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Privatization, Corporate Entrepreneurship, and Performance: Testing a Normative Model

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Abstract

Private and institutional investors, management consultants, and national economic policy makers have recognized that privatization is an important vehicle for overcoming the economic and social drawbacks of state owned enterprises' management, functioning and performance. Corporate entrepreneurship (entrepreneurial activities and orientations at the level of an established organization) has also been recognized an important element in organizational and economic development, performance and wealth creation. Despite the recognized linkage of privatization and corporate entrepreneurship activities, research has devoted minimal attention to explicitly investigating relationships among privatization, corporate entrepreneurship and performance elements. This article promotes a better understanding of privatization driven corporate entrepreneurship and performance by developing and testing a normative model on a sample of Slovenian firms. The findings of this study demonstrate that the privatization method (private control versus extended state control) makes a difference in organizational growth and profitability, particularly in terms of its strong direct effects, as well as with mediation of corporate entrepreneurship activities that include new venture formation, product/service innovation, and process innovation. In addition, privatization time (speed of finalization of formal privatization procedures) tends to be a strong predictor of subsequent organizational profitability.

Key words: Privatization, corporate entrepreneurship, performance

Private ownership is an important cornerstone of modern society and economic performance. Private and institutional investors, management consultants, and national economic policy makers have recognized that privatization should be considered as an important vehicle for overcoming the economic and social

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drawbacks of state owned enterprises' management, functioning and performance. Corporate entrepreneurship (entrepreneurial activities and orientations at the level of an established organization) has also been recognized an important element in organizational and economic development, performance and wealth creation. Corporate entrepreneurship can be important for revitalization and performance of firms (Schollhammer, 1981, 1982; Burgelman, 1983, 1985; Kanter, 1984; Pinchot, 1985; Rule & Irwin, 1988; McKinney & McKinney, 1989; Guth & Ginsberg, 1990; Zahra, 1991); not only for large corporations but also for small and medium sized enterprises (Covin & Slevin, 1989; Covin & Covin, 1990; Carrier, 1994). It is important not only in developed but also in transition economies (Antoncic & Hisrich, 2000). It can affect an economy by increasing productivity, improving best practices, creating new industries, and enhancing international competitiveness (Wennekers & Thurik, 1999).

A large part of the contemporary literature on privatization has emerged from economics and finance disciplines (e.g., Yarrow, 1986; Caves, 1990; Vickers & Yarrow, 1991; Megginson, Nash, & Van Randenborgh, 1994; Boubakri & Cosset, 1998), where focus has been on the "economic and social rationale for privatization or on specific questions related to how governments can better achieve certain socioeconomic goals through alternate privatization structures and policies" (Doh, 2000: 551). Corporate entrepreneurship as an important performance-driving economic activity has been given little attention in the context of privatization (Zahra et al., 2000). In this study the role of privatization in corporate entrepreneurial activities is examined and linked to firm performance by developing and testing a normative model.

Theory and Hypotheses

Privatization and Corporate Entrepreneurship Activities

The most common meaning of the phenomenon of privatization refers to the change in ownership of an enterprise and consequently the change in its governance and control systems (Ramammurti, 1992; Zahra et al., 2000). The act of privatization includes actions and activities that transfer the ownership of state owned companies to the private sector.

Privatization is comprised of two important elements: method and time. Privatization method refers to the new structure of ownership and the extent in its changes during the privatization process, whereas privatization time refers to the timing of the ownership structure change. Zahra et al. (2000) used a somewhat different categorization in their discussion on privatization strategies. In their view, privatization strategies can be discussed in terms of privatization modes and privatization processes. Privatization modes include the extent of privatization (for example, partial or full) and the way in which privatization occurs (for instance, sale of a company's shares or assets through negotiated agreements or public bidding, redistribution of shares to domestic individuals or funds, sale to domestic

or foreign investors, and sale to managers or employees). Privatization processes cover the implementation part of privatization – the ways in which privatization strategies are implemented. The speed, direction, and magnitude of privatization changes depend on the mode and process of privatization. In this article, privatization method includes both the mode and the process characteristics, that is, the resulting ownership structure is contingent both on the selection of the extent and the method of privatization as well as on the implementation of the selected privatization path. Privatization time, on the other hand, is a process element that indicates the speed of the new ownership structure formation. Both privatization method and time are important for subsequent changes in governance and control systems. Privatization method shapes the processes of these changes and determines the extent of the effects and outcomes, while privatization time determines the speed of these method-dependent changes.

