THESSES

Nagy Gábor

Is Market Orientation a Source of Sustainable Competitive Advantage when Rapid Changes in the External Environment Take Place? Strategic Adaptation of Firms to the Changing Economic Environment During the Transition in Hungary

entitled doctoral thesis

Thesis supervisor

Dr. Berács József

professor of marketing

Budapest, 2013
THESES

Nagy Gábor

Is Market Orientation a Source of Sustainable Competitive Advantage when Rapid Changes in the External Environment Take Place?
Strategic Adaptation of Firms to the Changing Economic Environment During the Transition in Hungary

entitled doctoral thesis

Thesis supervisor

Dr. Berács József

professor of marketing

© Nagy Gábor
Table of contents

1. Background and Topic Choice ........................................................................................................... 4
   1.1. Hypotheses H1a-H1c – Selection Approach ................................................................................. 6
   1.2. Hypotheses H2a-H4b – Interaction Approach .............................................................................. 8
   1.3. Hypotheses H5a-b – Systems Approach ..................................................................................... 10
2. Applied Methodology .............................................................................................................................. 12
   2.1. Methodology – Selection Approach ............................................................................................... 12
   2.2. Methodology – Interaction Approach ............................................................................................. 13
   2.3. Methodology – Systems Approach .................................................................................................. 14
3. Findings of the Thesis ............................................................................................................................... 16
   3.1. Findings of the Thesis – Selection Approach ................................................................................ 16
   3.2. Findings of the Thesis – Interaction Approach ............................................................................. 17
   3.3. Findings of the Thesis – Systems Approach ................................................................................ 19
4. References ............................................................................................................................................. 20
1. Background and Topic Choice

Why do businesses need market orientation? The answer sounds simple enough: in order to improve performance. However, the impact of market orientation on performance is not self-explanatory. Several studies have shown that market orientation’s potential to improve performance depends on a number of situational factors, like cultural context, industry-specific conditions, and the performance factors considered (Cano et al., 2004; Shoham et al., 2005; Kirca et al., 2005). This is supported by Day’s (1999) view that it is of utmost importance to take into account the operating environment of the company if we are to examine the effect of market orientation on performance.

Researchers have managed to prove the relationship between environmental uncertainty and the marketing concept, through both theoretical reasoning and direct empirical tests (see Day–Wensley 1988; Hambrick 1983; Kohli–Jaworski 1990). These studies support, even if to differing degrees, the contingent nature of the marketing concept, which in turn confirms that the relationships between the various strategic orientations and performance are moderated by environmental factors.

Slater and Narver (1994) also investigated the environmental factors influencing the strength of the relation between market orientation and performance. Their results showed that the environment does not affect either the nature of the relation between market orientation and business performance or the strengthening/dominance of either component of market orientation (customer orientation vs. competitor orientation). The argumentation of Slater and Narver undoubtedly holds true in a mature market economy, where markets achieve a state of equilibrium in the long run (Golden et al., 1995). Companies are, however, faced with a different situation in environments the basic characteristics of which are still in formation (Golden et al., 1995). In a transitional country, the environment has a
critical influence on the formation and shaping of companies’ market orientation, and managers’ related perceptions are different, as well (Gao et al., 2007). Thus it seems reasonable to assume that in transitional countries, managers’ perception of environmental uncertainty has an effect on the degree of companies’ market orientation.

Some researchers believe that market orientation does not necessarily yield a sustainable competitive advantage for the firm, for the following reasons. First, market orientation infers a narrow focus on consumers’ documented needs and competitors’ actions (i.e. adaptive learning vs. learning that supports the creation of new knowledge: Hamel–Prahalad, 1991; Slater–Narver, 1995). Because of this narrow focus, companies may fail to recognize threats from unusual sources (from market niches), which in turn prevents market oriented businesses from building a sustainable competitive advantage. Secondly, according to the resource-based theory of the firm, a capability or resource leads to a sustained performance advantage if it is inimitable by the competition (Barney, 1991). Day (1994) suggested that inimitable resources and capabilities are the ones that provide tacit knowledge that helps the company identify consumers’ latent needs. Such a knowledge base can, then again, only emerge if companies adopt the broader and more proactive approach of market orientation (Slater–Narver, 1998). And in the third place, it is a widely accepted view that the firm only has a competitive advantage if it is faster and more adept in learning and taking advantage of market trends than its competitors are (De Geuss, 1988).

There is a large body of research on the market orientation behavior of businesses in transitional countries (see Akimova, 2000; Hooley et al., 2000). The explanation these studies provide for how marketing institutions influence the formation of market orientation and marketing behavior is, however, superficial
(Simmonds, 1994). According to the advocates of social and macro marketing, behavior in the marketplace is embedded in social relationships (see Arndt, 1981; Dixon, 2002; Thanawala, 2002). Consequently, the various characteristics of marketing institutions affect companies’ marketing behavior (Handelman–Arnold, 1999; Nwankwo, 2004), and it may be assumed that the formation of market orientation is significantly influenced by the sociocultural context, as well (Bathgate et al., 2006). If that is the case, that implies that the firm’s degree of market orientation is the result of successful strategic alignment, which emerges as a consequence of managerial decisions and represents a certain way of allocating resources (Ruekert, 1992).

