

2<sup>nd</sup> International Conference on Leadership, Technology and Innovation Management

## Towards an efficient level of centralization in MNEs

Francesco Scalera<sup>a</sup>, Sylva Žáková Talpová<sup>b</sup>, a\*

<sup>a</sup> *Department of Business and Law Studies, Faculty of Economics - University of Bari "Aldo Moro", Italy*

<sup>b</sup> *Department of Corporate Economy, Faculty of Economics and Administration – Masaryk University, Brno, Czech Republic*

---

### Abstract

The alignment of strategy with organizations structure, process and environment is at the heart of contingency theories. However, transition and dynamically changing environment are challenging the existing models of "strategic fit". In this paper we explore the issue by applying the seminal model of Miles and Snow (1978) to a panel of 160 multinational enterprises, focusing on the level of centralization/decentralization of various strategic types. We find that the among prospectors, defenders, analyzers and reactors there are almost no differences in the level of centralization of various processes, which is not consistently related to organizational strategies predicted by Miles and Snow. The findings raise the question of evolving organizational structures of MNEs which would be able to respond to the changing environment.

*Keywords:* Centralization, MNEs, Miles and Snow, Strategies, Structure.

---

© 2013 Published by Elsevier Ltd.

Selection and peer-review under responsibility of The Second International Conference on Leadership, Technology and Innovation Management

### 1. Literature Review And Hypotheses

Czech Republic is a smaller emerging economy pertaining to the Central and Eastern Europe countries. Therefore the transition poses challenges not only for domestic companies, but for the multinational enterprises (MNEs) operating there. Since the fall of the Berlin wall, the business environment has gone through a large change, which has brought foreign affiliates to the country. According to research conducted by AT Kearney, the Czech Republic is in the top twenty countries identified by management of the largest global companies as ripe for foreign investment (A.T. Kearney, 2010). Those with adequate financial resources are able to increase market share via mergers and acquisitions, which was not possible for most of them before the crisis (Žáková Talpová, 2011).

Foreign affiliates contribute to a host country's international competitiveness through various channels. Multinational enterprises account for regional economic growth and development, have knowledge spillover effects, induce competition, thus greatly influencing the macroeconomic frame (Scalera and Dumitrescu, 2012). Foreign affiliates are responsible for a large part of host countries' employment, turnover and value added. The share of foreign-controlled employment in OECD countries ranged from 5% to 35% in 2008 (OECD, 2011). In general,

---

\* Corresponding author. Tel. +393357817952

E-mail address: [robby\\_sca@virgilio.it](mailto:robby_sca@virgilio.it)

smaller countries such as the Czech Republic, the Slovak Republic and Hungary have a stronger presence of foreign-owned firms according to OECD. Furthermore, during the last decade the presence of foreign affiliates has increased significantly in these countries. Foreign affiliates' employment in the manufacturing sector is significantly larger in central European countries. The reason can be hidden in the fact that many western European companies have relocated production facilities to the Slovak Republic, the Czech Republic, Hungary and Poland over the past decade, especially following these countries' accession to the European Union.

The importance of strategic management research in such context is obvious. The consequences of the economic and political transition changed the environment which now poses a challenge for management of MNEs. The question arises, what new organizational forms are evolving to response such a challenge?

The alignment of organization strategy to its internal characteristics is an issue of a high importance to management literature. The resource-based view suggests that MNE's economic rents depend on its resources and on the match between resource allocation and local environment conditions (Wernerfelt, 1984). Contingency theories suggest that, when properly aligned with the environment, certain strategies, structure and processes are likely to improve organizational performance. The normative literature within the business policy field emphasized scanning and assessing the environment and matching it with organizational capabilities (Bourgeois, 1980). Bourgeois also suggested that monitoring and assessing of the environment and subsequent connection to the organizational resources is essential for organizational functioning. The organizational theory argues that certain environmental conditions influence the organizational administration and structure (Duncan, 1972). However, the majority of the empirical studies focused on the strategic fit examined the strategy-environment relationship, e.g. (Luo and Tan, 1998) or the effects of structure and environment on the strategy, e.g. (Olson, Slater and Hult, 2005).

