GOVERNMENTAL SPONSORSHIP AS A MECHANISM RESTRICTING SCHOOL ENTREPRENEURSHIP

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ABSTRACT

Much literature exists regarding the effect of government sponsorship on the entrepreneurial strategies employed by targeted private sector businesses. The present study expands on this literature and examines these relationships in the publicly funded school system. Based on the literature, the working hypothesis was that the more a school relies on government sponsorship (supplementary resources in the form of extra project-hours), the less radical its entrepreneurship will be. The study is based on a sample of 140 elementary schools in Israel. It was found that government sponsorship of schools creates a self-regulating selection mechanism that promotes government policies in education. Schools enjoying a significant amount of government sponsorship adopt mainly the incremental, non-deviant, "calculated entrepreneurial strategy." Only when they enjoy a moderate level of government sponsorship do schools have sufficient resources to embark on "radical entrepreneurship," because then state regulation is still unnoticed.

INTRODUCTION

The theoretical and empirical literature consistently attests to the effect that government sponsorship has on an organization's entrepreneurial strategy. "Sponsorship" is defined as a deliberate attempt to provide a significantly higher and more stable level of resources for target organizations, helping them out during the initial stages and increasing the likelihood of their survival (Flynn, 2000). Although businesses, nongovernmental organizations, philanthropic foundations, and universities can provide such sponsorship, government is a major player in the setting of sponsorship mechanisms. Governments that wish to enhance planned change in the economic environment employ this sponsorship mechanism. Through such sponsorship, governments intervene in the market to narrow the information asymmetries that prevent new and small business from using ordinary financial mechanisms, such as banks and venture capital funds (Felsenstein & Fleischer, 2002; Li, 2002; Lerner, 2002). By fostering a better environment for target organizations, governments can influence the rate and character of small-business entrepreneurship.

Research on government sponsorship mechanisms and entrepreneurship, both theoretical and empirical, has focused mainly on the business world. The aim of the current research is to study the relationship between government sponsorship and entrepreneurship in the public educational system. This may help us understand how government sponsorship is associated with the emergence of different entrepreneurial strategies among different publicly supported elementary schools.

THEORY AND HYPOTHESES

Government Sponsorship and Entrepreneurship

The importance of entrepreneurship for the economy is widely acknowledged. To aid the economy, government policy frequently seeks to assist entrepreneurship by means of sponsorship mechanisms (Li, 2002). Government intervention is supposed to cover the capital deficiencies of the free market (Felsenstein & Fleischer, 2002; Li, 2002) and provide better resources for entrepreneurship. Accordingly, government sponsorship has a significant positive correlation with the establishment of new organizations and higher rates of survival by fledgling businesses (Flynn, 2000). Moreover, government-financing programs have been associated with faster growth of companies (Lerner, 1999; 2002). Government subsidy programs serve to confirm the caliber of the entrepreneurship and thereby attract additional capital from venture financers (Lerner, 1999; 2002). Furthermore, government subsidies exert a strong effect on the allocation of credit and favor targeted entrepreneurs (Li, 2002). It can be claimed that targeted organizations enjoy a more favorable environment and wider legitimacy and have more resources available to them (Lerner,

1989). Government sponsorship thus lowers the environmental uncertainty faced by entrepreneurial organizations.

But these benefits are limited to the early stages of a new business. In the long range, government sponsorship harms an organization's ability to adapt to its environment. Target organizations develop in an artificially enriched resource environment; their later capacity to effectively compete for scarce resources is severely undermined by the previous sponsored environment (Flynn, 2000). Flynn, extending Hannan and Freeman (1984), maintains that sponsorship constrains early learning and that this effect is reinforced by the structural inertia of organizations. Consequently, sponsored companies frequently lose their ability to go public (Lerner, 1999, 2002); but if they do so, when sponsorship either dries up or is no longer effective at buffering organizations from environmental and competitive shocks, their mortality rate rises (Flynn, 2000).