My thesis examines the adaptation of businesses to environmental conditions in the two decades following the regime change. More specifically, I am looking to answer the following questions. (1) What is the role of the competitive environment in the formation of companies’ market orientation? (2) How do the competitive environment and the different corporate strategies interact, and how do they develop hand-in-hand during times of economic transition? (3) Does market orientation ensure a sustainable competitive advantage for firms if the environment is a rapidly changing one? (4) Do companies that adapt to changing environmental conditions outperform those of their competitors that do not perform a strategic adjustment of sufficient extent?

1.1. Hypotheses H1a-H1c – Selection Approach

From amongst the schemes describing firms’ adaptation to the environment, the theory of population ecology is one of the most widely-known ones. According to population ecology theory, adaptation to the environment is the result of an evolutionary process, which propels companies towards a state of better alignment
with the environment (Fennell, 1980). The environment selects organizations according to the degree to which they have adapted their organizational structure and processes to the environmental conditions (Hannan–Freeman, 1974; Buckley, 1967). Organizational forms and patterns that are unviable will eventually die out, while the viable ones get selected and survive. Thus in the organizations that best adapt to changes in the environment, an isomorphic relationship is formed between the context and the organization’s structural attributes (DiMaggio–Powell, 1983).

The adaptation being realized during the two decades of the regime change takes place in the following way: businesses set a strategic direction and in accordance create an organizational form and develop operational processes that all support the optimal allocation of resources and may hence be the key to survival. What an optimal form and organizational structure stand for is that as a result of constant changes in consumers’ habits and preferences, the accelerated development of technology and intensifying competition, capabilities emerge that enable the firm to correctly follow the depth and dynamics of the changes taking place in the external environment and thus to accomplish an adaptation of the degree necessitated by the environment. Survival, in turn, means that the company will be able to identify and supply quality products to its target markets, which will guarantee its stable position in the market and above-average profitability. In light of the above, the following hypotheses can be formulated:

**H1a:** There is a positive correlation between market turbulence and the structural and process characteristics of firms’ market orientation behavior, yet the effect diminishes with time.

**H1b:** There is a positive correlation between technological turbulence and the structural and process characteristics of firms’ market orientation behavior, yet the effect diminishes with time.
**H1c:** There is a positive correlation between the intensity of competition and the structural and process characteristics of firms’ market orientation behavior, yet the effect diminishes with time.

1.2. Hypotheses H2a-H4b – Interaction Approach

According to the interaction approach, organizational adaptation to external conditions corresponds to the complexity of the environment being also mirrored in the organization’s structure. In contrast to population ecology theory, the focus here is not on the congruence between context and structure, but on the impact that the interaction between the structural attributes of the organization and the context have on performance. The interaction approach suggests that environmental complexity’s being reflected in the organizational structure represents a higher degree of organizational adaptation. For the purposes of the present thesis, companies’ environment comprises market turbulence, technological turbulence and the intensity of competition, while the organization’s internal attributes consist of the structural and process characteristics of their market orientation behavior.

*Market turbulence* stands for the constant changes in consumers’ preferences in a given submarket. In the early stages of transition consumer preferences tend to be immature, due to the consumption structure still being anchored in the past regime (Zhou *et al.*, 2002). The market offers products of inferior quality, the variety of products is also rather small (Theoharakis–Hooley, 2008) and new entrants are to be expected because of the attractive growth potential, which urges companies, struggling for survival, to constantly change and engage in continuous learning; and that makes a very turbulent environment. Owing to high quality products and a wide product variety, later stages of the transition see consumer preferences stabilize and, hence, market turbulence abate (Kumar *et al.*, 2011). *Technological turbulence*
refers to the frequency of new product launches, the pace of technological development. Technological turbulence may hinder as well as stimulate businesses’ market orientation. The era of economic transition starts out with the inferior technical development level inherited from the previous regime, which requires the swift adaptation of engineering knowledge and new technologies in order to fare well in the product development race (Zhou et al., 2005). This initial period of the transition is characterized by a high level of technological turbulence. With technological standards spreading and technical progress slowing down, technological turbulence is expected to tone down later on in the transformation process (Covin–Slevin, 1989). The intensity of competition is measured by the degree of competition within the industry. Early on in the transition, markets undergo constant and continuous changes due to the ongoing formation of consumers’ needs and preferences, and to new actors entering the market all the time; that is, companies are faced with intensifying competition (Zhou et al., 2005). Later, with the markets having switched to a normal growth path, firms select their core markets and focus their marketing efforts on those, which brings about the stabilization of the power configuration and the normalization of competitive conditions (Kumar et al., 2011). Thus the later stages of the transition are characterized by less intense competition. The above considerations lead to the following hypotheses:

**H2a:** In the early ($T_1$) and the more advanced ($T_2$) stages of the transition, companies increase the degree of their market orientation with growing market turbulence, which results in improving (a) market and (b) financial performance.

