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Strategies, Decentralization, and Controls in Internationalized Finnish Firms¹

ABSTRACT

Data collected from 103 senior managers from 60 internationalized Finnish firms suggests that, on average, headquarters (HQs) have placed a very high weight on formal controls, and selected relatively high degrees of decision-making decentralization and multidomestic strategy. The degree of multidomestic (/global) strategy appears to partially impact the relative weight placed on controls in the performance evaluation of overseas managers. While an indirect link is not detected through decentralization, a relatively small, but statistically significant direct link is found between the degree of multidomestic (/global) strategy and the relative weight placed on financial (/operational and behavioral) controls. This suggests that HQs may use controls to facilitate the implementation of a selected strategy, even if the degree of decentralization is not influenced by the strategy

Key words: *controls; decentralization; managerial performance evaluation; and multidomestic and global strategies*

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INTRODUCTION

Studies on internationalized firms make an explicit distinction among various types of strategies based on how various activities are coordinated and configured between headquarters (HQs) and foreign subsidiaries (Porter 1986; Roth et al. 1991; and Roth 1992). While many different strategies exist, prior surveys primarily support multidomestic and global strategies (Roth 1992; and Leong and Tan 1993). When the configuration of various activities is geographically dispersed and the rate of coordination of these activities is low, there is a high degree of multidomestic strategy. Conversely, when the configuration of various activities is geographically concentrated and the rate of coordination is high, there is a high degree of a simple global (hereafter global) strategy. (Porter 1986)

Management literature proposes that controls should be modified to the requirements of specific strategies to lead to competitive advantage and superior performance (Lorsch et al. 1973; Dermer 1977; Doz 1986; Dymont 1987; Goold et al. 1987; Bartlett et al. 1989; Chandler 1991; Anthony et al. 1992; and Hill et al. 1987, 1992). Our knowledge of the relations between controls and strategies is still limited (Langfield-Smith 1997), although a few studies have empirically supported direct links between controls and business strategies (Simons 1987), and between controls and competitive strategies (Govindarajan & Gupta 1985; Govindarajan 1988; Govindarajan & Fisher 1990; and Ittner et al. 1997). Whether controls facilitate the execution of a selected strategy in a multinational setting is even less clear, due to a lack of empirical findings.

This study takes the first step in this direction by first describing senior managers' reliance on formal controls, the degree of multidomestic (/global) strategies, and the degree of decision-making decentralization. Then a systematic analysis is conducted to determine whether there are any links between senior managers' use of controls and the degree of multidomestic strategy either directly or indirectly through decentralized decision making. The empirical analysis is conducted in internationalized Finnish firms.²

The focus of this study is on formal controls. While internationalized firms tend to use a combination of formal and informal control mechanisms³ (Jarillo & Martinez 1990; Bartlett and Ghoshal 1989; and Marschan 1996), senior managers of internationalized Finnish firms have been found to place a slightly higher importance on formal controls (Björkman & Lindqvist 1991).

² Internationalized firms are defined as firms that have at least one foreign subsidiary with a greater than 50% interest held by the parent company. Internationalized industrial firms are required to have at least one foreign manufacturing subsidiary.

³ Informal control mechanisms include, e.g., informal discussions, socialization of top managers, and corporate culture.

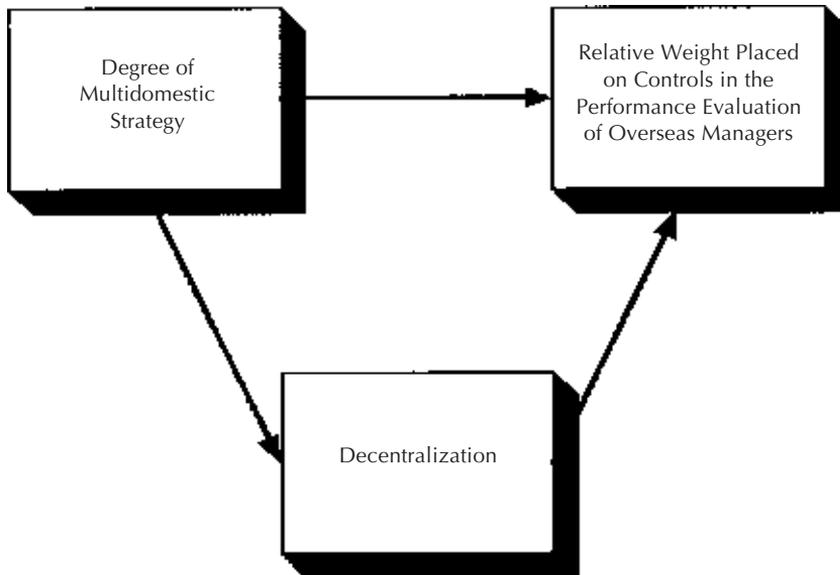


FIGURE 1. The Research Framework.

Since the interest in various types of performance measures has increased (Kaplan 1992), this study analyzes senior managers' reliance on formal controls on the basis of relative weights (see Ittner et al. 1997 and Keating 1994) placed on financial, operational, and behavioral controls.⁴ The focus of the study is on one of the key management control functions, notably on the performance evaluation of overseas managers⁵ (who may include host country nationals and expatriates, i.e., employees on foreign assignments).⁶ Figure 1 presents the framework of this study.