In this paper we explore the issue of strategy-structure relationship by applying Miles and Snow (1978) strategic framework to multinational enterprises (MNEs) being in business in the Czech Republic. Miles and Snow proposed that firms in general adopt relatively stable patterns of strategic behaviour in order to gain a proper alignment with the perceived environmental conditions, explicitly prospectors, analyzers, defenders and reactors. The underlying key dimension of this typology is the organization's response to changing environment. Each of these strategies is related to distinctive organizational structures, processes and environment.

Although their initial sample was small and it was developed after field study in four industries, Miles and Snow typology has received a general acceptance and empirical support in strategy literature (McDaniel and Kolari, 1987).

The typology has been widely adopted in different empirical studies, e.g. (Hambrick, 1983; Zajac and Shortell, 1989; Desarbo, Benedetto, Song and Sinha, 2005; Luo and Tan, 1998; Sim and Teoh, 1997; Vorhies and Morgan, 2003) which have contributed to identifying it as one having good codification and prediction strengths (James and Hatten, 1995).

The use of this typology would therefore enable comparability of research findings with previous studies. The typology has been subjected to numerous tests of its validity and researchers have found strong and consistent support for the basic validity of the typology (Hambrick, 2003; Shortell and Zajac, 1990). It has furthermore been suggested that there is a general congruence between the Miles & Snow typology and Porter's generic competitive strategies, namely cost leadership and differentiation (Shortell and Zajac, 1990).

Miles and Snow typology of strategy has been widely acknowledged to be the most influential of its kind for the past quarter of a century (Desarbo, Benedetto, Song and Sinha, 2005). Its enduring power has been ascribed to its independence on industry and correspondence to situations in real world (Hambrick, 2003).

Based on field studies in four industries, Miles and Snow identified four forms of adaptive behaviour (Miles, Snow, Meyer and Coleman Jr., 1978), and according to their strategic choice firms can be described as analyzers, prospectors, defenders and reactors, depending on how they search for competitive advantage. Firms adopting defender strategy are organizations that select a stable, narrowly defined product or market domain, focusing more on resource efficiency and process improvements that cut manufacturing costs (Desarbo, Benedetto, Song and Sinha, 2005). "*A defender's success hinges on its ability to maintain aggressively its prominence within the chosen market*

*segment*” (Miles, Snow, Meyer and Coleman Jr., 1978). They thrive through stability, efficiency and reliability (Miles, Snow, Meyer and Coleman Jr., 1978). Opposed to defenders, firms adopting prospector strategy are able to adapt to market change (Olson, Slater, and Hult, 2005). This often brings about significant cost. Prospectors are organizations that “*almost continually search for new market opportunities*” (Miles, Snow, Meyer and Coleman Jr., 1978).

Domain of prospectors is usually very broad and developing continuously over the time (Miles, Snow, Meyer and Coleman Jr., 1978). Companies seeking both risk-adjusted efficiency and emerging market opportunities are known as analyzers, pursuing a hybrid strategy (Miles, Snow, Meyer and Coleman Jr., 1978). “*Analyzers prosper by purposely being more innovative in their product-market initiatives than defenders, but doing so more cautiously and selectively than prospectors*” (Miles, Snow, Meyer and Coleman Jr., 1978).

The key to success for analyzers is to come out with either improved or less expensive versions of products that prospectors introduced while defending core markets and products (Olson, Slater and Hult, 2005). Reactors do not have any predominant strategy and they do not prosper at all (Miles, Snow, Meyer and Coleman Jr., 1978). Their pattern of adjustment is both inconsistent and unstable. A firm with reactor strategy “*seldom make adjustment of any sort until forced to do so by environmental pressures*” (Miles, Snow, Meyer and Coleman Jr., 1978).

Organizational structure is by Miles and Snow (Miles, Snow, Meyer and Coleman Jr., 1978). captured as an “administrative problem”. For defenders it is necessary to manage all organizational operations centrally. Also the organizational structure typical for defenders requires the control system to be centralized. On the other hand, prospectors’ organizational structure must be flexible enough to accommodate a changing portfolio. Prospectors therefore respond to this need by decentralized organizational structures. The decentralization enables prospectors to apply its expertise in many areas without constraints resulting from management control.

