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DOES A RELIANCE ON THE GOVERNMENT FOR SALES HINDER NEW VENTURE PERFORMANCE? A RESOURCE DEPENDENCE PERSPECTIVE

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Abstract

A primary challenge faced by new organizations is that they experience a substantial power imbalance when engaging in exchange relationships—particularly with large established organizations. This study draws on resource dependence theory to explore ways in which new organizations can balance the power-dependence relationship when selling to the government. Consistent with resource dependence theory we find that dependence on the government for sales hinders organizational performance. However, intellectual property, product diversification, and government financial support act as counterbalance mechanisms that lessen the negative effects of dependence on the government for sales and organizational performance.

Introduction

The nature of the relationship between government and business has changed dramatically since the original work on resource dependence theory began (Emerson 1962; Pfeffer 1972a; Pfeffer, 1972b). In the 2012 fiscal year, the Federal Procurement Data System reported that almost 90 billion dollars of private procurement spending was contracted with small businesses. When dealing with the government, it is no secret that organizations have a distinct competitive disadvantage considering both the size differential between the two organizations as well as the legislative power of the government (Hillman, Withers, & Collins, 2009). For new organizations doing business with the government, the imbalance of the power-dependence relationship is exacerbated as new ventures possess comparatively little power and may be at the governments’ mercy relative to firm performance. This raises the question of how organizations can potentially balance the power and enhance profitability when conducting business with the government—and thus the focus of this study.

To examine this question, we take the view that resources from the external environment and strategic actions may serve as mechanisms which enhance the power of new organizations. Power imbalance among organizations consistently leads to negative ramifications for the power disadvantaged, thus creating a need to overcome the power imbalance (Casciaro & Piskorski, 2005). Constraint absorption, although shown to lessen the effects of power imbalance in the form of mergers or acquisitions (e.g. Xia & Li, 2013), is not an option when dealing with the government, creating a need for alternative power balancing options. However, despite the fact that more business are engaging in exchange with the government, there is little, if any, empirical research available that explores the performance implications of a dependence on the government.
for sales or mechanisms that may lessen these effects. We address these gaps in the literature by developing and testing a model of resources largely under the organization's control that include intellectual property, product diversification, and financial support from the government. We explore each as mechanisms for leverage that may lessen the negative effects of a dependence on the government for sales in new organizations.

We draw from several research streams suggesting a plurality of approaches may be useful in understanding how organizations can overcome power imbalance with the government. Research from the strategic management and economics literature has placed emphasis on key aspects of firm resources that impact the competitiveness of organizations. First, intellectual property may be a critical factor in the success and survival of organizations when dealing with the government. Emerson (1962) theorized that organizations can balance the power-dependence ratio by denying the exchange partner alternative sources for achieving their goals. Intellectual property (i.e. copyrights, patents, and trademarks) provides organizations with exclusive and legally defensible rights over original work of potential value. Organizations can increase their power over others by utilizing mechanisms to prevent other organizations from providing the same original work or good (e.g. Chang, 2013). By preventing others from duplicating the original work, or acquiring it from another source, organizations may gain leverage in negotiations, thereby making intellectual property an important consideration for organizational power (Fisher & Oberholzer-Gee, 2013).

Second, product diversification has been vigorously investigated within the strategic management literature in both the domestic and international contexts (Hitt, 1994; Luo, 2002) and refers to the expansion into products or services new to the firm. A substantial amount of conceptual and empirical work has focused on product diversification and suggests firm benefits of attracting new customers, partners, and improving aspects of performance (Hitt, 1994: Qian, 2002). Product diversification relative to doing business with the government is surprisingly under-researched despite (Pfeffer's, 1972b) theory that diversification may be a useful tool for managing external dependencies in such organizations. In any case, research suggests that product diversification benefits firm survival as it allows for the serving of a variety of industries or markets and reflects the exploiting of new product-market opportunities (Agarwal, 1997; Knudsen, Roman, & Ducharme, 2005). Consequently, we consider alternative product offerings as a way to alleviate dependence on a single product as important for balancing the power in firm—government exchange relationships.