Privatization as the change of ownership does not involve merely the change in the legal documents, but has much deeper and broader implications. The act of privatization is interlinked with a variety of activities, effects and outcomes. A good summary model of processes and outcomes of privatization has been developed by Zahra et al. (2000), which includes effects and outcomes. The effects are divided into two parts: the first-order effects include organizational transformations in terms of incentives, structures and organizational culture, while the second-order effects involve organizational learning and greater access to technological opportunities and networks. These organizational transformation effects in turn spur entrepreneurial outcomes such as innovation and venturing activities. Before the relationship between privatization and corporate entrepreneurship activities are discussed, entrepreneurship and corporate entrepreneurship need to be defined.

Entrepreneurship is considered an individual or organizational level behavioral phenomenon (Gartner, Bird, & Starr, 1992). Emergence-related behavioral intentions and behaviors, such as organization formation and innovation, differentiate entrepreneurship from non-entrepreneurship. This definition of entrepreneurship provides a view consistent with historically defined distinctions between entrepreneurial and less-entrepreneurial small business owners and small business ventures (Carland et al., 1984), entrepreneurs and owner/managers (Schumpeter, 1934), entrepreneurial and administrative managerial behavior (Stevenson & Gumpert, 1985), and entrepreneurial and less-entrepreneurial firm-behavior (Covin & Slevin, 1991). Entrepreneurship exists when new combinations are actually carried out and ceases when this process is completed (Bull & Willard, 1993).

Entrepreneurship can be seen as outcome-based behavior or its intentions. The view in this article is that organizations differ with regard to the levels of entrepreneurship they demonstrate, especially as reflected in organizational outcomes. Organizations can be viewed on a continuum that ranges from less to more entrepreneurial. The perspective on entrepreneurship as a continuum is evident in Covin and Slevin's (1989) distinction between conservative (risk averse, non-innovative, and reactive) firms and entrepreneurial (risk taking, innovative, and

proactive) firms, and in Brazeal and Herbert's (1999) organizational entrepreneurship representation that ranges from the entrepreneurially challenged firm (with a non-existent commitment to entrepreneurship) to the entrepreneurial firm (with a total commitment to entrepreneurship), as well as in other corporate entrepreneurship studies (Zahra, 1991, 1993; Knight, 1997; Lumpkin & Dess, 1997; Lumpkin, 1998).

In previous research, corporate entrepreneurship has been defined in several ways: as a process by which individuals inside organizations pursue opportunities independent of the resources they currently control (Stevenson & Jarillo, 1990); as doing new things and departing from the customary to pursue opportunities (Vesper, 1990); as a spirit of entrepreneurship within the existing organization (Hisrich & Peters, 2002); and as a creation of new organizations by an organization, or as an instigation of renewal and innovation within that organization (Sharma & Chrisman, 1999).

For the purposes of the current research, corporate entrepreneurship is defined as entrepreneurial activities that occur within an existing organization. Accordingly, corporate entrepreneurship refers not only to the creation of new business ventures, but also to other innovative activities and orientations such as development of new products, services, technologies, administrative techniques, strategies and competitive postures.

As the current study is concerned with assessing the implications of privatization for entrepreneurial activity and performance, the conceptualization of corporate entrepreneurship concept will consist only of the most pronounced elements of organizational level entrepreneurial activities. These include new venture formation and product/service and process innovation. New business venturing is an important and salient corporate entrepreneurship element since it can result in new business creation within an existing organization (Stopford & Baden-Fuller, 1994). In large corporations, as well as in smaller established firms, new venturing can include the formation of more formally autonomous or semi-autonomous units or firms, often labeled incubative entrepreneurship (Schollhammer, 1981, 1982), internal venturing (Hisrich & Peters, 1984), corporate start-ups (MacMillan, Block, & Narasimha, 1984), autonomous business unit creation (Vesper, 1984), venturing activities (Guth & Ginsberg, 1990), newstreams (Kanter & Richardson, 1991), and corporate venturing (Sharma & Chrisman, 1999).

Product/service and process innovativeness refer to product and service innovation, and an emphasis on development and innovation in technology. Corporate entrepreneurship includes new product development, product improvements, and new production methods and procedures (Schollhammer, 1982), the extensiveness and frequency of product innovation and the related tendency of technological leadership (Covin & Slevin, 1991), development or enhancement of products and services as well as techniques and technologies in production (Knight, 1997).

Privatization can unleash management decision-making in the direction of

entrepreneurial activities. Prior to the change of ownership from state to private, managers are limited in their initiatives to implement strategic changes (Cragg & Dyck, 1999) due to bureaucratic and financial controls and constraints. These restraining factors are released after privatization leading to a greater planning and developing strategies based on market and industry analyses, greater discretion to redefine organizational goals, structures and processes, and higher incentives to support activities which increase shareholder value (Zahra et al., 2000).

