreneur (Lynn & Reinsch, 1990; Tornikoski & Newbert, 2007).

However, there are likely differences in the abilities of small, independent firms compared to small, subsidiary firms to diversify. Due to limited access to resources, small, independent firms are often in a daily fight for survival (Aldrich, 1999; Choi & Shepherd, 2005; Williamson, 2000). Notably, small, independent firms are typically constrained by smallness liabilities, a condition where emerging ventures have little market power because of a lack of access to key tangible resources possessed by potential stakeholders (Morris, 2001). Since small, independent firms commonly have limited debt capacity, poor cash flows, a limited product/service offering, and depend on niche markets, they are more susceptible to market forces such as aggressive competitors, demand fluctuations, and powerful suppliers (Wiklund, Baker, & Shepherd, 2010). Hence, to overcome smallness liabilities, small, independent firms must be highly focused on resource acquisition, often at

the expense of focusing on other more minor issues (Jawahar & McLaughlin, 2001). However, before small, independent firms will be able to gain the consistent access to resources needed to neutralize liabilities of smallness, such firms must first be deemed as viable by key stakeholders (Holt & Macpherson, 2010; Khaire, 2010). To accomplish this, small, independent firms often bring on a powerful stakeholder in some form of long term relationship such as strategic alliances, joint ventures, and contractual relationships to signal to other potential stakeholders that the firm is viable and worthy of resources (Kelly, Schaan, & Joncas, 2015; Wright, Palmer, & Perkins, 2004). Perhaps the strongest signal that an emerging venture has successfully shed smallness liabilities is provided by a corporate parent investing in the firm and taking it on as a subsidiary (Pollack et al., 2012). Since parents enter into a contractual relationship with a subsidiary that is difficult to sever, it follows that prior to entering such a relationship, a parent would perform a solid due diligence investigation to determine if the parent will quickly see a return on investment (Ardichvili, Cardozo, & Ray, 2003; Arthurs & Busenitz, 2003). Hence, once a parent invests in a small, emerging venture, it follows that other key stakeholders will soon jump on board, providing the emerging venture access to resources (both internally from parents and externally from other stakeholders) needed for diversification efforts. Therefore, we conclude that the presence of a corporate parent will facilitate diversification in small firms.

Small firms and related diversification. Due to a simple ownership structure and few stakeholders, owners of small, independently owned businesses have great autonomy in pursuing their objectives (e.g. McMahon & Stanger, 1995) whereas managers of small, subsidiary firms are likely restrained in decision making due to being accountable to parent firms and a variety of other powerful stakeholders (Dimov, 2010). Accordingly, small, independent business owners may have greater autonomy, but less ability to diversify (Lange et al., 2009). Further, small, independent firms are more vulnerable to the risk of market offering obsolescence (Sandvig & Coakley, 1998). Small, independent firms are more likely to be dependent on a few key market offerings and they generally have fewer resources that can be used to generate new key products relative to small, subsidiary firms (Rutherford, Buller, & Stebbins, 2009). The product obsolescence risk faced by small, independent businesses is heightened by the fact that they often operate in volatile market niches that can shrink or easily be entered by more powerful, low cost competitors (e.g. Delmar & Shane, 2004). This increased market offering obsolescence risk provides a strong motive for owners of small, independent firms to diversify as a means to increase the firm's chances of survival (Liao, Kickul, & Ma,

2009). Hence, owners of small, independent firms are likely very aware of the risks of not being diversified and that awareness may motivate the owner to diversify to reduce their risk exposure, even if doing so means sacrificing possible returns (McMahon & Stanger, 1995; Witt, 2004).

Hence, while small, independently owned firms likely have interest in related diversification to protect themselves from product obsolescence and powerful competitors, market realities will likely result in subsidiary small businesses being better able to utilize related diversification. For example, small subsidiaries are able to obtain resources such as funding, expertise, and managerial capacity needed for market entry from a corporate parent (Murphy & Tocher, 2011) while independently owned firms may struggle to acquire such resources due to smallness liabilities and the resultant doubts which exist in stakeholders minds as a result of such realities (Rutherford et al., 2016). Further, since small, subsidiary ventures will have agency costs which do not likely exist in small, independently owned ventures, subsidiary managers will be more likely to diversify to protect the firm against market risk and thereby also protect their managerial jobs (Denis et al., 1999; Lim et al., 2009). Conversely, independent owners will likely only diversify if they feel diversification efforts will increase their firms' profitability and wealth (Gutter & Saleem, 2005). As such, we posit that all small firms will typically seek to engage in related diversification to hedge against product obsolescence and powerful competitors. However, since subsidiary ventures have access to better pools of resources and have also likely developed agency costs, subsidiary ventures will be more likely to utilize related diversification. Hence, the following is advanced:

Hypothesis 1. Small, subsidiary firms will engage in more related diversification than small, independent firms.

Small firms and unrelated diversification. Unrelated diversification may be more common in subsidiary firms because both subsidiary managers and parent firms may be motivated to diversify a subsidiary into an activity that is unrelated to the subsidiary's business, but is related to the parent's line of business (Lim et al., 2009; Mackey, Barney, & Dotson, 2017). For example, subsidiary managers may be motivated to engage in such diversification to better align the subsidiary to the parent firm and/or gain recognition from the parent firm (Denis et al., 1999). Similarly, interdependency issues will likely lead to small, subsidiary firms being involved in more unrelated diversification than small, independent firms (Stam & Elfring, 2008). Importantly, managers operating subsidiary ventures may make decisions that are aligned with the interdependency that is often created when a parent subsidiary relationship is created and nurtured over time (Wang & Barney, 2006).