The following are the key contributions of this study: First, the study provides such empirical findings on the strategies and control practices of internationalized Finnish firms that should be interesting to both researchers and business managers. Second, it extends the empirical strategy-controls analysis to new strategy dimensions. While prior evidence is mostly on business and competitive strategies, this survey focuses on Porter's (1986) multidomestic and global strategy dimensions.

⁴ Since management accounting literature does not provide any standard classification of various types of controls, one was integrated for the purposes of this study on the basis of prior international accounting literature.

⁵ Subsidiary manager performance evaluation may differ from subsidiary performance evaluation, which is beyond the scope of this study.

⁶ Whether expatriates are evaluated differently than host country nationals is beyond the scope of this study. Tahvanainen (1998) has researched that question and found no difference in her case Nokia Telecommunications.

The reminder of this study is organized in four sections. The first section defines the selected variables (figure 1) and presents the theoretical framework and hypotheses to be tested. The second section describes the sample, measures, and statistical methods. The third section presents the empirical tests of the hypotheses. The conclusions, the limitations of the study, and possible future research topics appear in the fourth section.

THEORETICAL FRAMEWORK AND HYPOTHESES

It is generally accepted that controls are used differently in different firms (Otley 1980; Merchant 1981; and Emmanuel et al. 1991). A series of studies suggests that some of the variation in control practices may be explained by differences in strategies (Lorsch et al. 1973; Dermer 1977; Gupta et al. 1985, Doz 1986; Dymont 1987; Goold et al. 1987; Simons 1987, Bartlett et al. 1989; Chandler 1991; Anthony et al. 1992; Hill et al. 1987, 1992, and Ittner et al. 1997). A firm's strategy is important because it may (either consciously or unconsciously) affect how senior managers perceive various types of controls. While several factors probably influence the performance evaluation of managers, the general consensus is that it should be based on those controls that measure managers' performance with a reasonable degree of accuracy and objectivity.

Whether managers' output or behavior can be measured more accurately should affect the weight placed on various controls (Ouchi et al. 1975). If overseas managers' contribution to the financial output of their subsidiary or company can be assessed in a reasonably accurate and objective way, senior managers are likely to find it more useful to place a high relative weight on profit management, i.e., on financial controls such as profit, return on investment (ROI), and residual income (RI). In other words, senior managers can consider financial controls as a top priority for themselves, they can use financial controls to set meetings with direct subordinates, they pay more attention to financial reports, they consider financial controls to reflect whether managers are succeeding or failing, and they let financial controls affect overseas managers' rated performance (Simons 1987, 1994).

If overseas managers' financial output cannot be assessed in a reasonably accurate and objective way, senior managers will probably perceive that it is useful to place a high relative weight on operational output controls (e.g., market share, production volume, and quality) and/or behavioral controls (achieve cost budgets and production standards, propose expenditure programs, follow rules and procedures, etc.).⁷ However, since managers' percep-

⁷ The definition of behavioral controls used here is intended to be fairly narrow, because of the focus on formal controls in a multinational setting. Note also, the following distinction made in this study: profit budgets are included in financial control, but the *achievement* of cost budgets are included in behavioral control.

tions differ, the selected practices may differ within each firm and similar firms (Borkowski 1990).

The link between the degree of multidomestic strategy and senior managers' use of controls can be either direct or indirect. Hypothesis 1 examines the direct link. It proposes that in firms, which have a high degree of multidomestic (/global) strategy, senior managers find it useful to place a high relative weight on financial (/operational and behavioral) controls such as profits and ROI. This is, because, by definition, multidomestic strategy involves a low level of senior managers' coordination, which enhances the accurate and objective measurement of the financial contributions of overseas managers.

Virtanen's (1985) study on the 50 largest industrial firms in Finland found that managers' performance evaluation was greatly influenced by financial results. The Björkman & Lindqvist (1991, 118–119) survey conducted in 55 internationalized Finnish firms suggests that senior managers use both financial and non-financial measures in assessing foreign subsidiaries, but place more importance on the former.

While there is no empirical evidence on the relation between controls and multidomestic strategy, Dymont (1987) proposes substantial use of profit and loss statements and balance sheets in the management of locally coordinated multinational companies. Both Dymont (1987) and the AAA's Committee Report (1973) theorize that a profit center basis for performance evaluation does not work well in globally integrated and coordinated companies. Dymont argues in favor of a few critical objectives, such as internally oriented, quantified, and time-related statements of what must be accomplished to achieve the selected strategic excellence position. The AAA's Committee Report proposes evaluation via budget variances, non-financial quantitative measures, management and performance audits, and "point systems".

These normative arguments lead to the following hypothesis: *There is a positive direct link between the degree of multidomestic strategy and the relative weight placed on financial controls in the performance evaluation of overseas managers.*

Hypothesis 2 examines whether part of the association between strategy and senior managers' use of controls could be indirect through the effect of strategy on decentralized decision making. While various structural forms exist in multinational companies, decentralized decision making is one of the key dimensions of less-hierarchical structures found in internationalized firms.⁸ Decentralized decision making refers to the extent to which various decisions are made by subsidiary managers rather than by senior managers in the parent company. Virtanen's (1984) survey of the 50 largest Finnish industrial enterprises suggests that divisional managers

⁸ According to Marschan (1996), the other dimensions of less-hierarchical structures are the delayering of organizational levels, dispersal of key functions across units in different countries, de-bureaucratization of formal rules and procedures, and differentiation of work, responsibility and authority among subsidiary units.

may have substantial operating autonomy, but restricted investment autonomy and centrally coordinated financial decisions. A similar decision making pattern has been discovered among the subsidiary managers of internationalized Finnish firms (Kihn 1996).