One important organizational element that can be changed through privatization and is beneficial for corporate entrepreneurship is organizational and management support for entrepreneurial activities. This support includes top management involvement (Merrifield, 1993), encouragement (Hisrich & Peters, 1984), support, commitment, and style, and the staffing and rewarding of venture activities (MacMillan, 1986).

Organizational support in terms of training individuals within the firm to detect opportunities (Stevenson & Jarillo, 1990) and making resources available to employees (Kanter, 1984; Pinchot, 1985) have been proposed to positively influence a firm's entrepreneurial activities and behavior. The importance of organizational support for corporate entrepreneurship has been also been stressed by Zahra (1993). Organizational support elements such as management support, work discretion, rewards, time availability, and loose intra-organizational boundaries (Hornsby et al., 1990, 1993) have been seen as crucial organizational elements impacting corporate entrepreneurship. Entrepreneurial activities such as innovation and venturing can be seen as two key entrepreneurial outcomes of privatization magnitude and speed (Zahra et al., 2000) triggered by organizational transformation elements.

On the basis of this research, it is expected that privatization method (i.e., a higher as opposed to a lower share of post-privatization private ownership) and privatization time (i.e., a higher speed of privatization changes) will be positively associated with corporate entrepreneurship. Further, levels of organizational support are expected to modify these relationships.

Hypothesis 1: Privatization method (with a higher share of private ownership) will be positively related to corporate entrepreneurship activities (new venture formation, product/service innovation, process innovation):
1a: directly; and
1b: indirectly (with the mediation of organizational support).

Hypothesis 2: Privatization time (shorter time, faster privatization) will be positively related to corporate entrepreneurship activities (new venture formation, product/service innovation, process innovation):
2a: directly; and
2b: indirectly (with the mediation of organizational support).

Privatization and Performance

Countries adopt privatization policies in order to achieve positive social and economic outcomes. While some intermediate outcomes of privatization, such as entrepreneurial activities, have been previously discussed, what really matters are final outcomes, such as increased GDP, employment, wealth and welfare of an economy that has undergone the privatization process. One important argument for privatization is a perception that a public enterprise behaves in a cost-minimizing manner to a much lesser extent than a private enterprise (Hutchinson, 1991). Several economic studies support this notion of a higher degree of cost minimization (productive efficiency) of private as opposed to publicly owned firms (e.g., Borcherding et al., 1982; Millward, 1982; Domberger & Piggott, 1986). Hence, a privatization method that leads to a firm ownership structure with a higher degree of private ownership than another privatization method may end up with better results than the privatization method with lower share of private ownership.

The speed of changes can also affect the outcomes of privatization efforts (Zahra et al., 2000). Hutchinson (1991: 105) found that "the privatization of public enterprises in the UK is likely to have a positive effect on the profitability performance of the affected firm". In addition to profitability, growth can be seen as an important element of performance. As proposed by Dunsire (1991), in assessing privatization outcomes evaluators should shift from internal criteria (cost reduction) to external criteria (increase in output). This research forms the basis of the following hypotheses:[1]

Hypothesis 3: Privatization method (with a higher share of private ownership) will be positively related to organizational performance in terms of:
3a: profitability; and
3b: growth.

Hypothesis 4: Privatization time (shorter time, faster privatization) will be positively related to organizational performance in terms of:
4a: profitability; and
4b: growth.

In contrast to the notion of the direct impact of privatization on firm performance, Hartley and Parker (1991) argue that the ownership structure itself may not provide expected efficiency gains, but such gains can be achieved only with subsequent changes in product market competition and management quality and incentive structures. This notion is in line with the argument of Zahra et al. (2000), who predicted that privatization outcomes would be achieved through prior privatization-induced organizational transformation. One important element of such transformation is corporate entrepreneurship, which can in turn be influenced by privatization method and time (as previously discussed above). Corporate entrepreneurship is likely related to improved organizational performance, usually in

terms of growth and profitability (Covin & Slevin, 1991), and is felt to be a characteristic of successful organizations (Peters & Waterman, 1982; Kanter, 1984; Pinchot, 1985). Corporate entrepreneurship was found to be related to organizational growth (Covin, 1991; Morris & Sexton, 1996; Stetz et al., 1998) and profitability (Covin & Slevin, 1989; Zahra, 1991, 1993; Zahra & Covin, 1995; Wiklund, 1999; Antoncic & Hisrich, 2000, 2001). Corporate entrepreneurship activities can also mediate the relationship between privatization and the resulting growth and profitability.