Hence, while parent firms may purchase a subsidiary because the parent wants the subsidiary to focus on their niche and generate profits for the parent (e.g. Lange et al., 2009), the parent may also want the subsidiary firm to provide other benefits to the parent in addition to profits (Gomes & Livdan, 2004). Examples of additional benefits which the parent firm may want a subsidiary to offer include serving as a supplier to the parent, serving as a customer for a parent's market offering, producing a market offering that is complementary or additive to a parent's offering, and providing additional work for expert employees of the parent firm (Maksimovic & Phillips, 2002). Notably, while subsidiary firms providing these benefits are likely beneficial for both the parent and the subsidiary, serving these roles may often involve unrelated diversification for the small subsidiary venture (Mackey et al., 2017; Simerly & Li, 2000). Given the above, it appears that small, subsidiary ventures will be more likely to engage in unrelated diversification than comparable small, independent ventures. As such, the following is advanced:

Hypothesis 2. Small, subsidiary firms will engage in more unrelated diversification than small, independent firms.

Method

Data for the study were gathered from Reference USA. Reference USA claims to report data on over 14 million businesses in the United States. To identify a sample of small subsidiaries, data on non-government, non-branch and non-headquarter subsidiary retail firms with less than 500 employees were gathered. A total of 1242 such firms were identified. Branch locations were excluded since they are likely to have never had independent ownership. Retail firms were chosen because McGahan and Porter (1997) noted that corporate level effects (possibly including diversification) are strongest in the retail and wholesale industries. To identify a comparative sample, random names were chosen and used as street names to identify non-government, non-branch, non-headquarter, and non-subsidiary, single location independent retail firms with less than 500 employees. This process identified 2099 such firms. In general, subsidiary firms were larger and had more executives than independent firms. Accordingly, firm size and number of executives were controlled for in the analysis.

Three measures of diversification were used. The measures all used SIC codes to differentiate industries. Although NAICS codes are newer, SIC codes were used because Reference USA reports up to 10 SIC codes per company and only 4 NAICS codes per company. Past research has shown little difference in industry homogeneity between samples drawn from SIC and NAICS codes (Cairney & Fletcher, 2009; Bhojraj, Lee, & Oler, 2003), and SIC codes are still frequent-

ly used to distinguish industries (c.f. Mackey et al., 2017; Chen & Kelly, 2015; Rauh & Sufi, 2012; Bens, Berger, & Monahan, 2011). The first measure of diversification used is the number of different SIC codes reported. Firms in the total sample reported an average of 1.9 SIC codes with a standard deviation of 1.45. Firms reporting more SIC codes are engaged in more lines of business and can therefore be said to be more diversified. 1449 of the 3341 firms in the total sample (43.37%) reported more than one SIC code. 778 of the 2099 independent firms (37.07%) reported more than one SIC code while 671 of the 1242 subsidiary firms (54.03%) reported more than one SIC code.

The second measure of diversification is designed to capture the degree of relatedness/un-relatedness of the firm's diversification efforts. The method of measuring relatedness/unrelatedness is similar to that employed by Diestre and Rajagopalan (2011), who measured relatedness as the degree of difference in SIC code digits. Other studies have used differences in SIC codes to measure diversification, usually at the three or four digit SIC code level (David, O'Brien, Yoshikawa, & Delios, 2010; Stern & Henderson, 2004). To measure relatedness, each subsequent SIC code was given a score of 1 if only its 6th digit differed from the firm's stated primary SIC code, a score of 2 was given if the 5th digit was different, a score of 3 was given if the 4th digit was different, a score of 4 was given if the 3^d digit was different, a score of 5 was assigned if the 2^d digit was different, and finally, a score of 6 was given if the 1st digit was different than the stated primary SIC code. This process was repeated for each subsequently listed SIC code. Finally, all of the scores were summed for each firm and divided by the stated number of SIC codes (-1) for that firm. Consequently, firms with higher numbers on this measure engaged in business activities that were more unrelated to their stated primary SIC code than firms with lower numbers on this measure. This measure makes it possible for a firm with fewer listed SIC codes to have a higher diversification score than a firm with more stated SIC codes. The average relatedness score for the overall sample was 1.89 with a standard deviation of 2.41.

The final measure of diversification is designed to capture the impact of SIC code clusters. For example, using the diversification measures used above, the following hypothetical firms would have identical scores on both measures.

Firm 1 SIC Codes (primary SIC code first): 222222, 223333, 444444, 555555, 666666

Firm 2 SIC Codes (primary SIC code first): 222222, 223333, 444444, 445555, 446666

Both firms have 5 different SIC codes and the unrelatedness measure of each would be 4.75; however, the clus-

tering of SIC codes by firm 2 above suggests that it is less diversified than firm 1. The number of SIC code clusters was therefore measured as the number of different 2 digit SIC codes reported by each firm. Using this measure, for example, firm 1 would be scored with a 4 while firm 2 would be scored with a 2, indicating that firm 1 is engaged in more industry clusters than firm 2.

Company status was measured using dummy variables. Independent firms were coded with a 0 while subsidiary firms were coded with a 1. The mean for this variable was .37 and the standard deviation was .48.