Various management studies find that organizational structure (often defined as the degree of decentralization) is affected by various strategy dimensions (Chandler 1962; Stopford et al. 1972; Rumelt 1974; Channon 1973; Dyas et al. 1976; Chenhall 1979; Suzuki 1980; Byrt 1981; Egelhoff 1988; and Hamilton et al. 1992). Furthermore, studies on internationalized firms suggest that when the degree of multidomestic (/global) strategy increases, HQs find it useful to delegate more (/less) decisions to foreign subsidiary managers (Doz 1986; Porter 1986; Dymment 1987; and Bartlett and Ghoshal 1989).

A series of accounting studies suggest a relationship between decentralization and controls, both in domestic firms (e.g., Gordon and Miller 1976; Dermer 1977; Waterhouse and Tiessen 1978; Otley 1980; Virtanen 1985; Emmanuel et al. 1991; and Anthony et al. 1992) and internationalized firms (Hawkins 1965; Mauriel 1969; Drake and Caudil 1981; and Schweikart 1986). These studies propose that a higher (/lower) degree of decentralization provides overseas managers with greater (/less) responsibility over planning and controlling activities, and a greater (/less) influence on the financial performance of their subsidiaries. A clear-cut dichotomy exists between foreign subsidiaries. Moreover, there is a close correlation between subsidiary activities and the responsibility of the subsidiary manager for these activities (AAA 1973, 158). These conditions enhance more accurate and objective assessment of the financial contribution of overseas managers. Senior managers tend to hold subsidiary managers accountable for their entity's financial performance (Mauriel 1969; and Schweikart 1986). Consequently, a profit center basis may be viewed as very useful for performance evaluation. Hypothesis 2 expects that *the degree of multidomestic strategy induces decentralization and, the link between multidomestic strategy and senior managers' relative weight placed on financial controls is, in part, due to the effects of decentralization.*

METHOD

Sample

A population of 176 participants in 102 firms was initially identified on the basis of the following criteria: 1) the respondents are responsible for the performance evaluation of overseas managers and are Finnish speaking; 2) the firms are headquartered in Finland; 3) the firms have at least one foreign subsidiary in which an over 50% interest is held by the Finnish parent company; 4) the industrial firms have at least one foreign manufacturing subsidiary, and 5) the

firms are in the manufacturing, banking, and consulting sectors.⁹ The manufacturing firms were selected on the basis of Mikkonen's (1990) study, the consulting firms were selected based on information received from the Finnish Association of Consulting firms, and banks were selected on the basis of common knowledge.

Since the identified population was not very large for the purposes of survey research, a mail questionnaire was administered to the whole population in the spring of 1995 (see Table 1, Panel A). Therefore, the selection of the target sample was not random. Since strategies of complex multidivisional companies can be differentiated (Ghoshal and Nohria 1989), and because the performance evaluation of overseas managers is likely to take place at the divisional (or business group) level in multibusiness firms, the survey was expanded from senior management at HQs to senior managers at divisions (or business groups) in diversified companies.¹⁰

The second column in Table 1, Panel A illustrates the identification process of the participating executives. The questionnaire was sent directly to corporate directors in smaller firms and to business group directors in multi-business firms. The directors were identified based on telephone interviews and information derived from the annual reports.

To maximize the survey response rate, a slightly modified version of Dillman's (1978) Total Design Method was applied during the mail survey process. The initial questionnaire request and three follow-ups yielded 103 (59%) usable, mail-returned questionnaires from about 60 firms. This response rate can be considered relatively high. The mail questionnaire collected data to measure the independent variables (strategy and decentralization) and the dependent variable (relative weight placed on financial controls).

On average, the participants were 49 years old and had worked for their current company 15 years. Of the participants 4.9% were females and 95.1% males. Eighty-six percent of the respondents worked for a manufacturing firm, 10.8% for a consulting firm, and 3.9% for a bank (see Table 1, Panel B for further details).

9 Management accounting studies often focus on manufacturing firms only. Banking and consulting sectors were added to the sample in this study because of relatively recent managerial performance problems in the foreign units of some Finnish banks and in order to increase the sample size and the statistical power of the results.

10 Another alternative could have been to analyze the scores of overseas managers. The indirect measurement of the dependent variable (i.e., relative weight placed on financial controls by senior managers) would, however, have reduced the credibility of results.

TABLE 1. Sample Information.

Panel A: Sample Reduction Process	Frequency of Firms	Frequency of Participants
Finnish firms with at least one overseas subsidiary with an over 50% interest held by the Finnish parent:		
Manufacturing companies	83	154
Consulting companies	16	16
Banks	3	6
	<u>102</u>	<u>176</u>
Less: Nonrespondents, because of		
Merged firms	8	0
Firms/divisions without active operations	1	2
Firms/divisions without active overseas operations	6	6
Firms with extensive restructuring	1	1
Firms/div. without Finnish speaking key person	1	9
Contact person not reached	<u>2</u>	<u>6</u>
= Actually qualifying target sample:	83	152
Less: Other non-respondents	<u>23</u>	<u>48</u>
= Respondents	60	104
Less: an outlier		<u>1</u>
Actual sample		<u>103</u>
Panel B: Industry Information	Frequency	Percentage
- Metals	28	27.2
- Wood, paper, or board	16	15.5
- Glass, steal, etc.	9	8.7
- Consulting	8	7.8
- Chemical	6	5.8
- Oil, coal, or nuclear	6	5.8
- Plastic	6	5.8
- Food, drink, or tobacco	5	4.9
- Banking	4	3.9
- Textile, clothing, leather, or shoes	3	2.9
- Furniture	3	2.9
- Electronics, computer, etc.	3	2.9
- Printing	1	1.0
- Mining	1	1.0
- Energy and water	1	1.0
- Not available	3	2.9

Analysis of the external validity and generalizability of the results

The external validity question is related to sampling theory and is concerned about whether the research findings of a sample can be statistically generalized to a larger population (see e.g., Jaeger 1990, 122–130; and Lähteenmäki 1992, 299). Since the selection of the target sample was not random, this study made an attempt to analyze sample randomness ex post in several ways.