However, there are studies that are not consistent with the contention of Miles and Snow. The empirical study of Andrews et al. (Andrews, Boyne, O’Toole and Walker, 2008) showed that the level of decentralization is not significant variable for defenders. Particularly for low-cost defenders the strategy seems to be unrelated to the shift of decision-making from middle managers. Other study (Olson, Slater and Hult, 2005) uncovered that decentralization is positively related to defender strategy. The reason for partly contradictory results could be assigned to the differences in research samples, when the first mentioned study focused on public organizations.

To add a piece to the jigsaw, in this paper we explore the relation of various strategy types and the level of centralization in MNE subsidiaries. In general, MNE subsidiary strategy is specific to a certain extent. The role of a subsidiary might be an important factor influencing subsidiary strategy. The role of MNE subsidiary role is initially defined by corporate headquarters.

However, over time the subsidiary itself may evolve initiatives (Birkinshaw, 1996). In this process, the local host environment shapes the activities of a subsidiary (Wright, Filatotchev, Hoskisson and Pen, 2005). Recent authors dealing with subsidiary role typologies and subsidiary initiatives emphasize the importance of local market responsiveness in shaping developments of subsidiary role (Yamin and Sinkovics, 2010).

Based on existing knowledge and the contradictory results of empirical research, we formulated the following research question:

*Is prospector, defender, analyzer or reactor strategy associated with a higher level of centralization?*

## **2. Methodology**

### *2.1. Data Collection and Instrument*

The focus of the study is on foreign subsidiaries in the Czech Republic belonging to the manufacturing industry, which are legal entities registered in the Czech Republic, have 50 and more employees, and belong to the industry C – Manufacturing Industry according to CZ-NACE classification and their owner is a foreign legal entity. The entire population of over 900 MNE subsidiaries located in the Czech Republic was targeted for this study. All the population of more than 800 subsidiaries has been targeted.

Primary data were collected through an electronic questionnaire. The draft questionnaire was pre-tested by a mix of experienced commercial managers and academics. Respondents were kept unaware of the relationships under investigation to avoid over-justification issues.

Following the previous research (Hambrick, 1983; Desarbo, Benedetto, Song and Sinha, 2005), questionnaires were directed at the CEO level of foreign subsidiaries in the Czech Republic, or a competent member of management.

CEOs are said to have the best overview of the company's strategy (Pertusa-Ortega, José F. and Claver-Cortés, 2008).

The response rate reached 21%, which compares favourably with the average top management survey response rate (Hult and Ketchen, 2001). While this response reduces the probability of non response bias (Heide and Weiss, 1993), standard tests confirmed an absence of significant differences between early and late respondents on a range of characteristics.

## 2.2. Centralization Measure

Respondents were asked to mark the level of centralization in various management fields on the 10-point scale. These fields included the decision making in the area of selection of main suppliers, selection of other suppliers, selection of main customers, selection of other customers, product portfolio, technical procedures, information system, marketing, logistic, personnel management, and in the area of financial management.

## 2.3. Strategic Measures

With respect to the purpose of this study, the Miles and Snow typology (Miles, Snow, Meyer and Coleman Jr., 1978) has been chosen as a framework of business strategy to explore environment-strategy configuration of MNEs.

Strategic choices were assessed via self-typing paragraph. The wide range of possibilities how to assume a company's strategy is ranging from prescribed description or own description of the strategy, through personal interviews to usage of objective indicators (Conant, Mokwa and Varadarajan, 1990). Each of these possibilities has its advantages and disadvantages. For this study, a selection of strategy on the basis of a description has been chosen, since this method of CEO's self-typing of strategic orientations has received considerable empirical support for its validity (Conant, Mokwa and Varadarajan, 1990; James and Hatten, 1995; Shortell and Zajac, 1990).

This is a relatively low-cost method compared to personal interviews at companies but still allows all of the strategies noted to be explored. Further advantage lies in the facility with which the data obtained may be processed and interpreted (Conant, Mokwa and Varadarajan, 1990). Authors recommend using this method for larger samples. This method was largely employed in similar studies, e.g. (Jennings and Lumpkin, 1992).

## 3. Analysis

We explored the strategy-centralization relation using one-way ANOVA with the levels of centralization in various areas of management as dependent variables and strategy type as a factor variable.