Three control measures were used in the study: firm age, number of employees, and number of executives. Firm age was included as a control since older firms will have had more time to diversify and will also likely have more legitimacy, granting them access to resources that may be used to facilitate diversification. The number of years since the company first used a yellow page ad was used as a proxy for firm age. While an imperfect measure of firm age, retail firms have a strong interest in being listed in local yellow pages. The number of employees was used as a proxy for firm size and was included as a control since larger firms are also likely to have access to more resources that can be used in diversification efforts. Reference USA provides data on number of employees in size groupings: firms with 0-4 employees were coded 1, firms with 5-9 employees were coded 2, firms with 10-19 employees were coded 3, firms with 20-49 employees were coded 4, firms with 50-99 employees were coded 5, firms with 100-249 employees were coded 6, and firms with 250-499 employees were coded 7. Finally, number of executives was used as a proxy for managerial capacity. Managing diversified firms increases coordination demands on managers. Having more executives should help alleviate the managerial capacity challenge, making diversification efforts easier and arguably, more likely. Reference USA lists up to 21 executives (including the primary firm contact) for each firm. Number of executives was measured as the total number of executives listed for each firm. The number of executives per firm ranged from 1 to 11 in the samples.

Results

Means, standard deviations, and correlations for the variables in the study are reported in Table 1 for the full sample and in Table 2 for the sample of only firms reporting more than one SIC code (firms that have diversified). Table 1 shows strong positive correlations between company status and all three diversification measures. Table 2 shows significant positive associations between company status and the measures unrelatedness and number of SIC code clusters. The insignificant relationship between company status and number of SIC codes in Table 2 may be due to

Table 1
Means, Standard Deviations, and Correlations

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Firm Age	11.60	7.40						
2. # Employees	3.62	1.90	.23**					
3. # Executives	2.13	1.93	.15**	.52**				
4. Company Status	.37	.48	.09**	.23**	.22**			
5. # SIC Codes	1.90	1.45	.37**	.25**	.23**	.13**		
6. Unrelatedness	1.89	2.41	.32**	.23**	.22**	.26**	.66**	
7. # SIC Clusters	1.48	.85	.31**	.24**	.25**	.27**	.81**	.78**

N = 3319

***p* < .001

the fact that a smaller percentage of independently owned firms listed more than one SIC code compared to small subsidiary firms.

These preliminary findings are further illustrated in Tables 3 and 4 that show mean differences between small independent firms and small subsidiaries on the three control variables of firm age, number of employees, and number of executives; and on number of SIC codes, unrelatedness, and number of SIC code clusters. Table 3 reports mean differences for all firms in the sample, while Table 4 reports mean differences for firms reporting more than one SIC code.

The results of regression analysis are reported in Tables 5 and 6. Table 5 shows that, for the sample as a whole, subsidiary status is significantly and positively related to number of SIC codes, unrelatedness, and to number of SIC code clusters, when controlling for the effects of firm age, number of employees, and number of executives. Table 6 shows that, for the sample of firms that are in more than

one SIC code, subsidiary status is significantly and positively related to unrelatedness and number of SIC code clusters when controlling for firm age, number of employees, and number of executives.

These results provide strong support for Hypotheses 1 and 2, that small, subsidiary firms are more likely to diversify and are more likely to pursue unrelated diversification than are small, independently owned firms.

The insignificant relationship between company status and number of SIC codes in Table 6 is consistent with the finding in Table 2 that, among firms that have already diversified into at least one additional line of business, company status was no longer associated with number of SIC codes. The discrepancy between the company status and number of SIC codes relationships in Tables 5 and 6 may be caused by the fact that fewer independent firms were found to have engaged in any diversification compared to subsidiary firms.

Table 2
Means, Standard Deviations, and Correlations for Firms Reporting more than 1 SIC Code

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Firm Age	14.67	6.95						
2. # Employees	4.11	1.77	.17**					
3. # Executives	2.54	2.16	.12**	.50**				
4. Company Status	.46	.50	-.01	.13**	.17**			
5. # SIC Codes	3.07	1.57	.27**	.21**	.20**	.03		
6. Unrelatedness	4.36	1.63	-.02	.10**	.15**	.36**	.09**	
7. # SIC Clusters	2.10	.98	.17**	.19**	.23**	.32**	.66**	.59**

N = 1449

***p* < .001

Table 3
Means and Standard Deviations by Firm Status

	Independent Firms		Subsidiary Firms		F
	M	SD	M	SD	
Firm Age	11.09	7.77	12.48	6.65	27.63**
Number of Employees	3.28	1.98	4.20	4.00	189.61**
Number of Executives	1.80	1.62	2.67	2.26	164.66**
Number of SIC Codes	1.75	1.36	2.14	1.57	57.11**
Unrelatedness	1.41	2.10	2.69	2.68	269.20**
Number of SIC Clusters	1.30	.64	1.78	1.05	237.47**

N = 3341

** $p < .001$

Table 4
Means and Standard Deviations by Firm Status for Firms Reporting more than one SIC Code

	Independent Firms		Subsidiary Firms		F
	M	SD	M	SD	
Firm Age	14.72	7.50	14.61	6.26	.09
Number of Employees	3.90	1.88	4.36	1.60	25.30**
Number of Executives	2.21	1.88	2.92	2.39	40.26**
Number of SIC Codes	3.03	1.56	3.11	1.58	1.06
Unrelatedness	3.81	1.66	5.00	1.33	165.70**
Number of SIC Clusters	1.81	.83	2.44	1.04	219.24**

N = 1449

** $p < .001$

Robustness of Results

Multiple robustness checks were conducted. A random sample of 1200 independent firms and 1200 subsidiary firms were selected and analyzed from the larger dataset to ensure that unequal sample sizes were not skewing the results. This process yielded results very comparable to those reported above. All of the significant relationships reported in Tables 1-6 were still significant for this analysis.