In addition to intellectual property and product diversification, there has been increasing interest in the notion that organizations with political relationships may have an advantage in terms of the frequency of exchanges with the government (Hillman et al., 2009; Hillman, 2005). However, it is not clear how varying types of relationships with the government impact exchanges or if they are beneficial in terms of financial performance. One important aspect of the firm—government relationship that has not been adequately explored deals with the impact of government financial support. In a traditional dependent relationship, an organization may make an investment in another organization in order to create incentives for performance of the dyad rather than exploitation of the more dependent firm (Pfeffer & Salancik, 1978). This mechanism creates a symbiotic or mutual dependent relationship where both organizations stand to benefit from working collectively, as opposed to an adversarial relationship whereby one organization benefits at the expense of another (Casciaro & Piskorski, 2005). We consider government financial support as a potential counterbalance mechanism for any adversarial effects of government dependence.
Our study contributes to the literature in a number of ways. First, Pfeffer's (1972b) seminal work indicates that almost all businesses are at a distinct power disadvantage when dealing with the government but little empirical research has tested his theory. We do so and contribute to the research on resource dependence theory by developing and testing a model of dependence on the government for sales and financial performance in new ventures. Second, we explore specific counterbalancing mechanisms comprised of intellectual property, product diversification, and governmental financial support that may lessen the negative performance implications when doing business with the government. Third, we do so with a large longitudinal study of new organizations, saddled with the liabilities of newness, thereby demonstrating how organizations may effectively leverage their resources and take strategic actions to overcome inherent competitive disadvantages with the government.

In the next section, we review the literature surrounding power and resource dependence in organizations. We then present a theoretical argument for specific mechanisms that may balance the power and enhance profitability when conducting business with the government. Hypotheses are put forward and we report the methods and results of our empirical undertaking. A discussion follows and the paper concludes with implications for research.

**Literature Review And Hypotheses**

**Power and Dependence in Organizations**

Emerson (1962) provided some initial guidance on resource dependence when he noted that the dependence of one actor in a power-dependence relationship is equal to the power of the other actor. This is important to the current study because it is clear that organizations are at a power disadvantage when dealing with the government. Dealing with the government produces a power disadvantage primarily due to the fact that it is difficult for organizations to reduce uncertainty and dependence when dealing with the government because of its size and legislative power (Hillman et al., 2009). Regulatory power can also have a large effect on firms, as government agencies have the ability to write rules outlining how certain businesses and industries must operate (Hadini & Schuler, 2013). Organizations seek to increase their power because increasing power enables the dominant actor to demand a greater share of the exchange surplus between actors (Casciaro & Piskorski, 2005).

Given the potential for a power imbalance, it is important to consider the potential effects of being power disadvantaged on the organization. The existing literature strongly suggests that power imbalance can negatively impact the disadvantaged firm's performance and likelihood of survival (Gulati & Stych, 2007). For example, Dore (1983) discovered that asymmetrically disadvantaged suppliers are likely to be squeezed in terms of profit in economically difficult times. Given that budgetary issues abound in the government sector, it seems logical that this issue would surface on a regular basis. In addition, Blau (1964) suggests that the power advantaged actor will position itself to capture greater value in the exchange relationship which is often at the expense of the power disadvantaged actor. This assertion is supported by numerous others who address value appropriation and suggest that the increased performance of the stronger actor must come at the expense of the weaker actor (Cook, 1977; Katila, Rosenberger, & Eisenhardt, 2008). Therefore, it is important to consider potential power balancing mechanisms that can help the disadvantaged actor to gain power and leverage in the relationship. Several attempts were
made in the past to address this issue with varying degrees of success. For example, Thompson (1967) suggested that organizations can engage in internal adaptation via buffering operations such as maintaining inventory. Others, such as Casciaro and Piskorski (2005), have suggested that constraint absorption is a useful tool for alleviating asymmetric interdependence. More recently, meta-analytic evidence has provided support for the effectiveness of various power balancing mechanisms such as autonomy and legitimacy (Drees & Heugens, 2013). However, when dealing with the government, it remains to be seen as to whether these strategies will prove effective for reducing the negative effect of dependence asymmetry on performance. That being said, it is clear that power imbalance leads to negative ramifications for the power disadvantaged actor and that organizations need solutions for dealing with power imbalance (Casciaro & Piskorski, 2005).

