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Resource leveraging via networks by high-technology entrepreneurial firms

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Abstract

This study of 65 New Zealand-based high-technology firms examined resource leveraging via different networks in relation to firm age and growth. Age was not a significant factor in the type of network focus. However, age interacted with the type of network focus in terms of profit growth, and the highest sales growth was associated with resource leveraging via horizontal, or competitor-based, networks. Implications include continually assessing the origins of external resources and their impact on performance. © 2002 Elsevier Science Inc. All rights reserved.

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1. Introduction

The use of networks to access external resources and pursue competitive advantage is considered to be "the essence of entrepreneurship" and the distinguishing factor between fast- and slow-growth firms (Jarillo, 1989). However, we have very little empirical evidence comparing and contrasting the sources of external resources and their relationship to the growth of the firm.

The evidence, to date, suggests that age is an important determinant of network emphasis. For example, social networks, or resources from family and friends, predominate during the early stages of a venture's life (Birley, 1985); more strategic networks transpire later in the life of the firm, and tend to consist of relations with customers and suppliers (Larson & Starr, 1993). However, taking the view that one of the distinguishing factors of entrepreneurial firms is the emphasis on growth (Carland, Hoy, Boulton, & Carland, 1984),

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we may find that some entrepreneurs in young firms eschew the use of social networks in favor of more strategic networks that support their growth objective. Therefore, in this article, we incorporate growth to further explore the relationship between age and the use of networks.

In addition, research on more strategic networks has tended to focus on relations along the value chain, or vertical networks. We have very little information on the use of horizontal, or competitor-based, networks, although firms that are constrained by a lack of resources may logically see those resources residing with competitors. In a rapidly changing business environment, competitor firms may be the best source of complementary resources or up-to-date information. Given this, it might be conjectured that information and resource asymmetries would result from an emphasis on alternative forms of network, and that this would have an impact on the growth or competitive advantage of the firm. This study investigates this issue by studying the growth of the firm in the context of different types of networks.

From this brief introduction, it is apparent that growth may be both a determinant and an outcome of the focus on different types of networks to access external resources. In this study, we investigate growth as a dependent variable in the hypothesized relationships; however, we also attempt to ascertain motivations for, and advantages of, different network emphases through additional contextual questions in our questionnaire survey. In sum, the research reported here has three objectives in building upon and extending existing knowledge:

- to investigate the use of internal and external resources by New Zealand-based high-technology entrepreneurs;
- to determine the nature and sources of the resources externally accessed;
- and most importantly, in terms of advancing knowledge in the field, to relate the findings to the age and growth of the firm.

The following section provides a review of the literature regarding the use of networks by entrepreneurial firms, which includes the presentation of the research hypotheses. The method and measures employed to test the hypotheses are then highlighted before presenting the results of the research. The article concludes by drawing implications for practice, research, and policy.

2. Literature review

2.1. Accessing external resources (resource leveraging)

In the 1990s, the field of entrepreneurship research arrived at a watershed definition when Howard Stevenson described entrepreneurship as "... the process of creating or seizing an opportunity and pursuing it regardless of resources currently controlled" (Timmons, 1994, p. 7). This resulted in a clearer focus on the entrepreneur as a "coordinator" (Murphy, 1986),