Hypothesis 5: Privatization method (with a higher share of private ownership) will be positively indirectly related (through corporate entrepreneurship activities: new venture formation, product/service innovation, and process innovation) to organizational performance in terms of:
5a: profitability; and
5b: growth.

Hypothesis 6: Privatization time (shorter time, faster privatization) will be positively indirectly related (through corporate entrepreneurship activities: new venture formation, product/service innovation, and process innovation) to organizational performance in terms of:
6a: profitability; and
6b: growth.

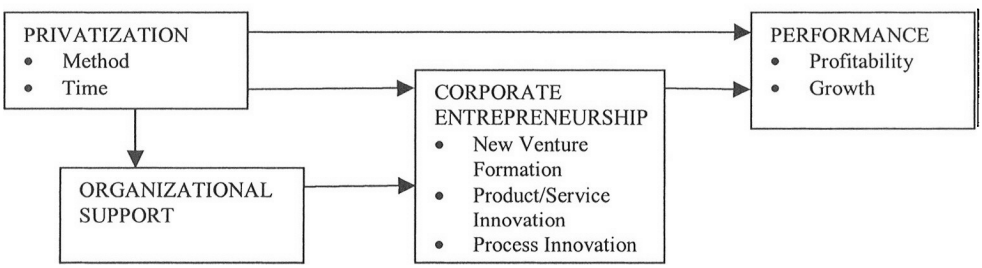
The resulting normative model is depicted in Figure 1.

Research Method

Sampling and Data Collection

With the shift from socialism to market-based systems and recent privatization efforts in Central and Eastern Europe, the so-called transition economies represent an appropriate environment to study the role of privatization in corporate entrepreneurship and performance. For the purpose of this study, the economy of

Figure 1
Model of Privatization and Corporate Entrepreneurship



Slovenia was selected. This economy is a prime candidate for accession to the European Union, because of its good performance compared to other candidates, such as Hungary, Czech Republic and Poland. Slovenia has about a half the GDP per capita of the United States and has become a role model for other transition economies, especially those countries from the Balkans that are in earlier stages of the privatization processes; these countries include: Bosnia, Herzegovina, Federal Republic of Yugoslavia, Former Yugoslav Republic of Macedonia, and Albania.

Data was collected by using a mail survey and from privatization databases. Firms for the sample were selected from the database of the Slovenian Chamber of Commerce, which includes most businesses in Slovenia; the sample was selected from a variety of industries with the exception of health care organizations, financial institutions, and educational institutions. A variety of industries were included — manufacturing consumer and industrial goods, construction, retail and wholesale trade, engineering, research and development, consumer and business services, transportation and public utilities. Since the focus of the study is on corporate entrepreneurship existing in the firm, only firms with 30 or more employees were selected. In the database there were 2,086 firms with thirty employees or more. The questionnaire on corporate entrepreneurship and performance was mailed to each of these firms. The questionnaire was addressed to a top executive of the selected firm and the anonymity of the respondent was assured. The top executive was chosen as a key informant, since he or she should be the most knowledgeable about the overall situation, activities and orientations of the firm that he or she leads. Privatization data was collected from databases of the Slovenian Privatization and Restructuring Agency.

The number of received responses was 502 (24.1% response rate). Eight blank questionnaires were returned by companies that were unwilling to participate in the study. An examination of the remaining 494 for missing data, yielded 477 usable responses for analysis. The typical firm in the sample had 100 to 249 employees (full time equivalent); had US$5 million to up to US$10 million in sales; was 21 to 50 years old; was privatized in the past 1 to 8 years; operated in manufacturing sector; and was located in the central geographic area (the Slovenian capital of Ljubljana and its surroundings). These characteristics matched those of firms in the population in the database. Non-response bias was assessed on basis of the notion that later respondents could be more like non-respondents (Armstrong & Overton, 1977). The responses of later respondents were compared to responses of earlier respondents for all questionnaire items; this comparison indicated the absence of non-response bias.

Data from the questionnaire were combined with the privatization database data. Two privatization methods were distinguished: redistributive state privatization (resulting in the extended state control of firms) and non-redistributive privatization (resulting in the private control of firms). About half (232 out of 477 firms) of the sample firms went through privatization from social to private and semi-state ownership. These firms followed redistributive privatization mainly in the years

from 1994 to 1998. In this privatization method that is characteristic for the Slovenian state privatization of socially owned firms, four main groups of owners became beneficiaries of ownership distribution (Privatisation Report, 1997: 28): (1) institutions (Pension Fund, Compensation Fund, Privatization Investment Funds, banks and other creditors); (2) internal investors (management and employees, former employees, pensioners, and family members); (3) small investors (citizens participating in public offerings of shares); and (4) the state (including local authorities). The state retained a large portion of ownership (22%) through its Pension and Compensation Fund. The rest of the sample firms (245 out of 477 firms) had primarily clearer and less state involved ownership structure, since were mainly private firms having a higher degree of private ownership and were privatized earlier (mainly from 1990 to 1993) than the first group.