Hand in hand with the contributions from Emerson (1962), Pfeffer's (1972a) resource dependence theory addresses the power-dependence issue by suggesting that organizations seek to reduce interdependence between organizations by gathering resources. Power is the central factor in resource dependence and it refers to the control over vital resources (Ulrich & Barney, 1984). The primary goal of organizations, according to resource dependence theory, is to increase their power over others (Hillman et al., 2009). Increasing power ultimately aids in the survival of the organization, which has been demonstrated longitudinally and among several industry settings (Pfeffer, 2013).

In his original theory, Pfeffer (1972a) focused on interdependence as important when considering the power-dependence relationship between two actors. Casciaro and Piskorski (2005) expanded upon this view and provided empirical evidence that interdependence is actually composed of both power imbalance and mutual dependence. In terms of power imbalance, the less powerful member in the dyad will attempt to restructure its dependency to gain power in the relationship (Katila et al., 2008). On the other hand, mutual dependence refers to the motivation of both parties to continue the relationship (Casciaro & Piskorski, 2005). One option for dealing with this power imbalance is through constraint absorption. Constraint absorption refers to the ability to gain the right to control resources and is typically accomplished through permanent ties such as mergers and acquisitions or through long-term contracts such as joint ventures (Casciaro & Piskorski, 2005). In most situations, constraint absorption is a viable option for reducing dependence as organizations can acquire or partner with other organizations to reduce or eliminate a power imbalance when dealing with other organizations (e.g. Xia & Li, 2013). As an example of constrain absorption, firms have been shown to use mergers and acquisitions to reduce dependency between buyers and sellers (Galbraith & Stiles, 1984; Meyer, Estrin, Bhaumik, & Peng, 2009), manage aspects of the environment (Hitt & Tyler, 1991; Heeley, King, & Colvin, 2006), and for internal purposes (Campling & Michelson, 1998; Santos & Eisenhardt, 2005). In addition, joint ventures and other alliances are also used to acquire resources and reduce dependence (Hallen, Katila, & Rosenberger, in press). Pfeffer and Salancik (1978) proposed that boards of directors could also help manage dependency by providing advice and counsel, access to information about the environment, access to resources, and legitimacy. These propositions have also been supported empirically in various settings (e.g., Kor & Misangyi, 2008; Lester, Hillman, Zardkoohi, & Cannella, 2008). However, organizations are limited in their constraint absorption options when dealing with the government due to the fact that the government cannot be acquired nor can it enter into a traditional joint venture. For this reason, it is important for organizations to find alternatives to reduce the power imbalance when dealing with the government.
A few studies do provide insights from the firm—government relationship setting. For example, Meznar and Nigh (1995) demonstrate that firms heavily dependent on the government are more likely to engage in political activity. Further, Mullery, Brenner, and Perrin (1995) provide empirical evidence to suggest that organizational leaders make political contributions in attempt to balance the power-dependence relationship. However, this research steam from the government context investigates dependence in the form of the regulatory and legislative power that the government may exercise, and not situations where a firm is conducting business with the government. The nature of the relationships should logically be different for firms who are simply regulated by the government versus firms who are conducting business directly with the government. The latter circumstance has been largely ignored in the literature, despite Pfeffer’s (1972b) emphasis in his original work. Thus we turn our attention to potential balancing mechanisms that increase organizational power and decrease dependence when conducting business with the government.