A second set of tests used the number of NAICS codes instead of number of SIC codes to confirm that the selection of SIC codes as opposed to NAICS codes to measure diversification did not bias the outcomes of this study. The results of this analysis revealed equivalent results to the main findings of this study, indicating no statistically meaningful differences as a result of using SIC codes versus NAICS codes.

Smaller subsamples were then drawn from the larger dataset to assess the robustness of the findings to lower levels of statistical power. Specifically, random samples of 200 independent and 200 subsidiary firms were chosen

and analyzed for consistency of results with the findings of this study. This process was repeated five times to ensure that the results were not a function of chance. The findings that company status (independent or subsidiary) was significantly associated with the measures of unrelatedness and number of SIC code clusters was strongly supported by this analysis. All of the relationships were still significant at the .001 level of significance in all five iterations of the analysis. The finding that company status was significantly associated with number of SIC codes was not consistently supported given this reduced level of statistical power. The finding was only statistically significant at .05 in one iteration of the analysis. This finding indicates a smaller effect size for the company status – number of SIC codes relationship.

Discussion

The current paper sought to provide one of the first examinations of whether the presence of a corporate parent influences diversification patterns of small firms. While

Table 5
Regression on Diversification Measures

	# SIC Codes	Unrelatedness	# SIC Clusters
Firm Age	.33**	.27**	.26**
# Employees	.10**	.07**	.06**
# Executives	.11**	.09**	.12**
Company Status	.05*	.19**	.21**
F	181.01**	173.00**	183.53**
Adjusted R ²	.18	.17	.18

N=3317

* $p < .005$

** $p < .001$

Standardized Coefficients Reported

Table 6
Regression on Diversification Measures for Firms Reporting more than 1 SIC Code

	# SIC Codes	Unrelatedness	# SIC Clusters
Firm Age	.23**	-.03	.14
# Employees	.13**	.02	.07*
# Executives	.09**	.09**	.10**
Company Status	-.01	.34**	.30**
F	43.39**	57.65**	65.49**
Adjusted R ²	.10	.14	.15

N=1436

* $p < .01$

** $p < .001$

Standardized Coefficients Reported

much previous research suggests that diversification is a widely used yet ineffective tactic, such research rarely focuses on small firms (Diestre & Rajagopalan, 2011). Such a gap in the literature is troubling because while diversification efforts in small ventures may be more influential on profitability and growth compared to similar efforts in larger firms (Stern & Henderson, 2004), scholars know little about when and if small ventures will be more likely to diversify (Nippa et al., 2012). Hence, the present paper makes an important contribution to current literature by beginning to examine the small firm diversification puzzle. Using several comparison samples of small, independently owned firms and small, subsidiary firms in the retail industry, we find that subsidiary ventures are more likely to engage in both related and unrelated diversification. Notably, these findings hold even when examining only the subset of firms that have diversified. Further, it is interesting to note that while subsidiaries that have diversified engage in approximately the same number of different industries,

their diversification efforts are more likely to be in unrelated industries when compared to diversified independently owned firms. Collectively, such findings suggest that the presence of a corporate parent enhances the chances that small ventures will diversify. Such findings are noteworthy for several reasons as follows:

First, study findings indicate that parent firms need to put safeguards in place to monitor agency costs (e.g. Denis et al., 1999; Hoenen & Kostova, 2015). The presence of a parent will likely create some agency costs as previously independent firms transition to subsidiary firms operated by managers acting on behalf of parent firms (Simerly & Li, 2000). While agency costs may not be as high as they are in the large, public firm sector, the introduction of a parent will still likely create some agency costs and thus a parent firm needs to take actions to prevent such costs from growing to an unacceptable level (Lim et al., 2009). Parents should thus consider strategies to align subsidiary managers' interests with their interests such as pay incen-

tives, bonuses, stock options, and subsidiary performance targets (Jensen & Murphy, 1990). Additionally, parent firms should take an active approach in management of subsidiary ventures by maintaining a strong presence on boards of directors, regularly meeting with subsidiary managers, and even developing exit strategies that could be implemented in cases of poor performance (Dunlap-Hinkler et al., 2010; Govindarajan & Trimble, 2010). At a minimum, parent firms need to be aware that subsidiary managers will potentially be motivated to take actions that will not lead to profit maximization and may make it difficult to remove managers (e.g. Nippa et al., 2012). Hence, agency costs are likely present in all parent subsidiary relationships and parent firms should act accordingly.

Similarly, parent firms should also be aware that subsidiary diversification may have diminishing returns over time. Specifically, initial subsidiary diversification may indeed maximize profitability and later diversification efforts may be much less beneficial (Stern & Henderson, 2004). At the inception of the parent subsidiary relationship, a subsidiary firm will likely possess the access to needed resources for critical diversification efforts that it was not able to undertake as an independent firm due to smallness liabilities (Rutherford et al., 2016). Hence, the subsidiaries early diversification efforts likely maximize profits and are undertaken because the subsidiary possesses the access to resources it did not possess as an independent firm (Wiklund et al., 2010). Further, early in the parent subsidiary relationship, the parent may also want the subsidiary to diversify into areas that benefit the parent (Nippa et al., 2012). For example, corporate parents may view their ownership of a subsidiary retail business as an opportunity to cross-sell their own products, thereby increasing the diversification of the subsidiary. A highly diversified parent firm may also encourage a subsidiary to diversify to align with that parent's business practices. A small subsidiary that serves as a supplier to a parent firm may also be encouraged to offer a broader range of products that the parent needs as inputs. However, once such initial diversification efforts take place, later diversification efforts may be motivated by other concerns (e.g. Lim et al., 2009). Continual diversification on the part of subsidiaries may suggest that parent firms are ineffective in controlling the behavior of their corporate children. Such subsidiaries may be using diversification primarily as a means to grow their business or reduce their risk, leveraging the parent association to attain resources directly or indirectly (through increased perceived market power) needed to diversify (Simerly & Li, 2000). Future research should be undertaken to examine if indeed subsidiary diversification has diminishing benefits over time.

