

RESOURCE CONFIGURATION IN FAMILY FIRMS: LINKING RESOURCES, STRATEGIC PLANNING AND ENVIRONMENTAL DYNAMISM TO PERFORMANCE

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ABSTRACT

We apply the resource-based view (RBV) to the study of family firms by investigating how family specific (altruism) and firm specific (technology) resources contribute to performance. We then examine how the impact of these resources is moderated by strategic planning and environmental dynamism. Our findings suggest that family firms can benefit from emphasizing the positive aspects of kinship and from developing technological assets. In addition, we found a heightened importance of altruism in dynamic environments, and that strategic planning increased in importance for those family firms that lack technological resources.

INTRODUCTION

Resource management is critical to managing a family firm and gaining a competitive advantage (Chrisman, Chua & Zahra, 2003). In particular, a family firm's culture can act as an important strategic resource that can lead to a distinct advantage (Zahra, Hayton & Salvato, 2004). While family firms are often criticized for failing to seek new ventures (Cabrera-Suarez, Saa-Perez & Almeida, 2001), being conservative and resisting change (Morris, 1998), those family firms that are innovative and possess technological resources may increase their distinctiveness. In addition, while many family firms are plagued by conflict that can devastate their performance, other family firms possess harmonious cultures that increase cooperation and commitment (Zahra et al., 2004). Indeed, effective relationships within a family firm can be a unique resource (Kellermanns & Eddleston, 2004). Therefore, due to the interaction between the family and the business, a family firm's competitive advantage may come from resources derived from the business's technological capabilities or resources derived from effective family relationships.

However, possessing resources may not be enough to achieve a competitive advantage. Strategic planning and the environment may affect the degree to which resources are able to contribute to performance. Family firms must manage their resources and plan for the future in order to succeed in today's competitive landscape (Sirmon & Hitt, 2003). Leveraging resources requires managers to participate in strategic planning aimed at creating a distinct advantage (McGrath & MacMillan, 2000). Furthermore, while resources are the essential building blocks of gaining a competitive advantage, they must be leveraged to effectively pursue environmental opportunities (Chrisman, et al., 2003). Certain resources may be essential in a dynamic environment if a firm is to perform well and protect its competitive advantage (Sirmon & Hitt, 2003). Family firms operating in dynamic environments need to manage their resources so as to exploit opportunities present in uncertain markets (Shane & Venkataraman, 2002). As such, in line with recent research on RBV, strategic planning and the environment must be considered in order to fully understand how a family firm's resources contribute to its performance (Sirmon & Hitt, 2003).

Our paper examines the affect of two distinct and potentially important resources on family firm performance. First, because it has been suggested that innovation may be an important resource that distinguishes family firms and contributes to their competitive advantage (Zahra et al., 2004)

we examine how technological resources impact a family firm's performance. Second, given that positive and effective family relationships have been argued to be an important source of competitive advantage that is unique to family firms (Kellermanns & Eddleston, 2004), we investigate how altruism contributes to family firm performance. In line with recent research on RBV (i.e. Cabrera-Suarez et al., 2001; Chrisman et al., 2003; Sirmon & Hitt, 2003), we also consider the role that strategic planning and environmental dynamism play in shaping how these distinct resources affect a family firm's performance.

THE RESOURCE-BASED VIEW OF THE FIRM

According to RBV, firms can develop unique characteristics that allow them to gain a sustainable competitive advantage, thus positively affecting their performance. These firm-specific assets can be both tangible and intangible, but the key is that they are not available to all firms in the industry. Barney (1991) described four characteristics of these firm-specific assets: that they need to be valuable, rare, not easy to imitate, and non-substitutable. A further element of RBV is that resources alone do not confer a competitive advantage. Firms must also allocate these resources for strategic activities, deploy them effectively to obtain a sustainable competitive advantage and accomplish strategic objectives. Therefore, in order to succeed, firms must develop resources that cannot be easily imitated and are firm-specific, embedded in the organization and non-transferable. (Makadok, 2001).

Technology as a Firm-Specific Resource

Family firms are often criticized for failing to invest in new ventures (Cabrera-Suarez et al., 2001), avoiding risk and resisting change (Morris, 1998). Many family firms do not plan for the future or invest in technological capabilities. They become fixated on maintaining the status quo and fail to invest in technology thereby limiting their growth. In contrast, it has been argued that family firms need to innovate and pursue entrepreneurial activities in order to increase their distinctiveness and enhance their profitability (Zahra et al., 2004). By developing technology and continuously renewing that technology, a firm can create an important strategic resource that can lead to a sustainable competitive advantage, thereby enhancing its growth and profitability.