These deficiencies are usually ascribed to an inherent failure of the government selection system associated with sponsorship. Studies show that governmental selection mechanisms often makes previous subsidies the only criteria for continued sponsorship (Lerner, 2002), thereby favoring targeted organizations regardless of their effectiveness (Lerner, 2002; Li, 2002). Sponsored entrepreneurial organizations tend, therefore, to strengthen bureaucratic mechanisms that insure consistent governmental support. Thus, government selection policies have the perverse effect of punishing rapid spontaneous entrepreneurship (Baum & Singh 1994). Organizations avoid unapproved entrepreneurial activism lest they jeopardize their public funds (Lerner, 2002).

In sum, government sponsorship is substantial only in the early stages of entrepreneurial establishment. Government selection mechanisms foster self-regulating processes within targeted organizations, so that organizations favor non-deviant entrepreneurial strategies that avoid clashes with the system. It can be claimed that a high level of government sponsorship entails greater governmental control (Lerner, 1989). Government sponsorship fosters a form of institutional paternalism, which in turn increases the targeted organization's compliance with the rules of the system and constrains its corporate entrepreneurship.

Corporate Entrepreneurship

Corporate entrepreneurship has been recognized as an organization-level phenomenon (Zahra, Karutko & Jennings, 1999). Consequently, entrepreneurship can be described as an organization's constant tendency to initiate and implement both incremental and radical innovations in its internal and external environments (Herbert & Brazeal, 1998; Kemelgor, 2002). Different corporate entrepreneurship strategies may represent the willingness and/or ability of an organization to ignore existing environmental constraints. In this sense, corporate entrepreneurship may represent different degrees of self-generation, self-directedness, and independent self-sustained action (Lumpkin & Dess, 1996).

Corporate entrepreneurship is a multidimensional phenomenon that includes a tendency towards proactivity and innovation[1] (Miller & Friesen, 1982; Covin, & Slevin, 1991; Slevin & Covin, 1990). Proactivity is defined as the inclination to shape the environment rather than merely react passively. It has also been defined as the willingness to initiate action to which competitors then respond. Innovation is defined as the ability to implement newly designed services and/or products. Entrepreneurship may take different shapes and characteristics, however, since these two dimensions may be found in various combinations in different organizational settings. These combinations have been given different theoretical conceptualizations in the literature, referring to different entrepreneurial orientations within a system.

The conservative orientation, represented by Covin and Slevin's "conservative organization"

1 Three main dimensions of corporate entrepreneurship have been mentioned in the theoretical literature: proactivity, innovation, and risk-taking (Covin, & Slevin, 1991). These dimensions are also common in measurements of corporate entrepreneurship. The risk-taking dimension was omitted from current study, because its inclusion in the entrepreneurship scale may lead to measurement bias. Researchers have not found systematic correlations between risk-taking and entrepreneurial organizations; the lack of correlation suggests that this variable does not function linearly in the prediction of organizational entrepreneurship (Lumpkin & Dess, 1996; Norton & Moore, 2002).

(low proactivity and low innovativeness) (1991) or Mintzberg's "adaptive mode" strategy (moderate proactivity and low innovativeness) (1973), emphasizes stability, continuity, and maintenance of the status quo (Brazeal & Herbert, 1999; Barringer & Bluedorn, 1999).

The incremental orientation, represented by Mintzberg's "calculated entrepreneurial strategy" (moderate proactivity and moderate innovativeness) (1973), is reactive in nature and follows traditional linear models that build on historical improvements approved by the system. This orientation, however, does not dramatically alter the status quo (Bygrave & Hofer, 1991; Pavitt, 1991).

The opportunistic orientation, represented by Adizes' "arsonist entrepreneurship" (high proactivity and low innovativeness) (1985) and Eyal and Inbar's "initiating entrepreneurship" (high proactivity and moderate innovativeness) (2003), represents a "flurry" strategy in which almost any opportunity is perceived as one that should be taken advantage of (Brown, Davidsson & Wiklund, 2001; Stevenson & Jarillo, 1990). The "arsonist entrepreneurship" strategy does not lead to the implementation of ideas that may come up; the "initiating entrepreneurship" strategy can be classified as a proactive mode that promotes a trial-and-error culture, although with limited institutionalization of irregular practices.