Measurement Instrument

Variables of privatization, independent variables in the model, were developed on the basis of the privatization database data. The privatization method (post privatization ownership structure) was operationalized by using a dummy variable (code 0 – extended state control – meaning privatized firms under the common method of privatization that includes a substantial part of state involvement, N=232; and code 1 – private control – meaning the rest (N=245) consisting of mainly private firms with a higher percentage of private ownership than the first group). Privatization time (speed) was assessed only for the extended state control firms and was measured by the absolute number of days that was calculated from the date of the second and final state consensus to the firm's privatization program (this number was standardized and reversed in order to show positive numbers for faster privatization). The dates for this group of sample firms ranged from March 1994 to October 1998.

The questionnaire that included corporate entrepreneurship, performance and control questions was initially prepared in English. The Slovenian version was developed by translation and back-translation (Brislin, 1976, 1980) of the American version into the Slovenian language. After translation, the questionnaire was pre-tested on a group of five Slovenian managers from the Koper area.

Measures were selected according to their congruence with the concepts studied. In the assessment of corporate entrepreneurship and performance, perceptual measures were chosen because they have been widely used in previous research and are useful in providing a greater understanding of causal relationships in the corporate entrepreneurship model, due to their high specificity and provision of precise assessments of conditions within a firm, and their practicality in their convenient administration and uniform interpretation (Lyon, Lumpkin, & Dess, 1999). Five point scales were used in this research in order to keep the questionnaire as simple as possible, except in cases where longer scales were needed to capture sufficient information (e.g., when quantifying innovation, growth and profitability).

Corporate entrepreneurship was measured by items, which pertain to product/service (8 items) and process innovativeness (8 items) from the ENTRESCALE (Knight, 1997) and from the corporate entrepreneurship scale (Zahra, 1993), and by four items reflecting new venture formation in terms of new autonomous or semi-autonomous unit or firm formation.

Organizational support was measured by items from Hornsby et al. (1993) and items reflecting support activities for creativity and innovation from Zahra (1993). Organizational support questions (12 items) refer to management encouragement, worker's discretion about their work-related decisions, designating idea champions, establishing procedures to solicit and examine employee ideas, permeability of job boundaries, training, rewards and reinforcement, and availability of time and financial resources for pursuing new ideas or projects.

Variables of performance, the dependent variables in the model, were measured in terms of absolute growth and profitability. Growth was assessed by two items: the average annual growth in number of employees in the last three years and the average annual growth in sales in the last three years. Profitability was assessed by three items: average annual return on sales (ROS), average annual return on assets (ROA), and average annual return on equity (ROE) in the last three years. Control variables were also used. Respondents checked appropriate boxes for age, size and industry for their organization.

Data Analysis

In order to assure comparability across validation samples, avoid problems with variance differences (Reise, Widaman, & Pugh, 1993) and with differences in item scale lengths, and to reduce the number of needed parameters in structural equation modeling; all variables, except the privatization method code, were standardized by using data from the overall sample. All the corporate entrepreneurship scales were examined for their convergent and discriminant validity by using exploratory and confirmatory factor analysis (Floyd & Widaman, 1995) that showed good validity in terms of coefficients and fit indexes. The model that tested the hypotheses was estimated and re-estimated as a path model (structural equations model) by using EQS (Bentler & Wu, 1998). Structural equation modeling was selected as the most appropriate method of analysis because it allows for simultaneous estimation of multiple and interrelated dependence relationships and it has the ability to represent unobservable (latent) concepts, and accounts for measurement error in the estimation process (Hair et al., 1995). The ERLS estimation method was used because it makes adjustments for skewness and kurtosis that was found in the questionnaire data.

Two key models were estimated: one including the privatization method variable and the other including the privatization time variable. In order to increase the estimation model parsimony, each corporate entrepreneurship and performance model element was represented in the model with a variable that was calculated as an average of retained items. The inclusion of the dummy variable (privatization

method) was done by using a latent factor defined by the dummy variable with fixed coefficient and error terms. In this way the new latent factor replaces a dichotomous variable enabling the estimation of a model with continuous variables (Bentler & Wu, 1998). Stability of relationships among constructs (coefficients of the model) were assessed by comparing coefficients between the two samples, which were derived by the random-half-split, by using multi-group path analysis, as proposed by Singh (1995) and Janssens, Brett, & Smith (1995). Finally, impact of control variables was examined by splitting the overall sample along each control variable and testing differences between the two derived samples.