First, an attempt was made to identify reasons for not responding. The questionnaire was not returned by 72 respondents (i.e., in 41% of the cases). It was possible to identify reasons for not responding in 42 cases.¹¹ The identified reasons, although not necessarily comprehensive, do not indicate a systematic bias in the actual sample.

Second, a series of statistical tests of essential and available key variables was conducted to analyze whether the actual sample could be representative of the target sample. Since a significant obstacle in this field is the lack of readily available and complete data sets, objective data was collected from various documentary sources (such as relevant 1989–93 annual reports; company brochures; Lantto 1990–95; and Thilman 1990, 1992), and in a few cases; directly from the respondents.

As shown in Table 2, Panel A, descriptive statistics were used to shed light on the fluctuations between the participating and non-participating firms on a number of variables. Turnover, 5-year average turnover, number of employees, and 5-year average number of employees were used to indicate the size of the firms or divisions. Total frequency of foreign subsidiaries and frequency of foreign subsidiaries on different continents were used as rough proxies of the extent of the firm's international business.

Next, whether the observed fluctuations between the two groups were small chance fluctuations or sufficiently large differences was tested with a 2-sample t-test, which generally indicates whether two samples have been drawn from different populations. The null hypothesis (H0) tested was: There is no difference between the means of the actual and the non-responding sample; that is $\mu_1 - \mu_2 = 0$. The alternative hypothesis (HA) was: There is a difference between the means of the actual and the non-responding sample; that is $\mu_1 - \mu_2 \neq 0$. As the final column in Table 2, Panel A illustrates, the conducted tests provided statistically insignificant values for all the listed variables at the 0.05 alpha level. This suggests an absence of response bias in regards to size and extent of international businesses.

Finally, a goodness-of-fit-test, notably Chi-Square, was employed to analyze such categorical data as broad industrial sectors and sexes of respondents (see Table 2, Panels B and C). The null hypothesis (H0) was: There is no difference between the probability of choosing the actual sample and the probability of choosing the nonrespondent; that is $p = q = 0.50$. The alternative hypothesis (HA) was: There is difference between the probability of choosing the ac-

11 As Column 2 in Table 1, Panel A shows, 24 (33% of) non-respondents from 19 firms did not actually qualify to the survey for the following reasons: mergers, lack of active operations, lack of active overseas operations, extensive restructuring, the appropriate contact person was not Finnish speaking, or the questionnaire did not reach the qualifying contact person (due to layoffs, long-term illnesses, or organizational restructuring). Moreover, the following excuses were given for not responding by 18 (25% of) non-respondents during the follow-up calls: Too busy (9), size of overseas operations too small (4), travelling a lot (3), not interested (1), and had recently received too many mail questionnaires (1).

TABLE 2. Analysis of the External Validity and Generalizability of the Results.

Panel A: Descriptive statistics and two-sample t-tests for the qualifying targeted and actual operating divisions or firms (N1=104, N2=152)									
	Mean	Median	Std	Min	Max	Q1	Q3	N	t
1993 Sales	2477	933	5546	15	49100	268	2869	89	1.54
(mFIM)	2193	946	4816	15	49100	271	2544	122	
5-Year Avg.	2003	760	3540	0	22978	247	2220	70	1.02
Sales (mFIM)	1853	1010	3085	22	22978	286	2189	102	
Number of	1954	1260	1903	57	8163	358	334	89	0.54
Employees	1892	1342	1778	57	8163	385	2929	116	
5-Year Avg.	2060	1322	2061	29	8989	538	3231	62	0.14
No. of	2018	1400	1942	29	8989	593	3132	83	
Employees									
Foreign subsidiaries:									
– total	9.20	4.5	11.1	1	58	2	11.3	94	0.05
	9.16	4	12.3	1	65	2	11	135	
– North	1.6	0	3.7	0	32	0	2	94	1.26
America	1.4	0	3.3	0	32	0	2	135	
– Europe	6.6	4	7.3	0	34	2	9	94	–.18
(excl. Finland)	7.5	3	3.9	0	40	2	9	135	
– Asia	0.6	0	1.4	0	8	0	1	94	–.23
	0.6	0	1.7	0	13	0	0	135	
– Australia	0.3	0	1.0	0	9	0	0	94	0.4
	0.2	0	1.0	0	9	0	0	135	
– South	0.1	0	0.6	0	5	0	0	94	–1.00
America	0.2	0	1.3	0	14	0	0	135	
– Africa	0.0	0	0.2	0	1	0	0	94	–0.79
	0.1	0	0.4	0	4	0	0	135	
Panel B: The industries of the qualifying target sample and the actual precoded sample									
		Manufacturing	Banking	Consulting	Total				
Frequency in final		132	5	15	152				
target population									
(Percentage)		86.84%	3.29%	9.87%	100%				
Frequency among		90	4	7	101				
coded participants									
(Percentage)		89%	4%	7%	100%				
Expected frequency		88	3	10	101				
Chi-Square = $\text{SUM}[(O-E)*(O-E)/E]$									
= $\frac{(90-88)(90-88)}{88} + \frac{(4-3)(4-3)}{3} + \frac{(7-10)(7-10)}{10} = 1.279 \text{ n.s.}$									

TABLE 2 (cont.)