The results of the ANOVA have not showed any statistically significant differences between prospectors, defenders, analyzers and reactors in the level of centralization in various areas. The p-value was highest for the area of the selection of main customers. The assumptions of ANOVA were tested. Because the data were suspected from non-normality, additionally, non-parametric tests were conducted. The results of Jonckheere-Terpstra test of independent samples revealed the statistically significant differences ( $p < 0,05$ ) in the level of centralization of the selection of main customers among the companies using different strategy types. For other variables, the results of ANOVA were confirmed. The means of centralization variable in the area of main customers selection is depicted in Figure 1.

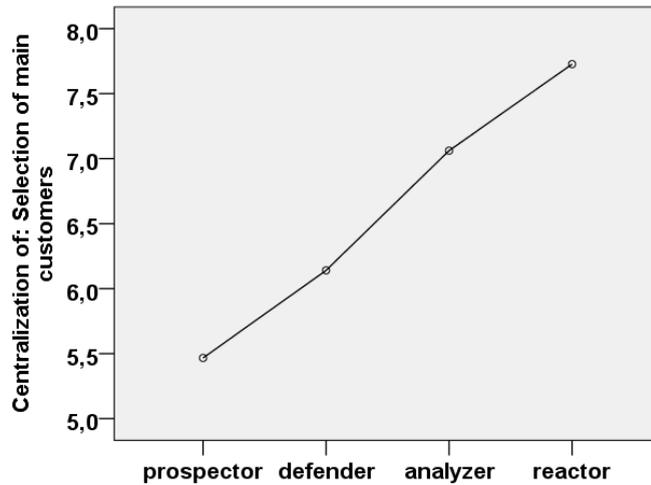


Fig 1. The means of variable Centralization in the area of selection of main customers

The results show that the level of centralization is not related to the company strategy, at least not within all areas of centralization. Each particular centralization variable was tested and results implied that it is only the level of centralization in the area of selection of main customers that differs among strategy groups. In MNEs, headquarters often limits the subsidiary by choosing or at least approving their customers. However, from the above mentioned results it seems that also this limitation might differ according to the subsidiary strategy. The prospector strategy was related to the lowest level of centralization in the main customer selection area, followed by defender, analyzer and reactor with the highest level. This also suggests that the relationship can be mutual – higher decentralization in the main customer selection area might be related to the prospector strategy of subsidiary.

We also examined a relation of strategy choice to centralization of the main customers selection area through regression analysis. This analysis revealed that it is the prospector strategy which is related to decentralization in this area. The prospector variable was significant at <sup>+</sup>p<0,1 level. The results are depicted in Table 1.

Table 1: Results of regression analysis

Dependent variable	Centralization in the main customers selection area
Constant	0,000000
Prospector	-2,260606 <sup>+</sup>
Analyzer	-1,586648
Defender	-0,666048

<sup>+</sup>p<0,1

Results imply that pursuing a prospector strategy is related to lower level of centralization in the main customers selection area. Subsidiaries using prospector strategy are therefore enabled to choose its customers and are not restricted to a large extent by headquarters.

**4. Discussion, Limitations and Conclusion**

The transition brings about various challenges for MNEs in every country. This paper aims at the level of centralization in MNEs using various strategies. Studies to date have focused on the direct influence of contextual elements on subsidiary contribution (Rugman and Verbeke, 2003) and have failed to provide empirical evidence of the effects of centralization and its relation to strategy.

We aimed to raise a question of sustainability of existing theoretical frameworks of organizational structures of MNEs. This paper tries to fill the gap in the literature by examining whether a particular strategy choice is related to a higher level of centralization in MNE subsidiaries. The existing literature offers contradictory results. We examined this issue applying Miles and Snow model on the MNE subsidiaries in the Czech Republic. We found out that there are almost no differences in the level of centralization among companies using prospector, analyzer, defender or reactor strategy, which is not consistently related to organizational strategies predicted by Miles and Snow. It seems that MNEs, while adopting different strategies, use the similar pattern of the centralization of the decision making processes. The most centralized areas in the MNEs are information systems, product portfolio and the area of financial management, which corresponds to the main incentives why companies expand abroad.