Findings

The model that depicts hypothesized relationships is depicted in Figure 1. No special problems were encountered during the estimation of the model, but the Lagrange Multiplier Test indicated that significant improvements in the model fit would be achieved when including correlations among the corporate entrepreneurship measures and between the performance measures Multicollinearity was found among the predictors and the addition of the correlations did not change the hypothesized relationships in the model. The resulting two models both showed a good fit[2] (Model 1: with privatization method: NFI 0.97, NNFI 0.94, CFI 0.98, RMSEA 0.07; Model 2: with privatization time: NFI 0.98, NNFI 0.94, CFI 0.99, RMSEA 0.09). Structural equations with standardized coefficients are shown in Table 1.[3]

Hypotheses Testing

Privatization and Corporate Entrepreneurship. The first set of hypotheses refers to direct and indirect relationships between privatization and corporate entrepreneurship elements (new venture formation, product/service innovation, process innovation). As indicated in Table 1, the privatization method and time are not significantly directly related to corporate entrepreneurship activities, except the privatization method-product/service innovation relationship that is positive and significant (standardized coefficient 0.08). These results indicate no support for Hypotheses 1a and 2a.

When indirect relationships are considered, results indicate that privatization method, but not time, is positively and significantly indirectly related (through the mediation of organizational support[4]) to all three corporate entrepreneurship elements. These results are in some support of Hypothesis 1b (for privatization method) but not of Hypothesis 2b (for privatization time).

Direct impact of privatization on performance. The second set of hypotheses examined the direct impacts of privatization on growth and profitability. The privatization method was found to be positively and significantly related to growth (s. coef. 0.36) and profitability (s. coef. 0.21). Privatization time was found to be positively and significantly related to profitability (s. coef. 0.23), but not growth

Table 1: Model 1 & Model 2—Structural Equations with Total Main Effects (Direct and Indirect) (Standardized Coefficients)

Predictors	Dependents					
	Organizational Support	New Venture Formation	Product/Service Innovation	Process Innovation	Growth	Profitability
Model 1 (N = 477)						
Privatization method	0.10*	0.06 (0.03*)	0.08* (0.04*)	0.01 (0.06*)	0.36* (0.03*)	0.21* (0.03*)
Organizational Support		0.33*	0.39*	0.54*	(0.15*)	(0.15*)
Corporate Entrepreneurship						
New Venture Formation					0.13*	0.04
Product/Service Innovation					0.11*	0.16*
Process Innovation					0.12*	0.14*
Error (direct)	0.96	0.94	0.91	0.84	0.88	0.93
R-squared (direct)	0.01	0.11	0.16	0.29	0.22	0.13
Model 2 (N = 232)						
Privatization time	0.06*	0.05 (0.02)	−0.04 (0.02)	0.01 (0.03)	0.06 (0.01)	0.23* (0.01)
Organizational Support		0.30*	0.39*	0.53*	(0.11*)	(0.13*)
Corporate Entrepreneurship						
New Venture Formation					0.10*	0.07
Product/Service Innovation					0.06	−0.06
Process Innovation					0.11	0.25*
Error (direct)	0.99	0.95	0.92	0.85	0.98	0.94
R-squared (direct)	0.00	0.10	0.15	0.25	0.05	0.12

Notes: Direct effects displayed (indirect effects in parenthesis).
*$p < 0.05$ (one-tailed, $|t| > 1.64$).

(coefficient low and non-significant). These results are in full support of Hypotheses 3a, 3b, and 4a, but not of Hypothesis 4b.

Indirect impact of privatization on performance. The third set of hypotheses examined indirect impacts (with the mediation of corporate entrepreneurship activities) of privatization on growth and profitability. The privatization method was found to be somewhat indirectly related to growth and profitability (both s. coef. positive and significant, but not high, 0.03), whereas no such relationships were found for privatization time. These results are in some support of Hypotheses 5a and 5b, but not in support of Hypotheses 6a and 6b.

Some additional findings that were not hypothesized emerged. Organizational support was found (as expected) to have important indirect impacts on growth and profitability in both models. Direct influences of corporate entrepreneurship activities on growth and profitability were found positive and significant in Model 1 (with privatization method, N=477), with exception of the new venture formation-profitability relationship. In contrast, in Model 2 (with privatization time, N=232, which includes the extended state control group of enterprises) these relationships were found to be weaker: strong impact of process innovation on profitability, moderate impact of new venture formation and process innovation on growth, weaker impact of new venture formation on profitability and product service innovation on growth, and even weak negative impact of product/service innovation on profitability.