Panel C: The sex distribution of qualifying targeted (152) and usable precoded responses (101)			
	Female	Male	Total
Frequency in final target population (Percentage)	9 5.92%	143 94.08%	152 100%
Frequency among coded participants (Percentage)	6 5.94%	95 94.06%	101 100%
Expected frequency	6	95	101
Chi-Square = $\frac{(6-6)(6-6)}{6} + \frac{(95-95)(95-95)}{95} = 0$ n.s.			

tual sample and the probability of choosing the nonrespondents; that is $p \neq q \neq 0.50$. The data suggests that all industry sectors and sex values are normally distributed in the sub-sample. Therefore, the conclusion is that the statistical analysis of essential and available key variables did not indicate any statistically significant differences at the 0.05 alpha level.

Measures

The relative weight placed on financial controls by senior managers was assessed with a five-item five-point Likert scale. Since all possible controls (applied by the over 100 managers) could not be identified and included in the measurement instrument, the following three types of controls were included: financial controls (e.g., profit, ROI, and RI); operational output controls (market share, production volume, quality, etc.); and behavioral controls (achieve production standards and cost budgets, propose expenditure programs, follow rules and procedures, etc.).

In line with Simons (1987, 1994) and Keating (1994), the respondents were asked to indicate: 1) the importance of various types of controls, 2) the extent to which face-to-face meetings are arranged on the basis of those controls, 3) the extent to which the controls reflect successful management, 4) the extent to which the respondents pay attention to controls, and 5) the controls' impact on managers' rated performance. Each item was rated on a scale ranging from (1) "not at all important" ("not at all") to (5) "very important" ("very much"). After the values of financial controls were divided by the values of operational output controls and behavioral controls for each of the five items, the obtained five values were averaged. Low val-

ues indicate a low relative weight on financial controls, and vice versa. For this measurement instrument, the Cronbach (1951) alpha statistic of internal reliability of 0.83 was quite high.

Questions similar to Roth and Schweiger's (1991) and Roth's (1992) were selected to measure the degree of multidomestic strategy in terms of the coordination and configuration of activities. In the first part, the executives were asked to assess the extent of senior managers' coordination of 14 activities. In the second part, executives were asked to indicate the extent to which the same 14 activities were performed at a single geographic location for the entire company/business unit. Both parts had the same five-point scale ranging from (1) "totally" to (5) "not at all". Afterwards, the obtained values were coded in the following way: 1 = 5, 2 = 4, 3 = 3, 4 = 2, and 5 = 1. Then the values for each activity were summed and averaged by participant to provide an overall international strategy index, with low scores indicating a low (high) degree of multidomestic (/global) strategy and vice versa. For this measurement instrument, Cronbach's alpha was 0.90.

The degree of decentralization was measured by applying a slightly modified version of Vancil's (1979) well-tested instrument, which is rooted in the famous Aston Group approach (see Pugh et al. 1968; Merchant 1981; Chenhall and Morris 1986; and Keating 1994.). The executives were asked to indicate "to what extent decisions are delegated to overseas subsidiary managers" on a five-point ordinal scale ranging from (1) "not at all" to (5) "totally". After the items were summed and averaged, the higher the score, the greater the autonomy of overseas subsidiary managers. For this instrument, the Cronbach alpha was 0.91.

Statistical methods

In contrast to prior theoretical and small sample studies, this study uses a relatively large sample and standard statistical methods best suited to analyze the strength of relations in a more thorough and meaningful way. Table 3 presents descriptive statistics for the measured variables. Since the sample size is large enough, and all variables have unimodal and sufficiently normal sample distributions, inferential statistics can be utilized in the data analysis.

TABLE 3. Descriptive Statistics for the Variables.

	Mean	Standard Deviation	Theoretical Range	Actual Range	N
Relative weight on financial controls	0.56	0.09	0.10–2.50	0.32–0.96	103
Degree of multidomestic strategy	3.11	0.55	1–5	1.96–4.32	99
Degree of decentralization	3.17	0.64	1–5	1.52–4.69	96

TABLE 4. Zero-order Correlations among Variables.

Variables:	Relative weight placed on Financial Controls	Degree of Multidomestic Strategy
	1.	2.
1. Relative weight placed on financial controls:	-	-
2. Degree of multidomestic strategy	0.178*	-
3. Degree of decentralization:	0.168*	0.359***

*p < .05, **p < .01, and ***p < .005 (one-tailed test)

To test the direct effect of strategy on controls (hypothesis 1), standard Pearson’s correlation coefficients (r) were used. Table 4 presents the results.

A path analysis (see e.g. Wright 1934; Neilimo 1975; and Chenhall et al. 1986) was used to test the indirect effect on the relative weight placed on financial controls of the strategy acting through decentralization (hypothesis 2). Figure 2 presents the path model. The degree of multidomestic strategy is denoted X1, the degree of decision-making decentralization is X2, and the relative weight placed on financial controls is X3. The residual variables (Rk) represent the unexplained variances of the intervening and independent variables.