Hypothesis 1: Technological resources are positively related to family firm performance.

The Family as a Resource

While most research focuses on how family relationships can negatively impact firm performance (Kellermanns & Eddleston, 2004), recently it has been argued that "familiness" can be a source of competitive advantage for family firms (Sirmon & Hitt, 2003). In particular, altruism may explain why in some family firms members are able to successfully work together and run a business while in others, family members are laden with animosity that deteriorates performance (Kellermanns & Eddleston, 2004). As such, high levels of altruism within a family firm may constitute as an important source of competitive advantage. Altruistic family firm members can be seen as stewards rather than as agents of the firm. In line with stewardship theory (Davis, Schoorman & Donaldson, 1997), altruistic families are characterized as possessing collectivistic orientations that encourage family members to exercise self-restraint and to consider the effect of their actions on the firm (Kellermanns & Eddleston, 2004). Indeed, research suggests that the agency costs of family firms tend to be lower than the agency costs of non-family firms (Chrisman et al., 2004; Sirmon & Hitt, 2003).

Hypothesis 2: Altruism is positively related to family firm performance.

The Need for Strategic Planning

While resources are important to a firm's performance, according to RBV, whether an organization gains a competitive advantage and the associated returns depends on the strategic planning used to leverage those resources (Chrisman et al., 2003; McGrath & MacMillan, 2000). Therefore, a family firm's level of strategic planning may impact the degree to which altruism and technological resources affect performance. Specifically, strategic planning may heighten the positive effects of technological resources on family firm performance because the long-term nature of family firms allows them to strategically plan the dedication of resources required for innovation and risk taking (Zahra et al., 2004). In addition, research suggests that for family firms to prosper from their innovative capacity they must invest in formal strategic processes (McCann, Leon-Guerrero & Haley, 2001).

Concerning altruism, to create a sustainable competitive advantage, "familiness" must be properly assessed and managed in a family business (Cabrera-Suarez, et al., 2001). When family firms place noneconomic goals, like avoiding family conflict or creating jobs for family members, ahead of economic considerations, performance can be compromised (Chrisman, et al., 2003). In addition, because family employees often work for a firm not because of their qualifications, but because of their family status (Schulze, Lubatikin & Dino, 2003), the discussion of each family member's abilities and how they can be efficiently and effectively deployed is of the utmost importance (Kellermanns & Eddleston, 2004). Employees of family businesses need to be motivated to participate in strategic planning and implement strategies if the firm is to benefit from its resources (Sirmon & Hitt, 2003). As such, greater strategic planning may amplify the positive effects of altruism on family firm performance.

Hypothesis 3: Strategic planning moderates the relationship between (a) technological resources and (b) altruism and family firm performance. Specifically, higher levels of strategic planning enhance the positive relationship between (a) technological resources and (b) altruism.

Environmental Dynamism: The Impact of a Turbulent Environment

Environmental dynamism may affect the extent to which resources contribute to a firm's performance. Specifically, family firms operating in dynamic environments may need greater resources in order to exploit opportunities present in uncertain markets (Shane & Venkataraman, 2002). Concerning technological resources, venturing activities and innovation may be particularly important to surviving in a highly dynamic environment (Sirmon & Hitt, 2003). A turbulent environment, with fast-changing unpredictable markets, is complex, threatening and risky. There is less time to react, resource needs can change quickly, and technologies underlying products can become suddenly obsolete. Entrepreneurial behavior may fit well within such dynamic environments, particularly in technology intensive industries (Zahra & Bogner, 1999).

Furthermore, in uncertain, dynamic environments, a stewardship philosophy toward management, which encourages a collectivistic, trustworthy and pro-organizational culture, is argued to be most effective (Davis et al., 1997). Family firms that encourage cooperation and collaboration may be best able to respond to environmental changes (Zahra, et al., 2004). This is because in order to prosper in an uncertain and turbulent environment, trust and shared responsibility is essential (Davis et al., 1997). This leads to the following hypothesis:

Hypothesis 4: Environmental dynamism moderates the relationship between (a) technological resources and (b) altruism and family firm performance. Specifically, higher degrees of environmental dynamism enhance the positive relationship between (a) technological resources and (b) altruism.