The radical orientation is represented by the "vigorous entrepreneurial strategy" (high proactivity and high innovativeness) (Barringer & Bluedorn, 1999; Covin & Slevin, 1991; Kemelgor, 2002). This strategy features discontinuous changes and discards conventional operating practices (Brazeal & Herbert, 1999; Stringer, 2000). It represents a dramatic departure from the system's familiar practices, independently initiated within the organization (Tellis & Golder, 1996). Therefore, it could be claimed that this entrepreneurial strategy constitutes the ability to go against the current organizational structure as if it did not exist (Czariawska-Joerges & Wolff, 1991).

The different entrepreneurial strategies represent different organizational tendencies to sidestep governmental constraints. Hence the opportunity structure for school entrepreneurship should be examined in relation to the orientation of educational systems.

Public Education Systems and Entrepreneurship

Research literature asserts that the entrepreneurial spirit driving managers to initiate, innovate, change, and influence their surroundings is visible and important in various systems, including public organizations and educational systems (Ardichvili, Cardozo, & Ray, 2003; Caruana, Ewing, & Ramaseshan, 2002; Eyal & Inbar, 2003). Even though the survival of public schools is generally assured, when schools stagnate they risk losing their relevance and legitimacy in the eyes of the society they serve, and thus their social function to alternative entrepreneurial agencies (Drucker, 1985). This threat has worsened since government acceptance of the dominance of the market paradigm spurred deregulation, privatization, and the creation of markets in the public services (Gibb, 2002; Oplatka, 2002). Entrepreneurship, therefore, should be studied as a basic mechanism that increases a school's adaptive capacity and ability to maintain its relevance in conditions of uncertainty.

Governmental control of the provision of formal education, however, may limit schools' abilities to adopt an entrepreneurial approach that ignores the system's constraints. Eyal and Inbar (2003), discussing the decentralization process experienced by the Israeli educational system, stressed that it remained centrally oriented (see also Nir, 2003) and showed that most entrepreneurship was of the nonradical types. Examples of a similar mechanism have been found in England. Boyett and Finlay (1993) reported that even under deregulation (school-based management reform) that was supposed to inspire entrepreneurial principals, government still acted as the main restraint on school entrepreneurship (Boyett, 1997). Thus, it could be argued that, although the decentralization process may put pressure on schools to act in an entrepreneurial fashion, in order to satisfy local demands (Bowe, Ball & Gold, 1992; Boyett & Finlay, 1993; Kerchner, 1988), schools must still abide by the system's standards in order to maintain their legitimacy and accordingly avoid unapproved entrepreneurial strategies. This would be the case all the more when the formulation and implementation of government sponsorship policy are centralized (Flynn, 2002), as in the case of public education.

Because public education system in Israel is funded mainly by the state, it is considered to be governmental sponsored. One major way in which government sponsors education is through the allocation of additional resources for various programs, projects, and activities that are not compulsory.

Therefore, although public schools are government-funded, schools can still be characterized by the amount of supplementary sponsorship they receive. If schools meet certain criteria, they receive extra funding, in the form of extra project hours, for teaching and administrative activities.[2] Schools that do not meet these criteria receive funding for the compulsory minimum only. In that sense, the sponsorship mechanism creates an authorized niche for differential school entrepreneurship. The following hypotheses follow from this background:

Hypothesis:
There is a relationship between the degree of government sponsorship for a school and its entrepreneurial strategies. This means that:

Hypothesis A: Schools that receive more government sponsorship are more likely to exhibit incremental entrepreneurial strategies, characterized by intermediate levels of proactivity and innovativeness (i.e., "calculated entrepreneurship"), than are schools that receive less funding.

Hypothesis B: Schools that receive more government sponsorship are more likely to avoid radical entrepreneurial strategies, characterized by high levels of proactivity and innovativeness (i.e., "vigorous entrepreneurship"), than are schools that receive less funding.

METHOD

Sample and Data Collection

This study is based on a stratified random sample of 140 Israeli elementary schools located in three districts. The response rate of schools was 81%. In each school, 10 teachers were chosen at random to participate in the study. The sample included a total of 1,395 teachers—68% of them female.

The use of a stratified sample required the use of a weighted sample to prevent deviations in the estimates and in the P-values derived from the statistical tests (Levy & Lemeshow, 1991). For this purpose, the statistical analysis was carried out with SUDAAN software, which is capable of handling complex samples, and especially sampling errors and correctness of estimates in such complex samples, as well as comparisons of population groups (Thompson & Seber, 1996).