Further, study findings suggest that access to resources

may significantly constrain diversification in small, independent firms. Scholars suggest that small, independent firms may need to engage in limited diversification to enhance their chances to survive and grow, whereas corporate parents following a portfolio management strategy would likely discourage most subsidiary diversification efforts (Carroll et al., 1996; Gutter & Saleem, 2005). However, study findings indicate exactly the opposite in that subsidiary firms are more likely to engage in both related and unrelated diversification. Considering previous research findings that small, independent firms seek to diversify for a variety of reasons (e.g. Sandvig & Coakley, 1998) combined with this study's observation that such firms are less likely to engage in the practice, it appears that small, independent firms are likely not able to access needed resources for desired diversification efforts. It would further seem that parent firms following portfolio management strategies would discourage most subsidiary diversification efforts because the parent firm would rather its small subsidiaries concentrate on maximizing returns from their existing market offerings (e.g. Lange et al., 2009). However, the finding that subsidiary firms engage in more diversification suggests that the presence of a parent indicates that subsidiary ventures are able to consistently access the resources from internal capital markets needed for diversification efforts (e.g. Rutherford et al., 2016). Therefore, the somewhat counterintuitive findings observed here provide credence to the notion that resource constraints hinder the ability of small, independent firms to engage in diversification.

Finally, the retail setting of the present study may suggest that its findings may be even more observable in other industries in which diversification efforts are more difficult. Retail is a far easier industry than many other industries (i.e. manufacturing, design, physical sciences) in which to diversify (Dunlap-Hinkler et al., 2010). Thus, it is notable that even in an industry in which diversification is fairly easy and inexpensive, it was observed that small subsidiary ventures are more likely than independent small firms to engage in both related and unrelated diversification. Hence, industries that are capital intensive such as design, manufacturing, or biotechnology may be far more difficult marketplaces for small, independent firms to diversify (Govindarajan & Trimble, 2010). Therefore, while future research is needed to further validate the results observed here, it is quite likely that the diversification pattern observed in the present study may hold in validation studies in many other industries (e.g. Diestre & Rajagopalan, 2011).

Implications for Small Firms

Study findings suggest that parenting may have a sort of dual-edged sword effect for small firms. As noted above, small, independent firms will often struggle to acquire the

needed resources to diversify, and this may hinder their ability to survive and grow (e.g. Rutherford et al., 2016). Thus, entering into a parent subsidiary relationship may be quite tempting for small, independent firms who are struggling to undertake diversification efforts (Choi & Shepherd, 2005). However, small firms must also understand that entering into a parent subsidiary relationship may often significantly change a small firm's culture, decision making, and main purpose (Lange et al., 2009). Given that small, subsidiary firms are more likely to engage in unrelated diversification (from the perspective of the subsidiary venture), along with the idea that such diversification is likely driven by both subsidiary managers and parent firms for motives other than profitability (Simerly & Li, 2000), owners of small, independent firms considering parenting as a strategic option must be aware of both edges of the parenting sword (Murphy & Tocher, 2011). On one hand, staying independent may significantly hinder diversification and possibly even survival and growth (Zimmerman & Zeitz, 2002). Conversely, while parenting offers increased diversification and stability (Carroll et al., 1996), it may also significantly change how the firm is operated and the motivations it utilizes to make decisions (Mackey et al., 2017). Hence, when it comes to parenting, there may not be a right or wrong decision for small firms, but their owners do need to be aware of the pros and cons of the decision of "to take on a parent or stay free?"

Small firms also need to be aware of similar options to parenting such as strategic alliances, joint ventures, and long term contractual relationships with powerful partners. Such options may provide many of the same benefits as parenting does, but may not be quite as constraining (Kelly et al., 2015; Wright et al., 2005). However, as with the parenting decision, small firms must understand that any decision to enter into a long-term relationship with a more powerful entity has both positives and negatives (Lechner, Dowling, & Welp, 2006; Stam & Elfring, 2008).

Finally, owners of small, independent firms must be aware that bringing a corporate parent on board will likely limit and even quite possibly eliminate their involvement with the firm they presently own (Maksimovic & Phillips, 2002). While all parent subsidiary relationships are different, a previous owner may be kept on in a managerial role, may be kept on in an employment role, may be kept on in a role which diminishes over time, and may not be kept on at all (Gomes & Livdan, 2004). Thus, owners must make the parenting choice with the understanding that the above results are all possibilities once the firm transitions to a subsidiary.