**Government Dependence and Firm Performance**

Research has shown that businesses in a disadvantaged power relationship are expected to experience lower financial performance due to this constraint. For example, Dore (1983) showed that dependent suppliers in the automotive industry were pressured to reduce profits. Kim, Hoskisson, and Wan (2004) found that firms with a power advantage were able to exert their will over weaker firms and focus on growth, while the weaker firms were forced to focus on maintaining profitability. In his landmark study, Pfeffer (1972a) argued that businesses do not have the power to bargain when selling products to the government because the government is much larger and thus maintains a power relationship over even the largest business.

The typical strategies for managing dependence are unavailable when dealing with the government with the exception of avoidance. Firms typically have many competitors and a significant size disadvantage compared to the government, giving them little bargaining power when attempting to win a government contract. In addition, government contracts are often awarded to the lowest bidder when competition is present, placing further pressure on firm performance. This lack of bargaining power is likely to lead to lower financial performance, as businesses must accept the terms offered by the government in most agreements (e.g. Gulati & Stych, 2007). These contracts may or may not be lucrative, but even in instances where they are lucrative, a company that is highly dependent on the government for its sales could eventually see abrupt lower performance if contracts are not renewed. A non-renewal could arise from political change in the form of a new administration, a competitor winning the business, or a change in public policy (Baumgartner & Jones, 2010). A business dependent on sales of products or services to the government may have few market options for other customers, leading to lower performance. Pfeffer and Salancik (1978) reviewed a variety of studies examining firms with sales to the government and found that in hypothetical situations firms were willing to invest in areas the government requested and receive lower returns when the percentage of their sales to the government was high (Ahoroni, 1971). Firms were also more willing to support affirmative action hiring practices that the government encouraged when they were highly visible to the public (Salancik, 1976). This evidence suggests that the government has power over the firms it conducts business with and that those firms may be willing to accept lower financial performance. Thus:

*Hypothesis 1: Dependence on the government for sales will be negatively related to firm performance.*
Intellectual Property and Dependency

Resource dependence theory puts emphasis on inimitable resources as a potential prescription for dealing with dependency and thus we turn our attention to intellectual property. Organizations that possess intellectual property, in the form of patentable technologies, copyrighted outputs such as new designs or in the form of trademarks, have options when considering how to leverage their intellectual property. These options may include producing and selling the good, selling the intellectual property, or licensing the intellectual property for exploitation to another organization. The rights to control intellectual assets represents a control of knowledge, which has strategic ramifications in an exchange relationship (Leiponen, 2008). Much of the research that has investigated intellectual property in the strategy literature draw from the resource based view. Resources serve as a competitive advantage for a firm when they are simultaneously valuable, rare costly to imitate and substitute (Priem and Butler, 2001). Of particular note here, intellectual property rights enable organizations to generate monopolistic rents over specific intellectual property for a period of time and provide defensible rights over the original work. While intellectual property represents a potentially valuable and rare resource, it is vital to note that these resources also reflect inimitable and often non-substitutable goods. Competitive rivals cannot use an invention without permission, which lessens the customers bargaining power as duplicate product offerings are unavailable (Hsu & Ziedonis, 2013).

Research from the German machine tool industry supports these arguments as intellectual property in terms of patents had a positive impact on a firm's market position (Ernst, 2001). A number of studies from the biotechnology setting have shown that intellectual property provide advantages in terms of attracting financing as well as partners to support commercialization activities (Baum and Silverman, 2004). Although little research on intellectual property is available from the firm—government exchange setting, Boeing, Lockheed Martin, and Halliburton have each benefited in terms of financial performance from government contracts. Antidotal evidence suggests they leveraged inimitable resources to produce products including military jets and specialized large scale infrastructure projects in war zones that few, if any, other organizations provide.