METHOD

Sample. Data for the study were collected using a questionnaire survey. A mailing list of 232 family businesses was obtained from the family business centers at two universities. We sought multiple respondents from each family firm because consensus among several stakeholders in the family firm would aid in the representativeness of our results to family businesses. There were 126 questionnaires returned, resulting in 74 family firms and a 32% response rate. The employment size for non-family employees of these firms ranged from 2 to 545 with an average size of 97 and a median of 44.

Measures. All constructs were measured on a 7-point Likert scale anchored by “strongly disagree” to “strongly agree”, unless otherwise noted in the subsequent section. Alphas ranged from .83 to .90. We measured altruism among family members by adapting four items from a scale developed by Becker and Vance (1993). In order to assess the level of technological resources within a family firm, we used three items modified from scales developed by Miller & Barbosa (1983) and Zahra (1996). We measured strategic planning in family firms by modifying three items from a scale by Gould (1979). Environmental dynamism was captured by utilizing four scale items used by Zahra (1996). Performance was assessed with eight questions regarding growth, returns and profitability. In addition, we controlled for firm size.

RESULTS

The hypotheses proposed in the research model were tested using multiple regression analysis. Results are presented in Table 1. In model one, the control for size was entered, however, it was not significantly related to performance. To test Hypotheses 1 and 2, we entered both independent variables in the second model. A significant change in R^2 was observed ($\Delta R^2 = .20$, $p < .001$) and technological resources ($\beta = 0.25$, $p < .05$) and altruism ($\beta = 0.34$, $p < .01$) were found to have a significant positive impact on performance, supporting Hypotheses 1 and 2.

In order to test the suggested moderation effects, we first entered the moderators independently in Model 3 and then entered the four interaction terms in Model 4. A significant change in R^2 was produced ($\Delta R^2 = .12$, $p < .05$). Hypothesis 3 was partly supported; whereas strategic planning did not affect the relationship between altruism and performance, a significant interaction was observed between strategic planning and technological resources ($\beta = 0.45$, $p < .01$). Hypothesis 4 was also partly supported; whereas environmental dynamism did not moderate the relationship between technological resources and performance, a significant interaction was observed between environmental dynamism and altruism ($\beta = 0.22$, $p < .05$). To facilitate interpretation, the two significant interactions were plotted in Figure 2 and Figure 3. The interaction between strategic planning and technological resources in Figure 2 shows that when there is little strategic planning, technological resources become increasingly important to family firm performance. However, when there is much strategic planning, the level of technological resources has no significant impact on family firm performance. The second significant interaction effect between environmental dynamism and altruism is displayed in Figure 3. The interaction shows that in

stable environments, altruism has little effect on performance. However, when the environment is dynamic, a higher level of altruism is associated with stronger family firm performance.

DISCUSSION AND IMPLICATIONS FOR FUTURE RESEARCH

Our study contributes to the family firm literature in many ways. Kellermanns and Eddleston (2004) argued an indirect positive performance effect of altruism in family firms, however other research portrayed altruism as detrimental to family firms (Schulze, et al., 2003). Our study is the first empirical investigation that begins to resolve these opposing arguments. Whereas altruism might lead to non-zero agency costs in family firms (Schulze et al., 2003), our study suggests that these costs are still lower than in non-family firms. This notion is further supported by our results that showed the enhanced importance of altruism in dynamic environments. In these environments high agency costs seem even more detrimental than in stable environments. Thus, our study shows that if altruism is present and fostered in family firms, it can be a powerful resource, which can lead to a competitive advantage that is not replicable in other firms.

We further demonstrated the importance of technological resources and strategic planning in family firms. Whereas superior strategic planning can offset the negative performance consequences of impoverished technological firms, our study supports the importance of strong technological resources for all family firms. These findings are significant given that family firms are often criticized for failing to seek new ventures or to be innovative (Cabrera-Suarez et al., 2001). Our study demonstrates that family firms that invest in technological resources will have a stronger performance. However, we also see that for those firms with little technological resources, strategic planning may be able to compensate and help these firms to succeed. Given these findings, future researchers should further investigate how family firms can improve their technological resources and also, how family firms that may not have technological capabilities may use strategic planning to compensate and contribute to their performance.