Measurements

Measurement of school entrepreneurship. Items from the Public School Entrepreneurial Inventory (PSEI [Eyal & Inbar, 2003]) were used to measure the two dimensions of entrepreneurship—proactivity and innovativeness. The items were formatted on a seven-point Likert scale, and subjects were asked to indicate the degree to which each item described the situation in their school. Four items measured proactivity ($\alpha = 0.86$); ten measured innovativeness ($\alpha = 0.92$). Construct validity was tested by exploratory principal component factor analysis (Grimm & Yarnold, 1997) with direct oblimin rotation. The results of this analysis appear in Table 1. (See Table 1.)

In line with the theoretical model of entrepreneurship proposed above, two dimensions of entrepreneurship as organizational phenomena emerged in the factor analysis:

- Principal's proactivity refers to the principal's willingness to initiate actions within the school, i.e., actions motivated by local factors and not imposed by higher authorities.
- Organizational innovativeness is defined as the perceived quantity of innovations implemented in a school in a given time period and their impact (first- or second-degree change) on the organization.

Constructing the entrepreneurial strategy profiles. In order to derive the entrepreneurial strategies from the entrepreneurial dimensions--the principal's proactivity and the school's innovativeness--the average score assigned by the teachers for each factor was mapped to one of three categories: low, moderate, or high. For each dimension, a score

2 Extra funding units can also take the form of monetary grants. Money is a more flexible means than hours, which are earmarked for special purposes, except in cases when the money, too, is earmarked for special uses. In the case of the Israeli educational system, most funds come in the form of earmarked "hours."

of less than 4 was categorized as low; between 4 and 5.5 was considered moderate; and above 5.5 was considered high. The choice of cutoff points is justified semantically (See also Eyal & Inbar, 2003).[3] The entrepreneurial strategies (profiles) were composed using the categorizations specified above for the two dimensions of organizational entrepreneurship. Theoretically, there are nine potential entrepreneurial strategies, but only four were identified in the current study.

Measurement of Government Sponsorship

Government sponsorship level is usually measured according to the total resources spent on economic development. Government sponsorship includes change in tax structures, government subsidies, or direct allocation of resources by the state to target organizations (Li, 2003). All these sponsorship methods favor targeted organizations. In the present study, the level of government sponsorship was defined by the number of extra project-hours funded by the Ministry of Education above and beyond the compulsory minimum.

Two main government allocation processes were used to measure the level of government sponsorship: the allocation of compulsory hours and the allocation of extra project-hours.

Compulsory hours are those funded for all schools that receive public funding. These hours fall into two categories:

- Hours funded on the basis of the number of classes (i.e., grade sections).[4] These "hours" are used for teaching the official core curriculum, informal classroom activities, class management, and administrative tasks.
- Hours allocated according to defined parameters, such as socioeconomic index, proportion of immigrant pupils, and proportion of special-education pupils.

Extra project-hours are hours funded after a school has gone through a preliminary screening based on government-defined criteria. This qualifies it to receive supplementary government-funded hours. These "hours" include those to support experimental schools, "magnet schools," or special teaching methods.

The government sponsorship of a school is an addition to the compulsory hours. In order to create a standard measure of government sponsorship hours, it is calculated that the percentage of government sponsorship hours vis-à-vis the school's total number of compulsory hours. For example, if a school has 100 compulsory hours and 20 extra project-hours, it has 20% government sponsorship hours.

The government sponsorship level was calculated for each school based on the Education Ministry database. The level was broken down into three categories, using the 25th and 75th percentiles as boundaries. This procedure divided the research sample into three groups:

(1) schools that receive little government sponsorship—equal or less than 5% extra project-hours on top of the compulsory hours;

(2) schools that receive moderate government sponsorship—between 6% and 13% extra

3 A semantic scale representing teachers' agreement with the notion that the behaviors presented characterize the pattern that exists in their school accompanied the original seven-point likert scale, used in this research. Scores lower then 4, semantically represented disagreement with the notion that the behaviors (proactivity and innovation) characterized the pattern that existed in their school. All scores above 4 represent agreement that the behaviors presented characterize the school. Yet, proactivity and innovation are highly valued in society in general. Dividing the positive range of the scale reduced that bias. Thus, scores higher than 4 were divided in mid-range into two categories. Scores higher than 4 and lower than 5.5 meant that the behavior is to be found, but it cannot characterize fully the pattern of operation in the school. Scores higher then 5.5, represent strong agreement that the behaviors presented characterize the most common pattern in their school. It meant that the described behavior is happening on a regular basis at school.