Limitations

Perhaps the most notable limitation is that the pres-

ent study was unable to assess owner motivations for diversification. While we observed that small, subsidiary ventures were more likely to diversify than small, independent firms, we do not know if the owners of small, independent ventures chose not to diversify even though they may have been able to do so. It is certainly reasonable in many cases that small, independent firms did not diversify because they lack the access to resources needed to do so (e.g. Hoefler & Green, 2016), but it would certainly substantiate study findings to assess owner motivations for diversification. Similarly, while our study theorized that both subsidiary managers and parent firms may encourage subsidiary ventures to engage in unrelated diversification, it must be noted that the data analyzed do not allow us to determine if subsidiary managers or parent firms were the primary drivers of this diversification. Next, the present study did not assess firm profitability. Most research finds that diversification efforts often do not increase firm profitability and thus suggest that the diversified subsidiaries observed in this study may be less profitable per capita over the long term than their less diversified independent counterparts. However, the present study is only able to observe pure diversification patterns in small ventures and is unable to determine if such patterns influence firm performance. Further, as noted, the present study is limited by the fact that it only examines the retail industry. While this setting has advantages in that retail is a fairly easy industry in which to diversify, validation studies in other industry settings are needed to substantiate the patterns uncovered in this paper and identify if similar patterns exist in different industries. Finally, while this study's findings that subsidiary ventures engaged in more unrelated diversification than comparable small, independent firms is notable, it is also important to clarify that unrelated diversification was studied from the perspective of the subsidiary, not the parent firm. Thus, it is possible that diversification efforts may be unrelated to a subsidiary's line of business, but are somehow related to a parent's line of business. Hence, our study only allows us to say that subsidiary ventures likely engage in unrelated diversification from the subsidiary's perspective. Despite the above limitations, the present paper makes a substantial contribution to current literature by being one of the first empirical examinations of diversification patterns of small firms.

Future Research

The present study highlights several ripe areas for future research. As noted, validation studies are needed both within the retail industry and in other settings. Researchers may want to consider validating the present study's findings with samples from such entities as the Department of Labor, the Business Census, and other sec-

ondary data sources which may collect more details about variables such as firm ownership structure and historical financial records. It would seem that the diversification patterns observed here may hold in industries where diversification efforts are more difficult to undertake and it would also seem that validation studies in the retail industry would likely have similar findings. However, future research is needed to substantiate such claims. Studies are also needed which assess owner motivation for diversification and examine the influence that small firm diversification has on profitability.

Further research is also needed to determine if small firm diversification has diminishing returns over time. The limited resource access faced by many small, independent firms would suggest that small, independent firms would like to diversify, but often are not able to do so. Similarly, it seems logical that at the initial stages of a parent subsidiary relationship diversification would have high returns because both the subsidiary and the parent may have diversification efforts planned out that were not able to be accomplished until the parent came on board, but, over time, subsidiary managers would initiate other diversification efforts that are motivated by other factors besides profit maximization (e.g. Lim et al., 1999). That said, empirical studies are needed to validate these musings.

Finally, research should examine other factors besides the introduction of a corporate parent which may allow small, independent firms to successfully undertake critical diversification efforts that are needed for survival. While diversification often has disappointing results over the long term when extensively used (e.g. Graebner et al., 2010), it is highly likely that small firms may need to diversify into areas that may help them survive and grow, but may not be able to do so due to limited resource access (Rutherford et al., 2009). Further, the findings observed in this study suggest that the presence of a corporate parent is a viable strategic action which enables small firms to more frequently utilize diversification. However, taking on a parent firm is likely not the right fit for all small firms and thus research should work to identify other actions small firms may consider taking to gain the access to resources needed to undertake diversification efforts that will help them survive and grow. Perhaps one significant customer or financier engaged in a long-term contract with a small firm may allow that firm to access the resources it needs to undertake critical diversification efforts. Similarly, perhaps the small venture can consider arrangements such as joint ventures, strategic alliances, and contractual agreements with larger or more established partners which may have similar benefits provided by parent firms without the constraints that are associated with becoming a subsidiary (e.g. Kelly et al., 2015; Wright et al., 2005). Previous research suggests that

strategic alliances often allow firms to access needed resources (Davidsson & Honig, 2003; Stam & Elfring, 2008), but such research has not looked specifically at diversification efforts. Therefore, research studying the above quandaries should help increase scholarly understanding of the small firm diversification puzzle.

Conclusion

The present study's findings that small subsidiary ventures are more likely to engage in diversification than comparable independent ventures contributes to the literature by providing one of the first empirical examinations of small firm diversification patterns. Using several comparison samples of small, subsidiary firms and small, independently owned firms in the retail industry, we show that subsidiary ventures consistently engage in diversification and the finding holds even when the sample is reduced to compare only independent and subsidiary ventures that utilize at least some diversification. Such findings are noteworthy because they (1) provide strong evidence that the presence of a corporate parent provides small firms the access to resources needed to engage in diversification, (2) advance scholarly understanding of the small firm diversification puzzle, and (3) are somewhat counter intuitive to scholarly research that suggests independent firms likely want to diversify and parent firms would likely often discourage subsidiary diversification (e.g. Nippa et al., 2012). Given such findings, we posit that small firm diversification is a critically important, yet poorly understood, scholarly topic. While we acknowledge that this is only one study in a single industry, we submit that its counterintuitive findings, the implications of such findings, and the rarity of other empirical examinations of the issue suggest that small firm diversification patterns likely significantly influence economic outcomes and scholars will want to continue working to comprehend such influence.