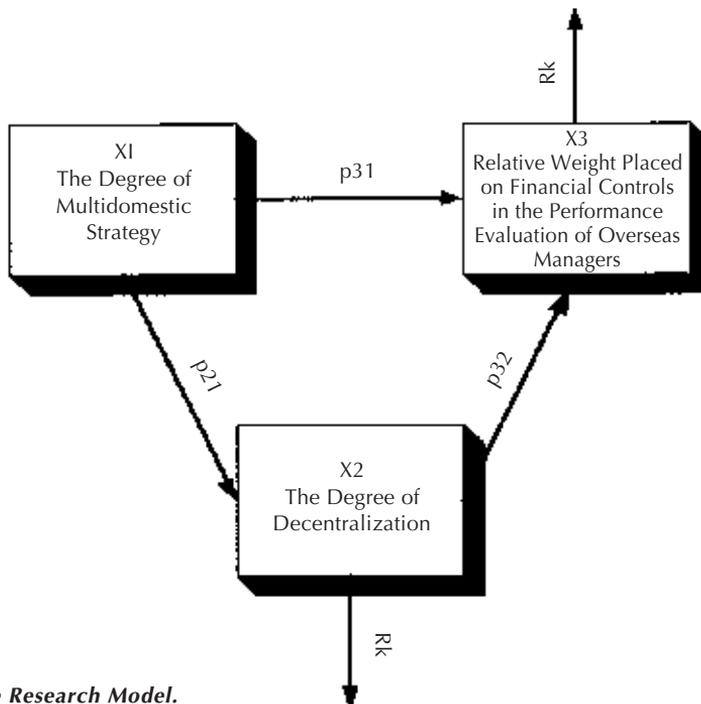


FIGURE 2. The Research Model.

In the path model, the relationships among variables are specified by a series of path coefficients (π_j). Since the degree of multidomestic strategy is the only antecedent variable of decentralization, path p_{21} is the zero-order correlation (i.e., r_{12}) between the degree of multidomestic strategy and the degree of decentralization (see Table 3). The paths p_{31} and p_{32} are equivalent to the standardized beta coefficient found by regressing X_3 (the relative weight placed on financial controls) on both X_1 (the degree of multidomestic strategy) and X_2 (the degree of decentralization). The regression equation is:

$$X_3 = (B_{31} * X_1) + (B_{32} * X_2) + (p_{3v} * R_v)$$

Table 5 (Panels A and B) illustrates how the observed zero-order correlations and path coefficients were decomposed into direct, indirect, and spurious effects. Table 5 (Panel C) presents the path analysis findings.

TABLE 5. Path Analysis Method and Findings.

Panel A: Decomposition of Direct and Indirect Effects from the Path Analysis				
Combination of Variables	Decomposition of Association:			
	Observed Correlation	Direct Effect	Indirect Effect	Spurious Effect
X1 with X2	r_{12}	=	p_{21}	
X1 with X3	r_{31}	=	p_{31}	+ $p_{32}r_{12}$
X2 with X3	r_{23}	=	p_{32}	+ $p_{31}r_{12}$
Panel B: Decomposition of Path Coefficients				
Beta Coefficient	Value	Standard Error	t	p
Hypothesis 2: Indirect effect through decentralization				
p_{31}	0.020	0.017	1.14	n.s.
p_{32}	0.016	0.015	1.11	n.s.
R-sq(adj)=0.002; F=1.98; n.s.				
Panel C: Decomposition of Effects				
	Direct Effect	Indirect Effect	Spurious	Total Effect
Hypothesis 2:				
MultStrat/Decentralization	0.359***			0.359***
MultStrat/Relat.Fin.Cont.	0.020	0.006		0.026
Decentralization/Relat.Fin.Cont.	0.016		0.007	0.023

* $p < .05$, ** $p < .01$, and *** $p < 0.01$

RESULTS

Results of Descriptive Statistics

Table 3 provides descriptive statistics for the investigated variables from the 60 Finnish firms. First, it describes the dependent variable. As Table 3 shows, 0.1 represents the lowest theoretically possible value and 2.5 the highest theoretically possible value for the index of relative weight placed on financial controls. These results reveal that none of the firms is totally dependent on financial or nonfinancial controls. The actual lowest value (0.32) indicates that a higher weight is given to nonfinancial controls in some cases, whereas the highest value (0.96) suggests that financial controls have a higher priority in some other firms. On average, the weight placed on financial controls relative to operational and behavioral controls is 0.56.

A more detailed analysis pointed out that the senior managers rely heavily on all types of examined controls. On average, financial controls seem to be most important (with a mean of 4.5, on a scale from 1 to 5), followed by operational output controls (mean 4.2) and behavioral controls (mean 3.9).¹² Since the absolute values are mostly very high, and the actual range is quite small, it may be that real differences are not great across firms and that the five-point measurement scale could not capture all variability.

The degree of multidomestic (/global) strategy was measured and coded on a scale from one to five, with low values indicating a low (/high) degree of multidomestic (/global) strategy, and vice versa. The results suggest that there is considerable variation among the international strategies of Finnish firms. None of the firms applies either a purely multidomestic strategy or a purely global strategy; the actual values range from 1.96 to 4.32. The mean value of the degree of multidomestic strategy (3.11) exceeds the theoretical mean (2.5), indicating that, on average, the internationalized Finnish firms apply a relatively high (/low) degree of multidomestic (/global) strategy.