As supported above, it appears that intellectual property represents an important counterbalancing mechanism when organizations are dependent upon the government for sales. Intellectual property is an inimitable resource that prevents others from duplicating the original work thus limiting the governments’ ability to acquire duplicative goods from rivals. Although organizations are at a competitive disadvantage when dealing with the government, intellectual property provides a mechanism for the power imbalance to be lessened. Thus:

Hypothesis 2: Intellectual property will moderate the relationship between dependence on the government for sales and organizational performance, such that intellectual property will lessen the negative relationship.

Product Diversification and Dependency

Another potential power-balancing mechanism is diversification (Pfeffer, 1972a). However, little has been done to explore diversification as a potential means of alleviating impacts of dependence on the government despite this being a prime tenant of Pfeffer's original work. He
postulated that firms doing business with the government would diversify their business interests in order to reduce interdependence. Other scholars have extended this reasoning to suggest that organizations can diversify in a variety of ways to proportionally reduce its dependence on a given organization. For example, firms can use product diversification to reduce their dependence on the sale of one particular product or service (Anil, Yiğit, & Canel, 2013). If an organization only makes one type of product and sells most of their product to the government, it may be difficult for the firm to survive if the contract were cancelled or if the contract were substantively modified. Lacking product diversification may hinder the organizations power when negotiating with the government because governmental decision makers know that the organization has fewer options for distributing their offering. By diversifying and selling multiple products, an organization can increase the likelihood of attracting new customers and pursuing multiple contracts—thus leveraging diversification to reduce risk and uncertainty.

Beginning with the theorizing of Rumelt (1982), a substantial amount of empirical work has considered diversification and suggests that indeed product diversification is beneficial up to point. (e.g., Hitt, 1994; Qian, 2002; Zahavi & Lavie, 2013). However, product diversification when doing business with the government is surprisingly under-researched. Among the few studies that have examined the performance implications of government dependence is Gort (1962) that found there was a significant negative correlation between the percentage of business done with the government and business done within the main industrial category in which the business operated. This gives credence to Pfeffer’s (1972a) assertion that businesses will seek to diversify in order to balance the dependent relationship with government.

A business whose primary customer is the government may experience lower financial performance due to the dependent nature of the relationship. Considering the reviewed literature on product diversification, we take the view that alternative product offerings will alleviate dependence on a single product or customer and balance the power in the firm—government exchange relationship. A business with diversified products or services can lessen dependence and thus lessen the effect on financial performance. Thus:

Hypothesis 3: Product diversification will moderate the relationship between dependence on the government for sales and organizational performance, such that product diversification will lessen the negative relationship.

Government Financial Support and Dependency

An aspect of the firm—government dependence relationship that has not been studied deals with the government support of firms through various financing programs. In a traditional dependent relationship, a firm may take an ownership stake in another firm in order to create incentives for performance of the dyad rather than exploitation of the more dependent firm (Pfeffer & Salancik, 1978). This mechanism creates a symbiotic or mutual dependent relationship where both firms stand to benefit from working together, as opposed to an adversarial relationship where one firm benefits at the expense of another. This study proposes that firms can create a similar relationship with the government by accepting financial support from the government. In this scenario, the firm is dependent on the government for needed sales, while the government is now dependent on the firm for repayment of the loan. If the firm is unable to repay the loan they are likely to go bankrupt, causing financial harm to the firm’s owners, and the government is
unlikely to be repaid. While these financial losses may not be catastrophic to a large organization such as the government, the failure of the firm may attract attention from the media and limit the government’s future ability to engage in these economic-supporting activities or limit the potential future strategic investments available to the government. Consequently, both the government and the organization stand to benefit, and reduce hazard, by working together creating a mutual dependence (Casciaro and Piskorski, 2005) whereby the motivation of both parties is to continue the relationship. Although organizations are at a competitive disadvantage when dealing with the government, we assert that financial support from the government provides a mechanism for the power imbalance to be lessened. Thus:

**Hypothesis 4:** Government financial support will moderate the relationship between dependence on the government for sales and organizational performance, such that government financial support will lessen the negative relationship.