References

- Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, 18(1), 105-123.
- Arikan, A.M., & Stulz, R. M. (2016). Corporate acquisitions, diversification, and the firm's life cycle. *The Journal of Finance*, 71(1), 139-194.
- Aldrich, H. E. (1999). *Organizations evolving*. London, UK: Sage.
- Arthurs, J. D., & Busenitz, L. W. (2003). The boundaries and limitations of agency theory and stewardship theory in the venture capitalist/entrepreneur relationship. *Entrepreneurship Theory and Practice*, 28(2),

- 145-162.
- Bendickson, J., Davis, P. E., Cowden, B. J., & Liguori, E. W. (2015). Why small firms are different: Addressing varying needs from boards of directors. *Journal of Small Business Strategy*, 25(2), 41-57.
- Bens, D. A., Berger, P. G., & Monahan, S. J. (2011). Discretionary disclosure in financial reporting: An examination comparing internal firm data to externally reported segment data. *The Accounting Review*, 86(2), 417-449.
- Bhojraj, S., Lee, C. M. C., & Oler, D. K. (2003). What's my line? A comparison of industry classification schemes for capital market research. *Journal of Accounting Research*, 41(5), 745-774.
- Cairney, T., & Fletcher, L. B. (2009). Are NAICS industries more homogenous than SICs industries? *Academy of Accounting & Financial Studies Journal*, 13(3), 27-44.
- Carroll, G. R., Bigelow, L. S., Seidel, M. L., & Tsai, L. B. (1996). The fates of de novo and de alio producers in the American automobile industry 1885-1981. *Strategic Management Journal*, 17, 117-137.
- Chen, X., & Kelly, T. F. (2015). B-Corps – A growing form of social enterprise: Tracing their progress and assessing their performance. *Journal of Leadership and Organizational Studies*, 22(1), 102-114.
- Choi, Y. R., & Shepherd, D. A. (2005). Stakeholder perceptions of age and other dimensions of newness. *Journal of Management*, 31, 573-595.
- David, P., O'Brien, J. P., Yoshikawa, T., & Delios, A. (2010). Do shareholders or stakeholders appropriate the rents from corporate diversification? The influence of ownership structure. *Academy of Management Journal*, 53(3), 636-654.
- Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301-331.
- Delmar, F., & Shane, S. (2004). Legitimizing first: Organizing activities and the survival of new ventures. *Journal of Business Venturing*, 19, 385-410.
- Denis, D. J., Denis, D. K., & Sarin, A. (1999). Agency theory and the influence of equity ownership structure on corporate diversification. *Strategic Management Journal*, 20(11), 1071-1076.
- Diestre, L., & Rajagopalan, N. (2011). An environmental perspective on diversification: The effects of chemical relatedness and regulatory sanctions. *Academy of Management Journal*, 54(1), 97-115.
- Deligianni, I., Voudouris, I., & Lioukas, S. (2014). The relationship between innovation and diversification in the case of new ventures: Unidirectional or bidirectional? *IEEE Transactions on Engineering Management*, 61(3), 462-475.
- Dimov, D. (2010). Nascent entrepreneurs and venture emergence: Opportunity confidence, human capital, and early planning. *Journal of Management Studies*, 47(6), 1123-1153.
- Dunlap-Hinkler, D., Kotabe, M., & Mudambi, R. (2010). A story of breakthrough versus incremental innovation: Corporate entrepreneurship in the global pharmaceutical industry. *Strategic Entrepreneurship Journal*, 4(2), 106-127.
- Felício, J. A., Rodrigues, R., & Samagaio, A. (2016). Corporate governance and the performance of commercial banks: A fuzzy-set QCA approach. *Journal of Small Business Strategy*, 26(1), 87-101.
- Gomes, J., & Livdan, D. (2004). Optimal diversification: Reconciling theory and evidence. *Journal of Finance*, 59, 507-535.
- Govindarajan, V., & Trimble, C. (2010). *The other side of innovation: Solving the execution challenge*. Boston, MA: Harvard Business School Press.
- Graebner, M. E., Eisenhardt, K. M., & Roundy, P. T. (2010). Success and failure in technology acquisitions: Lessons for buyers and sellers. *Academy of Management Perspectives*, 24(3), 73-92.
- Grant, R. M. (2008). *Contemporary strategy analysis* (6th ed.). Malden, MA: Blackwell Publishing.
- Gutter, M. S., & Saleem, T. (2005). Financial vulnerability of small business owners. *Financial Services Review*, 14, 133-147.
- Hambrick, D. C., & Finkelstein, S. (1995). The effects of ownership structure on conditions at the top: The case of CEO pay raises. *Strategic Management Journal*, 16(3), 175-193.
- Hofer, R. L., & Green, S. E. (2016). A rhetorical model of institutional decision making: The role of rhetoric in the formation and change of legitimacy judgments. *Academy of Management Review*, 41(1), 130-150.
- Hoenen, A. K., & Kostova, T. (2015). Utilizing the broader agency theory perspective for studying headquarters-subsidiary relations in multinational companies. *Journal of International Business Studies*, 46, 104-113.
- Holt, R., & Macpherson, A. (2010). Sense-making, rhetoric and the socially competent entrepreneur. *International Small Business Journal*, 28(1), 20-36.
- Jawahar, I. M., & McLaughlin, G. L. (2001). Toward a descriptive stakeholder theory: An organizational life cycle approach. *Academy of Management Review*, 26(3), 397-415.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review*, 76, 323-329.

- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3, 305-360.
- Jensen, M. C., & Murphy, K. J. (1990) Performance pay and top management incentives. *Journal of Political Economy*, 98, 225-264.
- Kelly, M. J., Schaan, J. L., & Joncas, H. (2015). Collaboration between technology entrepreneurs and large corporations: Key design and management issue. *Journal of Small Business Strategy*, 11(2), 60-76.
- Khaire, M. (2010). Young and no money? Never mind: The material impact of social resources on new venture growth. *Organization Science*, 21, 169-187.
- Lange, D., Boivie, S., & Henderson, A. D. (2009). The parenting paradox: How multibusiness diversifiers endorse disruptive technologies while their corporate children struggle. *Academy of Management Journal*, 52(1), 179-198.
- Lechner, C., Dowling, M., & Welpe, I. (2006). Firm networks and firm development: The role of the relational mix. *Journal of Business Venturing*, 21(4), 514-533.
- Liao, J., Kickul, J. R., & Ma, M. (2009). Organizational dynamic capability and innovation: An empirical examination of internet firms. *Journal of Small Business Management*, 47(3), 263-286.
- Lim, E. M., Das, S. S., & Das, A. (2009). Diversification strategy, capital structure, and the Asian financial crisis (1997-1998): Evidence from Singapore firms. *Strategic Management Journal*, 30(6), 57-76.
- Lunnan, R., & Haugland, S. A. (2008). Predicting and measuring alliance performance: A multidimensional analysis. *Strategic Management Journal*, 29(5), 545-556.
- Lynn, M. L., & Reinsch, N. L. Jr. (1990). Diversification patterns among small businesses. *Journal of Small Business Management*, 28(4), 60-70.
- Mackey, T. B., Barney, J. B., & Dotson, J. P. (2017). Corporate diversification and the value of individual firms: A Bayesian approach. *Strategic Management Journal*, 38(2), 322-341.
- Maksimovic, V., & Phillips, G. (2002). Do conglomerate firms allocate resources inefficiently across industries? *Journal of Finance*, 57, 721-767.
- Malhotra, D., Ku, G., & Murnighan, J. K. (2008). When winning is everything. *Harvard Business Review*, 66(5), 78-86.
- McGahan, A. M., & Porter, M. E. (1997). How much does industry matter, really? *Strategic Management Journal*, 18, 15-30.
- McMahon, R. G. P., & Stanger, A. M. J. (1995). Understanding the small enterprise financial objective function. *Entrepreneurship Theory & Practice*, 19(4), 21-39.
- Morris, M. H. (2001). The critical role of resources. *Journal of Developmental Entrepreneurship*, 6(2), 5-9.
- Murphy, G. B., & Tocher, N. (2011). Corporate parents, initial legitimacy, and resource acquisition in small and medium firms: An empirical examination. *New England Journal of Entrepreneurship*, 14(1), 23-24.
- Nippa, M., Pidun, U., & Rubner, H. (2011). Corporate portfolio management: Appraising four decades of academic research. *Academy of Management Perspectives*, 25(4), 50-66.
- Phelps, C. (2010). A longitudinal study of the influence of alliance network structure and composition on firm exploratory innovation. *Academy of Management Journal*, 53(4), 890-913.
- Pollack, J. M., Rutherford, M. W., & Nagy, B. (2012). Preparedness and cognitive legitimacy as antecedents to new venture funding in televised business pitches. *Entrepreneurship Theory & Practice*, 36, 915-939.
- Rauh, J. D., & Sufi, A. (2012). Explaining corporate capital structure: Product markets, leases, and asset similarity. *Review of Finance*, 16, 115-155.
- Rosa, P. (1998). Entrepreneurial processes of business cluster formation and growth by 'habitual' entrepreneurs. *Entrepreneurship Theory & Practice*, 22(4), 43-61.
- Rutherford, M. W., Buller, P. F., & Stebbins, M. (2009). Ethical considerations of the legitimacy lie. *Entrepreneurship Theory and Practice*, 33, 949-964.
- Rutherford, M. W., Tocher, N., Pollack, J., & Coombes, S. M. T. (2016). Proposing a financial legitimacy threshold in emerging ventures. *Group & Organization Management*, 41(6), 751-785.
- Sandvig, J. C., & Coakley, L. (1998). Best practices in small firm diversification. *Business Horizons*, 41(3), 33-40.
- Simerly, R. L., & Li, M. (2000). Environmental dynamism, structure, and performance: a theoretical integration and an empirical test. *Strategic Management Journal*, 21, 31-49.
- Shleifer, A., & Vishny, R. (1989). Managerial entrenchment: The case of manager-specific investments. *Journal of Financial Economics*, 25, 123-139.
- Stam, W., & Elfring, T. (2008). Entrepreneurial orientation and new venture performance: The moderating role of intra- and extra-industry social capital. *Academy of Management Journal*, 51(1), 97-115.
- Stern, I., & Henderson, A.D. (2004). Within-business diversification in technology-intensive industries. *Strategic Management Journal*, 25, 487-505.

- Stulz, R. M. (1990). Managerial discretion and optimal financing policies. *Journal of Financial Economics*, 26, 3-27.
- Tornikoski, E. T., & Newbert, S. L. (2007). Exploring the determinants of organizational emergence: A legitimacy perspective. *Journal of Business Venturing*, 22, 311-335.
- Wang, H., & Barney, J. B. (2006). Employee incentives to make firm specific investments: implications for resource-based theories of corporate diversification. *Academy of Management Review*, 30, 466-476.
- Wiklund J., Baker, T., & Shepherd, D. (2010). The age-effect of financial indicators as buffers against the liability of newness. *Journal of Business Venturing*, 25(4), 423-437.
- Williamson, I. O. (2000). Employer legitimacy and recruitment in small businesses. *Entrepreneurship Theory and Practice*, 25(1), 27-43.
- Witt, P. (2004). Entrepreneurs' networks and the success of start-ups. *Entrepreneurship and Regional Development*, 16, 391-408.
- Wright, R. E., Palmer, J. C., & Perkins, D. (2004). Types of product innovations and small business performance in hostile and benign environments. *Journal of Small Business Strategy*, 15(2), 33-44.
- Zimmerman, M. A., & Zeitz, G. J. (2002). Beyond survival: Achieving new venture growth by building legitimacy. *Academy of Management Review*, 27, 414-431.