Additional comparison of the private control and the extended state control group. In order to additionally test the impact of privatization method, coefficients and intercepts of the model without the privatization variable were compared between the private control and the extended state control group (see Table 2). Private control group showed somewhat higher levels of organizational support, new venture formation, and product/service innovation (intercepts 0.08, 0.04, and 0.05 respectively; all non-significant), but not process innovation (intercept 0.01, non-significant), in comparison to the extended state control group of firms (intercepts fixed to 0). The private control group had significantly higher levels of growth (intercept 0.25) and profitability (intercept 0.15) than the extended state control group. These results are in line with the findings of the Model 1. When coefficients were compared, some significant differences were found between the two privatization methods. The parameters for the following relationships were found more strongly positive for the private control group vs. the extended state control group: new venture formation-growth, process innovation-growth, product/service innovation-profitability, and indirect effects of organizational support on growth and profitability.

Discussion And Conclusions

This study has demonstrated that the privatization method in terms of the share of post-privatization private ownership tends to be a good direct predictor of organi-

Table 2: Private Control Group and Extended State Control Group—Comparison of Coefficients

Predictors	Dependents				
	New Venture Formation	Product/Service Innovation	Process Innovation	Growth	Profitability
Private Control (N = 245)					
Intercept	0.04	0.05	0.01	0.25*	0.15*
Organizational Support	0.35*	0.40*	0.54*	(0.21*)	(0.18*)
Corporate Entrepreneurship					
New Venture Formation				0.17*	0.03
Product/Service Innovation				0.18*	0.32*
Process Innovation				0.15*	0.07*
Error (direct)	0.94	0.91	0.84	0.94	0.94
R-squared (direct)	0.12	0.16	0.30	0.11	0.12
Extended State Control (N = 232)					
Intercept (fixed to 0)	0.00	0.00	0.00	0.00	0.00
Organizational Support	0.31*	0.39*	0.53*	(0.11*)	(0.13*)
Corporate Entrepreneurship					
New Venture Formation				0.11*	0.09
Product/Service Innovation				0.06	−0.06
Process Innovation				0.11*	0.25*
Error (direct)	0.95	0.92	0.85	0.98	0.96
R-squared (direct)	0.09	0.15	0.28	0.04	0.08

Notes: Intercepts and direct effects (standardized coefficients) displayed (indirect effects in parenthesis).
Significant differences in coefficients ($p < 0.05$) are underlined.
*$p < 0.05$ (one-tailed, $|t| > 1.64$).

zational growth and profitability. The privatization method can have also some indirect influence on growth and profitability. These indirect impacts on performance levels can be attributed to the effects of the privatization method on corporate entrepreneurship processes, which also drive performance. The privatization method tends to spur organizational and management support for corporate entrepreneurship and corporate entrepreneurship activities (new venture formation, product/service innovation, and process innovation), which are beneficial for organizational growth and profitability. The privatization method (with a higher share of private ownership) can be particularly beneficial for growth and profitability by enhancing impacts of corporate entrepreneurship activities (direct impacts of new venture formation and process innovation on growth, and indirect impacts of organizational support on growth and profitability). In addition, organizational support was found an important mediator in the privatization method-corporate entrepreneurship relationship.

On the other hand, privatization time in terms of the relative speed of finalization of formal privatization procedures in the realm of a single privatization method appears to be an important direct predictor of profitability, but a weak driver of growth. Indirect effects with the mediation of corporate entrepreneurship of privatization time on the performance elements were not found in this study. These findings have implications for research, theory, and practice. The model developed in this study emphasizes the necessity of examining privatization processes and their impacts on performance in light of entrepreneurial intermediate effects and outcomes, which are facilitated or inhibited by the structuring of the post-privatization ownership.

An important perspective has been gained by doing a study in a transition economy of Central and Eastern Europe. Even if it has been recognized that privatization processes differ between developed and developing countries (Zahra et al., 2000), this study demonstrated that corporate entrepreneurship-related privatization processes theory developed mainly on the basis of the western theory may well work also in other contexts and that it can be valuable in broadening and strengthening privatization and corporate entrepreneurship theory with the insights from countries outside North America and Western Europe.