4 The allocation of hours in the Israeli system was modified in 2003. From now on hours will be allocated by pupil rather than by class and most of the extra project-hours have been eliminated (Shoshani, 2003). The present study, however, was conducted before the reform took effect.

project-hours on top of the compulsory hours; and,
(3) schools that receive a large amount of governmental sponsorship—between 14% and 40% extra project-hours on top of the compulsory hours.

RESULTS

Organizational Entrepreneurial Strategies

In this study, four of the proposed theoretical strategies of corporate entrepreneurship in elementary schools were identified: (a) the *conservative strategy*, combining a moderate score for principal's proactivity with a low score for organizational innovativeness; (b) the *calculated entrepreneurial strategy*, combining moderate scores for principal's proactivity and organizational innovativeness; (c) the *initiating entrepreneurial strategy*, combining a high score for principal's proactivity with a moderate score for organizational innovativeness; (d) the *vigorous entrepreneurial strategy*, combining high scores for both principal's proactivity and organizational innovativeness.

Testing of Hypotheses

The research hypothesis was tested using a chi-square test. Table 2 shows the entrepreneurial strategy distribution according to a school's governmental sponsorship. In support of the research hypothesis, the relationship between government sponsorship and the entrepreneurial distribution was found to be statistically significant ($\chi 2[6,140]=13.22$, $p < 0.05$). (See Table 2.)

Table 2 shows that, in keeping with hypothesis A, schools that enjoy a high level of government sponsorship exhibit a relatively high proportion of "calculated entrepreneurship" strategies as compared to schools that enjoy small and medium levels of government sponsorship. Contrary to hypothesis B, however, the proportion of "Vigorous Entrepreneurship" strategies did not have a linear relationship with the level of government sponsorship; less sponsorship did not produce more "Vigorous Entrepreneurship." Unexpectedly, the lowest frequency of "Vigorous Entrepreneurship" was found in schools with minimal government sponsorship, and the highest frequency in schools with moderate government sponsorship. This deviation from the hypothesis will be addressed in the discussion that follows.

DISCUSSION

The current study shows that government sponsorship is expressed in the educational system the same way it is expressed in private business. A large influx of governmental resources limits the school's freedom to pursue unapproved entrepreneurial initiatives and it therefore tends to employ mostly the incremental "Calculated Entrepreneurship" strategy. But whereas there is a linear relationship between sponsorship and radical entrepreneurship in businesses, in public education the relationship is nonlinear. As mentioned, the schools with moderate sponsorship actually had a higher rate of radical "vigorous entrepreneurship" strategy than did schools with low and high sponsorship.

The resemblance between education and business with regard to the increased rate of approved entrepreneurship in strongly sponsored organizations can be ascribed to the basic selection mechanisms typically associated with sponsorship. The selection criteria function as institutional sanctions that shape the niche for school entrepreneurship. In fact, sponsorship selection mechanisms seem to go beyond setting criteria for selection and insist that sponsored schools evince full identification with the system's values. Therefore, it could be claimed that, as in business, government sponsorship of school entrepreneurship creates a self-regulating mechanism that promotes government policies.

How can we explain the fact that the schools that enjoy moderate sponsorship are more radical? Perhaps the key is that schools, unlike businesses, depend almost exclusively on government funding. This means that at low sponsorship levels, at which businesses are attracted to radical entrepreneurship strategies in order to survive, schools that lack other resources will persist in the conservative system approach. Only when they receive an intermediate level of government sponsorship do schools have sufficient resources to take initiative; because state regulation remains largely unnoticed at this level of sponsorship, there is still room for radical entrepreneurship. Higher levels of government sponsorship are accompanied by more state regulations and supervision, which cause schools to revert to incremental

entrepreneurship. It is thus reasonable that medium-level sponsorship, when additional resources exist and regulation is still low, constitutes the niche in which the radical strategy is most common.