Partial support for Miles and Snow suggestions was found in the level of centralization of the decision processes in the area of main customers' selection. While prospectors are associated with lower level of centralization in this area, this process is centralized to a large extent in companies pursuing reactor strategy. It seems that the control of main customer selection is an important factor for MNE headquarters when setting up the organizational processes in the subsidiary.

This study has several limitations which may be addressed by further studies. These include the effect of specific host-country characteristics which might be in the Czech Republic. As a research instrument, a questionnaire also falls short of a sophisticated temporal study. The use of existing measures for strategies has advantages in terms of validity, but does not have to reflect the real strategy of the subsidiary precisely. There may also be other factors not captured by the study which influence the relationships under examination, particularly MNE country of origin and subsidiary general manager nationality.

Despite these limitations, this study has important implications for managers at MNE headquarters and at their subsidiaries. This study implies that there might be a pattern of the MNEs organization, which includes a particular level of centralization of various processes, which is used by the companies, albeit pursuing different strategies. The only area which might differentiate structures of those companies is the choice of main customers. In MNE subsidiaries pursuing prospector strategy the level of centralization is low in the area of main customer selection, and managers in such companies can more or less independently decide about their customer's portfolio.

Defenders competencies in this field are more centralized, but not so much as for analyzers. Competencies of managers MNE subsidiaries pursuing reactor strategy are restricted to a large extent in this area, and the customers are determined from the headquarters.

Since emerging market of the Czech Republic is considered attractive for foreign direct investment, the findings of this study may have implications for executives already active in this market, but primarily for those intending to enter this market.

In conclusion, our research adds to existing work on the Miles and Snow model by examining the existing connections between strategy and the level of centralization. Our analysis has been conducted on a specific group of subsidiaries of multinational enterprises. Future studies in this area may also wish to empirically investigate the strategy-making process in the MNE, but also the organizational structures used in current MNEs.

## References

- Andrews, R., Boyne, G. A., O'Toole, L. J. and Walker, R. M. (2008). *Exporing "Strategic fit": An Empirical Test of the Miles and Snow Model*. Academy of Management Conference. Anaheim: Academy of Management.
- A. T. Kearney, I. (2010). Investing in a Rebound: The 2010 A.T. Kearney FDI Confidence Index. Virginia: CZ Deresky FDI index p. 6.
- Birkinshaw, J. (1996). How Multinational Subsidiary Mandates are Gained and Lost. *Journal of International Business Studies*, Vol. 27, pp. 467-495.
- Bourgeois, L. J. (1980). Strategy and Environment: A Conceptual Integration. *Academy of Management Review*, Vol. 5, No. 1, pp. 25-39.
- Conant, J. S., Mokwa, M. P. and Varadarajan, P. R. (1990). Strategic Types, Distinctive Marketing Competencies and Organizational Performance. *A. Strategic Management Journal*, Vol. 11, No. 5, pp. 365-383.