**METHODS**

**Data**

The Kaufman Firm Survey (KFS) database is used to test all hypotheses. The survey began in 2004 and has conducted annual updates through 2011. A total of 4,928 firms were surveyed, creating a robust panel dataset with which to conduct our analysis. All firms surveyed in 2004 were new ventures in the United States. To ensure that only new ventures were surveyed, the Dun & Bradstreet list of new businesses database was used to locate and then sample firms that began operations in 2004. The confidential version of the dataset provided by the National Opinion Research Center (NORC) was used to obtain information about company profits. Correlations are reported in Table 1.

**Variables**

*Dependent Variable.* Firm Performance was measured as the self-reported profit or loss earned by a firm in a given year. Self-reported measures of profit have been shown to be valid as objective indicators of performance in small and medium firms where publicly available data is not available (e.g., Ndofor & Priem, 2011; Zhao et al, 2013; Simsek & Heavey, 2011). Profits have also been shown to be a key indicator of success for entrepreneurs (Bradley, McMullen, Artz, & Simiyu, 2012; Lerner & Haber, 2001)

*Moderators and Independent Variables.* Sales to government was measured as the percentage of total sales that the firm made to the government. Due to the extreme skewness of sales to government, a log transformation was applied to create a normal distribution (Sharfman & Hart, 2007). Government financial support was captured two ways. First, as the total principal amount of government loans obtained by the firm. Second, a dummy variable was used to identify whether or not the firm had received a government loan repayment guarantee. The second moderator, intellectual property, was measured as the number of patents, trademarks, and copyrights that a firm owns. The final moderator, diversification, was indicated by a question in the Kauffman Firm Survey which asked respondents if they had launched a new product or service since the last survey. A dummy variable was used to indicate whether or not a new product or service was launched.
Control Variables. Several traditional human capital (Becker, 1964) control variables were also included in the model. First, the level of education obtained by the primary owner was coded as trade school/some college, or possessing a university degree. This approach follows another recent study using the KFS (Robb & Watson, 2012). Second, the number of years of industry experience of the primary owner was included. Industry effects were controlled for by using the 3 digit NAICS code (Cassar, 2014). Firm size was controlled for by using the number of employees (Robb & Watson, 2012).

Results

Table 2 contains results of the main effect and moderating hypotheses 1-4 that determine firm profit. Multilevel mixed effects linear regression was used to test the hypothesized relationships. A multilevel approach in this analysis allows for the testing of groups effects. In this case 3 digit NAICS industry codes were used to designate industries. The Likelihood Ratio $\chi^2$ result (0.00) allows us to reject the null hypothesis that there are no group effects for industry. Consistent with hypothesis 1, the percentage of sales that a firm has to the government has a negative relationship ($B = -0.106, \ p < .01$). Consistent with hypothesis 2, the ownership of intellectual property positively moderates the relationship between sales to the government and performance ($B = .002, \ p < .01$). A positive and significant effect was found for the moderating effect of diversification between sales to the government and performance ($B = 0.115, \ p < .01$), supporting hypotheses 3. The results for hypothesis 4 are mixed. Obtaining loans from the government does improve firm performance ($B = 4.15, \ p < .05$), but obtaining a loan guarantee actually produces a negative relationship with firm performance ($B = -0.15, \ p < .01$). One possible explanation for this unexpected relationship may be the nature of the loan guarantee. If the loan guarantee protects the business owner from personal financial harm in the case of firm failure, he or she may be less likely to perform well individually. This could then lead to lower firm performance due to lack of effort.