The reason that government allows its additional resources to be applied to radical programs, at the medium level, is connected with the limited scope of such programs. At moderate levels of sponsorship, all radical initiatives remain local and influence only the school itself. With this limited budget, the radical new approach cannot be exported to other schools or districts unless the system approves it in the form of additional funding. Any attempt to expand the initiative will in fact institutionalize it—ipso facto reducing its radical character.

We may speculate, then, that a moderate level of government sponsorship affects the public education system in two ways. First, it creates a channel for releasing undesirable stress within the system without endangering the legitimacy of the system. Second, it enables the development of practices that facilitate the system's adaptation to its environment in a planned and controlled manner.

Nonetheless, the major paradox of government sponsorship remains: government planning mechanisms that seek to promote unique needs, through sponsorship, limit schools' ability to address those needs by means of independent and unrestricted entrepreneurship. This makes the employment of alternate, indirect government intervention strategies crucial. Such strategies, which aim at developing a regional infrastructure, can support school entrepreneurship beyond the limits set by direct government sponsorship.

This study demonstrated how government sponsorship determines the opportunity structure for school entrepreneurship. Further study is needed in order to fully understand the different opportunity structures for school entrepreneurship in centralized and decentralized educational systems. Future research should also examine how public or private sponsorship mechanisms differ from government sponsorship mechanisms in their effect on school entrepreneurship.

The conceptual framework developed in this research can provide an effective tool to help practitioners, policy makers, and planners develop, facilitate, and assess school entrepreneurship strategies that promote an adaptive, flexible, and relevant educational system that can address unique local needs.

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Table 1

Results of the public school entrepreneurship inventory factor analysis: Direct Oblimin Rotated Factor Loading

Item	Factor 1	Factor 2
The innovations implemented in the last two years have radically changed the school.	**0.869**	-0.124
The innovations that have been implemented during the last two years have led to an overall, system-wide change in our school.	**0.841**	0.010
The innovations implemented in the last two years have caused a turnaround in our school's courses of action.	**0.831**	0.018
The innovations implemented in the last two years have led to a significant and substantial change in the guiding assumptions of our school.	**0.816**	-0.192
In the last two years a great many innovations have been implemented in our school.	**0.696**	0.218
In the last two years our school has implemented a great number of activities that did not exist previously.	**0.691**	0.167
In the last two years, our school implemented many activities that had not been tried previously.	**0.660**	0.170
A great number of innovations were implemented in our school in the last two years.	**0.572**	0.232
Innovations are a central factor in the life of our school.	**0.556**	0.306
In our school there is a tendency to implement new courses of action.	**0.504**	0.381
Our school principal exhibits great initiative qualities.	0.097	**0.846**
The school principal exhibits no initiative quality in his/her actions.	-0.108	**0.835**
The school principal has shown great initiative in the development of ideas and activities in our school.	0.147	**0.774**
Many of the activities that characterize our school are the direct result of the principal's initiative.	0.050	**0.723**

Factor 1: Organizational innovativeness
Factor 2: Principal proactiveness

Table 2

School entrepreneurial strategies distribution according to governmental sponsorship Level

Government Sponsorship Level	Frequency	Vigorous Entr.	Initiating Entr.	Calculated Entr.	Conserva-tive Entr.	Total Schools In The Category
Small	School N	2	18	15	3	38
	School Weight	4.17	43.19	34.46	4.91	86.73
	Strategy* Weigh %	**4.81%**	**49.8%**	**39.73%**	**5.66%**	100%
Medium	School N	9	33	22	5	69
	School Weight	24.42	87.41	53.58	9.73	175.14
	Strategy Weigh %	**13.94%**	**49.91%**	**30.59%**	**5.56%**	100%
High	School N	5	10	17	1	33
	School Weight	9.46	27.63	46.98	2.89	86.96
	Strategy Weigh %	**10.88%**	**31.77%**	**54.02%**	**3.32%**	100%

***** The stratified sample methodology calls for considering strata weight in the population. Therefore, frequencies estimates are calculated according to school weight in each of the government sponsorship levels. Accordingly, school entrepreneurial strategies percentage in the category is calculated relative to total school weighted number in the category.

N = 140
Weighted N=349
School N = Schools Frequency in the Sample
School Weight = School Weight in the Category
Strategy Weigh %= Strategy Weighted % from schools in the category