The degree of decision-making decentralization receives a high actual range (from 1.52 to 4.69). The mean value (3.17) indicates that, on average, Finnish MNEs are relatively decentralized in their decision-making. In other words, HQs and/or business group managers have substantially decentralized several decisions to subsidiary managers.¹³

Results of the Direct Effect (Hypothesis 1)

The test of Hypothesis 1 examines the importance of a direct positive relationship between the degree of multidomestic strategy and the relative weight placed on financial controls in the

¹² For more details, please see Kihn (1996).

¹³ A further analysis conducted in Kihn (1996) suggests that in most cases the operative decisions (marketing, hiring, the selection of vendors, etc.) are highly delegated to overseas subsidiary managers. Almost all firms have centralized the more strategic decisions, such as investments and divestments. These results are not surprising. They are in line with Virtanen (1984).

performance evaluation of overseas managers. Table 4 presents the results of the zero-order correlations for a one-tailed test.

As Table 4 indicates, the null hypothesis can be rejected. A positive and statistically significant association ($r=0.178$, $p<0.05$) is obtained for the degree of multidomestic strategy and the relative weight placed on financial controls. This result is not very strong, but it differs enough from the chance expectation to warrant a belief that something other than chance is at work. Accordingly, in this study a part of the variance in senior managers' use of controls can be explained by the degree of multidomestic strategy. The relative weight placed on financial controls seems to follow the degree of multidomestic strategy.

Results of the Indirect Effect (Hypothesis 2)

Table 5 presents all the paths of the indirect effect. The theoretical expectation of Hypothesis 2 is that there is a positive indirect effect between the degree of multidomestic strategy and financial controls acting through decentralization. Path p21, i.e., the relation between the degree of multidomestic strategy and the degree of decentralization, is analyzed with zero-order correlations. As Table 6, Panel C indicates, the degree of multidomestic strategy shows a positive and a statistically significant correlation ($r=0.359$, $p<0.01$) with the degree of decentralization. The paths p31 and p32 for the relative weight placed on financial controls are specified by the standardized beta coefficient discovered by regressing X3 (the relative weight placed on financial controls) on X1 (the degree of multidomestic strategy) and on X2 (the degree of decentralization). For decentralization, the obtained standardized regression coefficient for the path linking the degree of multidomestic strategy to the relative weight placed on financial controls (p31) is positive and insignificant. The path coefficient p32 is also positive, but insignificant. These results suggest a lack of an indirect effect via decentralization and encourage non-rejection of the null hypothesis.

DISCUSSION OF RESULTS

Using data from 103 senior managers from about 60 Finnish MNEs, the study first describes the degree of multidomestic (/global) strategy, decentralization, and relative weight placed on financial, operational, and behavioral controls in internationalized Finnish firms. It then tests two hypotheses to compare the importance of certain direct and indirect links between the variables analyzed. The key contribution of this study is that it extends the strategy-control-research to the analysis of the multidomestic and global strategy dimensions in internationalized Finnish firms.

In line with Björkman & Lindqvist (1991), internationalized Finnish firms seem to place a

high weight on all types of examined formal controls, with the highest weight on financial controls. A high weight is also placed on the more subjective information. If these more subjective criteria do not have a clear connection to profitability, they may lead managers to make other than economic based decisions.

The findings also indicate that the internationalized Finnish firms do not have purely multidomestic or global strategies. On average, the internationalized Finnish firms apply a relatively high degree of multidomestic strategy.

Regarding decision-making decentralization, it is obvious that while there is a considerable variation among the choices of Finnish firms, on average they have substantially decentralized several decisions to overseas subsidiary managers. This finding supports Virtanen's (1984) results on the 50 largest Finnish industrial enterprises.

Consistent with the first hypothesis, the evidence of this study suggests a statistically significant positive direct link between the degree of multidomestic strategy and senior managers' relative weight placed on financial controls in the performance evaluation of overseas managers. When the degree of multidomestic strategy increases, senior managers use all three types of formal controls, but find it more useful to place a higher weight on financial controls relative to operational and behavioral controls. Firms with a high degree of global strategy place a lower weight on financial controls relative to operational and behavioral controls. This finding supports the normative suggestions by AAA (1973), and Dyment (1987). However, the detected correlation is quite small. This is probably because of measurement error and multiple relationships.

The other hypothesis tests the importance of an indirect link between the degree of multidomestic strategy and the relative weight placed on financial controls. Using path analysis, the data shows statistically insignificant support for the indirect link. This means that senior managers' relative use of controls generally follows the firm's strategy even if they have not structured their control systems in such a way that the degree of decentralization would be influenced by the degree of multidomestic strategy.

The findings of this study should be evaluated in light of the following limitations. Only selected types of formal controls were analyzed in the performance evaluation of overseas managers. Only certain dimensions of strategy were analyzed (i.e., Porter's multidomestic and global dimensions). The respondents were senior level managers; overseas managers might have responded differently. The applied statistical tests present evidence on empirical associations but not causal effects. Thus, statements about the direction of relations can only be made in terms of the consistency of findings with the effects proposed in the theoretical discussion (Chenhall et al. 1986). The findings are intended to describe internationalized Finnish firms, not an individual firm. A given individual firm's results may have been greatly affected by

some special circumstances. Overall, the suggested contributions are still tentative in nature. Despite these limitations, the findings of this macro level study suggest certain tendencies between strategy and controls in internationalized Finnish firms.