Discussion

Theoretical Contributions

Evidence supporting the hypotheses outlined here contributes to the literature in several ways. First, the results provide additional support to the often-proposed but seldom tested idea that firms in a disadvantaged power relationship will experience lower performance due to this disadvantage. Second, in the context of firm/government relationships the presence of a symbiotic relationship between a firm and government is, to the best of our knowledge, the first instance of a symbiotic relationship taking place in this way. Next, a successful test of diversification as a means of dealing with high dependence on the government advances Pfeffer’s (1972b) original postulation from a prediction of what firms will and should do, to proof that firms can be financially successful when doing so. Fourth, the intellectual property moderator highlights a unique context where the massive size of the government cannot be used as an advantage over a much smaller firm. As a whole, these moderators suggest additional mechanisms that firms may utilize to balance a government dependent relationship.

More generally, this study contributes to the literature on resource dependence theory (Pfeffer, 1972b) by examining dependence on government in the context of doing business with the government, as opposed to the more common approach of government regulation (Hadini...
& Schuler, 2013). We further contribute to resource dependence theory by identifying possible mechanisms for balancing government dependence that are generally internal to the firm, as opposed to mechanisms requiring outside relationships such as political action (Mezner & Nigh, 1995) or appointing former politicians to the board of directors (Hillman, 2005).

Practical Implications

The main implication that entrepreneurs and managers can take from this study is that it may not necessarily be the case that having the government as a customer will lead to lower firm performance. If the product being sold to the government is protected by intellectual property, firms may have a monopoly-like status that provides leverage in negotiations or other discretion over the selling price of the product. Additionally, product diversification can lead to increased performance. Diversification creates additional products from which performance can improve, but also creates additional opportunities for firms. With these opportunities a firm may have more discretion when choosing to enter into a government contract or otherwise set the price of a product that is being sold to the government. Finally, if the government is a customer of a firm and the firm also obtains financing from the government, both parties may be interested in the success of the firm.

Limitations

As with any study, this one is not without limitations. First, all types of intellectual property were considered jointly when evaluating the moderating effect on firm performance. It is unknown if one particular type of intellectual property leads to greater performance than others, or if perhaps the types work together to gain leverage over the government. Regardless, each type of intellectual property should represent a resource that is rare, valuable, costly to imitate, and substitute (Priem & Butler, 2001). Any finding that separates the effects of one type of intellectual property from another should not change the overall theoretical findings presented here. Second, the moderating effect of loans from the government could be masking other effects. For example, we cannot say for certain that performance is increased due to the symbiotic relationship between a firm and the government and not simply due to the firm having access to what is likely favorable debt financing that can be used to improve firm performance. Future research should further investigate this phenomenon. Finally, the use of profit as a dependent variable may overlook other goals of a firm that could be met without achieving a large profit. Individuals may become entrepreneurs for status, time flexibility, or other psychological reasons that do not include profit as a primary goal (Henderson, 2002). It is also possible that a firm may be targeting growth and thus be focused on increasing sales and not necessarily profit.

Conclusion

In this study we investigated the power dependent relationship between individual companies and the government through the resource dependence lens. Pfeffer (1972a) argued that businesses do not have the power to bargain when selling products to the government because the government is much larger and thus maintains a power relationship over even the largest business. With the exception of avoidance, none of the typical strategies for managing dependence are available and thus this study used RDT to address three power balancing mechanisms that can help organizations survive when conducting business with the government. These three mechanisms are product diversification, government financial support, and intellectual property.
One power balancing mechanism that this study investigated is diversification. The benefits of and strategy behind diversification have been around for years, but this study addressed the idea of diversification being used as a way to reduce the dependence on the government. Next, we extended the literature on intellectual property by specifically focusing on patents, trademarks, and copyrights as power balancing operations that can help organizations maintain profitability when conducting business with the government. When an organization obtains a patent, trademark, or copyright, they are able to increase their performance by simulating a monopoly status on that product. The last mechanism studied, government financial support, provides a unique method for firms to reduce dependence on government. Where the previous two mechanisms involved firm action directly related to operations, this mechanism allows firms to create a symbiotic relationship whereby the government has a vested interest in the firm’s success. Finally, it was shown that despite the negative performance relationship that arises from dealing with the government, firm survival is more likely. This suggests that firms engaging the government as a customer are more likely to persist, and if additional advantages can be gained through the aforementioned balancing mechanisms, conducting business with the government can be beneficial rather than harmful to new firms.