- Desarbo, W. S., Benedetto, C. A., Song, M. and Sinha, I. (2005). Revisiting the Miles and Snow Strategic Framework: Uncovering Interrelationships between Strategic Types, Capabilities, Environmental Uncertainty, and Firm Performance. *Strategic Management Journal*, Vol. 26, No. 1, pp. 47-74.
- Duncan, R. B. (1972). Characteristics of Organizational Environments and Perceived Environmental Uncertainty. *Administrative Science Quarterly*, Vol. 17, No. 3, pp. 313-327.
- Hambrick, D. C. (1983). Some Tests of the Effectiveness and Functional Attributes of Miles and Snow's Strategic Types. *Academy of Management Journal*, Vol. 26, No. 1, pp. 5-26.
- Hambrick, D. C. (2003). On the Staying Power of Miles and Snow's Defenders, Analyzers, and Prospectors. *Academy of Management Executive*, Vol. 17, No. 4, pp. 115-118.
- Heide, J. B. and Weiss, A. M. (1995). Consideration and Switching Behavior for Buyers in High-Tecnology Markets. *Journal of Marketing*, Vol. 59, No. 3, pp. 30-43.
- Hult G.T. and Ketchen D.J. Jr. (2001). Does Marker Orientation Matter? A Test of the Relationship between Positional Advantage and Performance. *Strategic Management Journal*, Vol. 22, No. 9, pp. 899-906.
- James, W. L. and Hatten, K. J. (1995). Further Evidence on the Validity of the Self Typing Paragraph Approach: Miles and Snow Strategic Archetypes in Banking. *Strategic Management Journal*, Vol. 16, No. 2, pp. 161-168.
- Jennings, D. F. and Lumpkin, J. R. (1992). Insights between Environmental Scanning Activities and Porter's Generic Strategies: An Empirical Analysis. *Journal of Management*, Vol. 18, Iss. 4, pp. 791-803.
- Luo, Y. and Tan, J. J. (1998). A Comparison of Multinational and Domestic Firms in an Emerging Market: A Strategic Choice Perspective. *Journal of International Management*, Vol. 4, No. 1.
- McDaniel, S. W. and Kolari, J. W. (1987). Marketing Strategy Implications of the Miles and Snow Strategic Typology. *Journal of Marketing*, Vol. 51, No. 4, pp. 19-30.
- Miles, R. E., Snow, C. C., Meyer, A. D. and Coleman Jr., H. J. (1978). Organizational Strategy, Structure, and Process. *The Academy of Management Review*, Vol. 3, No. 3, pp. 546-562.
- OECD (2011). OECD Science, Technology and Industry Scoreboard 2011. Retrieved December 2, 2011, from <http://www.oecd-ilibrary.org/docserver/download/fulltext/9211041ec059.pdf?expires=1323091655&id=id&accname=guest&checksum=E3EB1393A431B399DB9BF008DB106B3E>
- Olson, E. M., Slater, S. F. and Hult, G. M. (2005). The Performance Implications of Fit Among Business Strategy, Marketing Organization Structure, and Strategic Behavior. *Journal of Marketing*, Vol. 69, pp. 49-65.
- Pertusa-Ortega, E. M., José F., M.-A. and Claver-Cortés, E. C.-C. (2008). Competitive Strategies and Firm Performance: A Comparative Analysis of Pure, Hybrid and 'Stuck-in-The-Middle' Strategies in Spanish Firms. *British Journal of Management*, Vol. 20, Iss. 4, pp. 508-523.
- Rugman, A. M. and Verbeke, A. (2003). Extending the Theory of the Multinational Enterprise: Internalization and Strategic Management Perspectives. *Journal of International Business Studies*, Vol. 34, No. 2, pp. 125-137.
- Scalera, F. and Dumitrescu, C. (2012). Perception and Facts on the Activity of Multinational Enterprises. *International Journal of Business Management and Economic Research*, Vol. 3, No. 1, 417-424.
- Shortell, S. M. and Zajac, E. J. (1990). Perceptual and Archival Measures of Miles and Snow's Strategic Types: A Comprehensive Assessment of Reliability and Validity. *Academy of Management Journal*, Vol. 33, No. 4, pp. 817-832.
- Sim, A. B. and Teoh, H. Y. (1997). Relationships between Business Strategy, Environment and Controls: A Three Country Study. *Journal of Applied Business Research*, Vol. 13, Iss. 4, pp. 57-73.
- Vorhies, D. W. and Morgan, N. A. (2003). A Configuration Theory Assessment of Marketing Organization Fit with Business Strategy and Its Relationship with Marketing Performance. *The Journal of Marketing*, Vol. 67, No. 1, pp. 100-115.
- Wernerfelt, B. (1984). A Resource-based View of the Firm. *Strategic Management Journal*, Vol 5, pp. 171-180.
- Wright, M., Filatotchev, I., Hoskisson, R. and Pen, M. (2005). Strategy Research in Emerging Economies: Challenging the Conventional Wisdom. *Journal of Management Studies*, Vol. 42, pp. 1- 35.
- Yamin, M. and Sinkovics, R. R. (2010). ICT Deployment and Resource-Based Power in Multinational Enterprise Futures. *The Futures of International Business*, Vol. 42, Iss. 9, pp. 952-959.
- Zajac, E. J. and Shortell, S. M. (1989). Changing Generic Strategies: Likelihood, Direction and Performance Implications. *Strategic Management Journal*, Vol. 10, pp. 413-430.
- Žáková Talpová, S. (2011). Strategies of Domestic and Multinational Firms in the Czech Republic. *Journal of Competitiveness*, Iss. 4, pp. 39-50.