In addition to improving definitions and measurement instruments, the scores of senior managers and overseas subsidiary managers could be compared to highlight possible macro- and micro-level differences in the strategies and control mechanisms of various subsidiaries. Even if it may be difficult, the effectiveness of Porter's strategy and control mix combinations could be researched. Ideally, such an approach could enhance our ability to understand what kind of control mix is effective in different strategy conditions and, as a result, improve the likelihood that formal controls will help managers improve their performance and that of their firm. Further research could also be directed at analyzing relations between other control and strategy dimensions. The combination of economic, contingency, and behavioral factors that are likely to impact managerial performance evaluation practices could be further explored. ■

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APPENDIX 1: The English Version of the Survey Questions. (The original survey was in Finnish).

1a. How important do you perceive each of the following three types of controls to be in the evaluation of overseas managers? (Please circle the appropriate number on the 5-point scale below).

	Not At All Important	Of Little Importance	There Between	Quite Important	Very Important
FINANCIAL CONTROLS (e.g., profit, return-on-investment, and residual income)	1	2	3	4	5
OPERATIONAL OUTPUT CONTROLS (market share, quality, production volume, etc.)	1	2	3	4	5
BEHAVIORAL CONTROLS (e.g., achieve cost budgets & production standards, follow rules & procedures, and propose expenditure programs)	1	2	3	4	5

1b. How often do you arrange meetings with overseas managers to discuss their performance on the following types of controls? (1 = never, 2 = seldom, 3 = only if the performance is significantly below expectations, 4 = quite often, and 5 = regularly).

FINANCIAL CONTROLS	1	2	3	4	5
OPERATIONAL OUTPUT CONTROLS	1	2	3	4	5
BEHAVIORAL CONTROLS	1	2	3	4	5

1c. To what extent do the following three types of controls reflect whether overseas managers are succeeding or failing with the business?

	Not At All	A Little	Some what	Quite much	Very much
FINANCIAL CONTROLS	1	2	3	4	5
OPERATIONAL OUTPUT CONTROLS	1	2	3	4	5
BEHAVIORAL CONTROLS	1	2	3	4	5

1d. How much attention do you pay to periodic (i.e., weekly or monthly) reports of results based on the following types of controls, when you evaluate the performance of overseas managers?

FINANCIAL CONTROLS	1	2	3	4	5
OPERATIONAL OUTPUT CONTROLS	1	2	3	4	5
BEHAVIORAL CONTROLS	1	2	3	4	5

1e. How much impact do good or bad results measured in the following types of controls have on the rated performance of overseas managers?

FINANCIAL CONTROLS	1	2	3	4	5
OPERATIONAL OUTPUT CONTROLS	1	2	3	4	5
BEHAVIORAL CONTROLS	1	2	3	4	5

2a. To what extent have senior managers coordinated the following activities?

	Not At All	A Little	Some what	Very much	Totally
Production of parts and products (/services)	1	2	3	4	5
Sales activities management	1	2	3	4	5
Procurement of raw materials and parts	1	2	3	4	5
Marketing	1	2	3	4	5
Product (/service) development	1	2	3	4	5
Technology (service process) development.....	1	2	3	4	5
Accounting and legal activities	1	2	3	4	5
Government and public relations	1	2	3	4	5
Human resource.....	1	2	3	4	5
Product distribution	1	2	3	4	5
Customer service.....	1	2	3	4	5
Product promotion and advertising	1	2	3	4	5
Information systems and data processing	1	2	3	4	5
Capital raising and management	1	2	3	4	5

2b To what extent are the following activities centralized into one geographic location?

	Not At All	A Little	Some what	Very much	Totally
Production of parts and products (/services)	1	2	3	4	5
Sales activities management	1	2	3	4	5
Procurement of raw materials and parts	1	2	3	4	5
Marketing	1	2	3	4	5
Product (/service) development	1	2	3	4	5
Technology (service process) development.....	1	2	3	4	5
Accounting and legal activities	1	2	3	4	5
Government and public relations	1	2	3	4	5
Human resource.....	1	2	3	4	5
Product distribution	1	2	3	4	5
Customer service.....	1	2	3	4	5
Product promotion and advertising	1	2	3	4	5
Information systems and data processing	1	2	3	4	5
Capital raising and management	1	2	3	4	5

3. To what extent are the following decisions made by overseas managers?

	Not At All	A Little	Some what	Very much	Totally
Discontinuing a major existing product or product line.	1	2	3	4	5
Redesigning products for a major existing product line.....	1	2	3	4	5
Expanding into new marketing territories for existing products	1	2	3	4	5
Developing a major new product line.....	1	2	3	4	5
Buying from an outside vendor when the items required could be supplied by another unit in your corporation	1	2	3	4	5
Selecting an outside vendor to supply an important raw material or component used in operations.....	1	2	3	4	5
Selecting the vendor to supply major components for an approved capital expenditure project.	1	2	3	4	5
Hiring a consultant for assistance in developing or modifying operating systems	1	2	3	4	5

Hiring a consultant for special studies	1	2	3	4	5
Increasing the planned level of expenditures for an advertising project	1	2	3	4	5
Changing the selling price on a major product	1	2	3	4	5
Changing the policy governing the level of investment in inventories	1	2	3	4	5
Increasing the number of personnel employed in their units	1	2	3	4	5
Increasing the number of non-exempt personnel employed in their units	1	2	3	4	5
Promoting one of their lower-level managers to a higher position	1	2	3	4	5
Firing one of their direct subordinates	1	2	3	4	5
Hiring a new person from outside	1	2	3	4	5
Determining the size of a bonus to be paid to a direct subordinate.	1	2	3	4	5