Another avenue for future studies should be aimed at unraveling our complex findings regarding environmental dynamism. While altruism was found to be a positive resource in dynamic environments, technological resources did not have a significant effect. Perhaps technological resources were not significant because in highly dynamic environments, competitive advantages are short-lived, and even new competencies produce only temporary advantages. It appears that higher levels of technological resources in neither dynamic nor stable environments ensure a long-term advantage. In contrast, today's competitive landscape requires the integration of specialized knowledge. Altruism may foster knowledge exchange and learning within a family firm which may help them succeed in dynamic environments.

Importantly, this study showed that the performance of family firms cannot be fully understood without taking into account the psychodynamic effects of family relationships. Thus, our study shows a specific family resource, altruism, that helps family firms to succeed. As such, this study demonstrates that family relationships and interactions are significantly tied to a family firm's performance. This suggests that the family can be a source of competitive advantage for a family firm. Our findings also suggest from the resource-based perspective that the inclusion of other "familiness" variables may provide fruitful avenues for future studies that are aimed at helping family firms understand the unique resource that effective family relationships can provide.

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Table 1: Hierarchical Regression Analysis^a
Dependent Variable: Organizational Performance

	Model 1	Model 2	Model 3	Model 4
Step 1: Controls				
Firm Size (Employees) ¹	-.04	-.06	-.05	-.01
Step 2: Main Effects				
Altruism		.34**	.27*	.15
Technological Resources		.25*	.25*	.30**
Step 3: Moderators				
Strategic Planning			.21 [†]	.20 [†]
Environmental Dynamism			.02	-.08
Step 4: Interaction Effects				
Strategic Planning * Altruism				.09
Strategic Planning * Technological Resources				-.45**
Environmental Dynamism * Altruism				.22*
Environmental Dynamism * Tech Resources				.20
Change in R ²	.00	.20***	.04	.12*
R ²	.00	.20	.25	.36
Adjusted R ²	-.01	.17	.19	.28
F	.11	5.96***	4.42**	4.07***

^a Regression coefficients are reported as betas.

¹ logarithmized

N = 74, [†] p < .10; * p < .05; ** p < .01; *** p < .001.

Figure 2: Interaction: Strategic Planning and Technological Resources

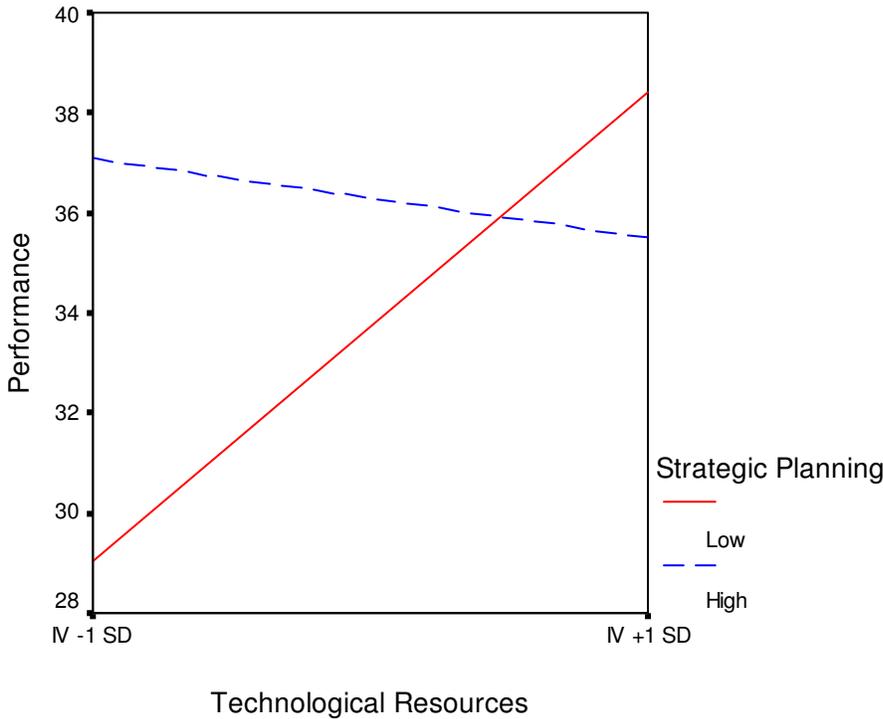


Figure 3: Interaction: Environmental Dynamism and Altruism