A variety of practical implications can also be drawn on the basis of this study, especially for policy makers in countries with moderate or low shares of private ownership. Above all, practitioners need to be aware that the privatization method can be an important driver of corporate entrepreneurship and organizational performance. Privatization methods that assure a high level of private ownership will more likely stimulate the formation of governance and control mechanisms which will trigger corporate entrepreneurship activities, such as new venture formation, product/service and process innovation, and consequently improve growth and profitability of privatized enterprises, as well as the economy as a whole.

Slovenia has been considered, when compared to other transition economies, a success story in terms of economic development. As the findings of this study

indicate, however, the country has chosen a sub-optimal privatization method, which resulted in ownership structures with substantial state involvement that inhibit faster development of corporate entrepreneurship activities and are not beneficial for organizational growth and profitability. Because of a high proportion of enterprises that have undergone privatization through the redistributive privatization process in the economy, Slovenia is probably achieving sub-optimal levels of GDP growth and wealth creation. Countries that went through a transition from the controlled to the market-oriented economy seem to share a common characteristic of making politically acceptable privatization decisions (Wiseman, 1991), at the expense of economic performance. Countries that are in earlier stages of privatization processes, such as Bosnia and Herzegovina, Federal Republic of Yugoslavia, Former Yugoslav Republic of Macedonia, and Albania, should be cautious in applying the Slovenian-type redistributive method and other methods that do not ensure good development of performance-driving mechanisms, incentive systems, and processes and activities, such as corporate entrepreneurship.

Limitations and Future Research Needs

The model advanced in this study has some limitations. Because the focus has been on activities and to assure clarity, a limited number of corporate entrepreneurship dimensions were included. In future research a more comprehensive model may include other dimensions of the corporate entrepreneurship construct, such as risk-taking, self-renewal and competitive aggressiveness, and dimensions of corporate entrepreneurship organizational and environmental antecedents.

Because of the predominant use of the cross-sectional study design, the direction of causality among the key constructs needs to be inferred with caution. The time lag between privatization and other elements in the model is short with corporate entrepreneurship and performance elements being assessed in the same time period. As previous corporate entrepreneurship research suggests (Zahra & Covin, 1995; Wiklund, 1999), the effects of corporate entrepreneurship on performance tend to be stronger after a few years than when examined in the same time period. Examination of the longitudinal component in future research may give even stronger support for the cross-sectional findings of this study.

The informant bias and use of perceptual measures in assessing corporate entrepreneurship and performance elements may be another limitation. Data was collected from only one person from each respondent firm with no testing for inter-informant reliability. On the other hand, no perceptual data was used in measuring privatization elements, leaving out several privatization process details. In future research collection of perceptual, behavioral and financial data about resource allocations (Lyon et al., 1999) should be considered. Finally, this study used data from one economy (Slovenia). The generalizability of findings of this study may be further extended by conducting cross-national comparisons among economies that went through privatization processes. In this way country specific

micro and macro economic factors can be taken into consideration and included in the model.

Privatization is an important driver of economic activity and performance. Despite its recognized linkage to corporate entrepreneurship, research has devoted minimal attention to explicitly investigating relationships among privatization, corporate entrepreneurship and performance elements. This article contributes to a better understanding of privatization driven corporate entrepreneurship and performance by developing and testing a normative model. The findings of this study demonstrate that the privatization method that results in a higher share of private ownership makes a difference in organizational growth and profitability, particularly in terms of its strong direct effects, as well as in the mediation of corporate entrepreneurship activities that include new venture formation, product/service innovation, and process innovation. In addition, privatization time tends to be a strong predictor of subsequent organizational profitability.

Endnotes

1. Even if these hypotheses seem obvious, it is important to examine direct relationships in addition to indirect relationships between privatization and performance elements at least for methodological reasons (to make estimates by taking into account the direct path between privatization and performance in order to properly partition corporate entrepreneurship-related and corporate entrepreneurship-non-related effects of privatization on firm performance).
2. Usually multiple indices are considered to assess the model fit. The Chi-square test was not considered in this study because it is sensitive to sample size (Bentler & Bonett, 1980). Four other fit indices are reported: NFI (Normed fit index), NNFI (Non-normed fit index), CFI (Comparative fit index), and RMSEA (Root-mean-square error of approximation). NFI, NNFI, and CFI are not sensitive to sample size (Bentler, 1990). Values of these indices that are close to 0.90 or over indicate a good model fit (Hair et al., 1995). For RMSEA, values less than 0.05 indicate a good model fit (Schumacker & Lomax, 1996).
3. Results are illustrated in a tabular form rather than in a graph form in order to show not only direct effects, but also indirect effects in the model.
4. Organizational support tends to be a strong predictor of corporate entrepreneurship activities.

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