The findings and implications presented here also suggest avenues for future research. The context of this study revolves around new firms. Future research could examine the proposed relationships in the context of larger and more established organizations that do not have a liability of newness or possess other strengths that may contribute to balancing dependence on government. Another possible avenue for research involves the survival rates of new firms that are dependent on the government. While it is logical that lower firm performance would lead to lower survival rates, entrepreneurs have been shown to persist in spite of sub-optimal economic performance (Gimeno, Folta, Cooper, & Woo 1997; Holland & Shepherd, 2011). It is plausible that the government may offer sales that are steady enough to help a firm survive, if not thrive.

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References


### Table 1. Correlation Matrix

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<td>2. Percent of sales to government</td>
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<td>7. Owner Work Exp.</td>
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<td>8. Loans from Gov’t</td>
<td>33.01</td>
<td>9.97</td>
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<tr>
<td>9. Gov’t Loan Guarantee</td>
<td>1.02</td>
<td>1.15</td>
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<tr>
<td>10. Intellectual Property</td>
<td>2.17</td>
<td>14.65</td>
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<tr>
<td>11. New Product launch</td>
<td>2.41</td>
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Notes: * p < .05. ** p < .01

### Table 2. Multilevel Regression Results for Dependent Variable Profit*

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<th></th>
<th>Model 1</th>
<th></th>
<th>95% C. L.</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>95% C. L.</th>
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<tbody>
<tr>
<td>Percentage of Sales to Government</td>
<td>-0.016** (0.011)</td>
<td>-1.28</td>
<td>-0.85</td>
<td>-0.102** (0.19)</td>
<td>-1.38</td>
<td>-0.066</td>
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<tr>
<td>No. of employees</td>
<td>0.033** (0.001)</td>
<td>0.01</td>
<td>0.03</td>
<td>0.031** (0.001)</td>
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<td>0.034</td>
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<tr>
<td>Other Business Owner</td>
<td>0.028** (0.012)</td>
<td>0.05</td>
<td>0.05</td>
<td>0.102** (0.020)</td>
<td>0.080</td>
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<td>College Degree</td>
<td>-0.034 (0.031)</td>
<td>-0.096</td>
<td>0.027</td>
<td>-0.04 (0.052)</td>
<td>-0.105</td>
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<td>High School Diploma</td>
<td>-0.12* (0.057)</td>
<td>-0.228</td>
<td>-0.004</td>
<td>-0.056 (0.097)</td>
<td>-0.246</td>
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<tr>
<td>Industry Work Experience</td>
<td>-0.01* (0.001)</td>
<td>-0.10</td>
<td>-0.005</td>
<td>-0.120** (0.002)</td>
<td>-0.164</td>
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<td>Intellectual Property * Percentage of Sales to Government</td>
<td>0.002** (0.001)</td>
<td>0.0004</td>
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<td>New Product Launch * Percentage of Sales to Government</td>
<td>0.115** (0.019)</td>
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<tr>
<td>Government Loan Amount * Percentage of Sales to Government</td>
<td>4.15*** (0.00)</td>
<td>7.61</td>
<td>8.22***</td>
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<tr>
<td>Government Loan Guarantee * Percentage of Sales to Government</td>
<td>-0.150 (0.039)</td>
<td>-0.228</td>
<td>-0.073</td>
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<td>Constant</td>
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<td>10.37** (0.136)</td>
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<td>Random Effects Parameters</td>
<td>0.85 (0.087)</td>
<td>0.699</td>
<td>1.04</td>
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<td>Residual</td>
<td>1.66 (0.01)</td>
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<td>1.61 (0.016)</td>
<td>1.58</td>
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</tbody>
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Notes: a log transformed variable; * p < .05, ** p < .01