**H2b:** The moderating effect of market turbulence on the relationship between market orientation and performance diminishes with the progress of the transition from its early stages towards its more advanced stages.
**H3a:** In the early ($T_1$) and the more advanced ($T_2$) stages of the transition, companies increase the degree of their market orientation with growing technological turbulence, which results in improving (a) market and (b) financial performance.

**H3b:** The moderating effect of technological turbulence on the relationship between market orientation and performance diminishes with the progress of the transition from its early stages towards its more advanced stages.

**H4a:** In the early ($T_1$) and the more advanced ($T_2$) stages of the transition, companies increase the degree of their market orientation with intensifying competition, which results in improving (a) market and (b) financial performance.

**H4b:** The moderating effect of the intensity of competition on the relationship between market orientation and performance diminishes with the progress of the transition from its early stages towards its more advanced stages.

---

1.3. Hypotheses H5a-b – Systems Approach

In assessing the effect of market orientation on sustainable competitive advantage, I rely on the systems approach. According to the systems approach, in order to develop a better understanding of the relations between context, structure and performance, one needs to examine these factors simultaneously, so as to appreciate the nature of appropriate organizational adaptation (Miller, 1981; Van de Ven–Drazin, 1995). The systems approach suggests that the key to above-average performance resides in the internal consistency of the structural characteristics of the organizations that are successful in adapting to the environmental conditions. (Khandwalla, 1975). From a systems point of view, alignment is the emergence of a
configuration of structural and process characteristics that matches the environmental conditions and is internally consistent.

In the early stages of the transition, a significant portion of most companies’ resources is used up in creating the operating conditions, so the capacity that remains for developing consistent, growth-oriented strategies or for conquering individual target markets is likely to be rather small. The firms that do not only make sure their basic operating conditions (like reorganization, establishing partnerships, defining market position etc.) are met, but also manage to develop capabilities that facilitate a better understanding of the markets and the introduction to the market of competitive products/services may well be able to gain a competitive advantage over rival businesses. This behavior is what the literature calls market orientation. As a result of the gathering and organization-wide dissemination of, and responsiveness to intelligence on consumers, competitors and the broad operating environment, a market-oriented organization can be regarded as a learning organization, which drives its employees to keep experimenting and to continuously develop the firm’s processes and systems. If it is a philosophy, a way of thinking and a system of norms along these lines that permeate the entire organization, that acts to generate distinctive capabilities, which in turn give the company a sustainable competitive advantage. Thus in the early stages of the transition \( (T_1) \) – characterized by high levels of market turbulence and technological turbulence, and intense competition – sustainable competitive advantage stems from companies allocating their strategic resources according to the changing market conditions or configuring and re-configuring their asset portfolio to be able to meet the challenges of the market.

By the later stages of the transition \( (T_2) \) – demonstrating lesser degrees of market turbulence, technological turbulence and competition –, more companies will
have learnt (copied the industry best practice) a market-oriented way of thinking. Firms try to follow the practices of successful companies in developing their own structure and processes. This is driven by the changes taking place in their demand markets, customers getting accustomed to high quality, tailor-made products and services. Accordingly, the behaviors of companies (both in and across industries) towards markets are expected to converge due to their development of very similar resources and capabilities. Thus in the long run, an enormous number of firms possess the resources, capabilities, and structural and process characteristics required to achieve a high degree of market orientation, and however they configure these factors, the market-oriented asset portfolio will not give them a competitive advantage any more. So companies should not count on market orientation to give them a sustainable competitive edge in the long run. The above considerations lead to the following hypotheses:

**H5a:** Companies that adapt to changing environmental conditions outperform those competitors of theirs that do not adjust the allocation of their resources to changes in environmental conditions.

**H5b:** With the progress of the transition, more and more companies become market-oriented, and therefore market orientation does not give businesses a sustainable competitive advantage in the long run.

### 2. Applied Methodology

#### 2.1. Methodology – Selection Approach

According to the selection approach, environmental turbulence (high uncertainty) must be a significant predictor of firms’ structural and process characteristics. The effect of alignment with the environment on performance is not
implicitly included in analyses based on the selection approach, for one might
assume that the companies that adapt well will be selected over those that do not
adapt to their environment adequately. The selection approach suggests a strong
correlation between environmental factors and the structural and process
characteristics of companies.

The above relations were examined using bivariate correlation analysis. The
relationships between each environmental variable (\(tt, pt\) and \(vi\)), the structural
(\(koord1, \ koord2\) and \(koord3\)) and the process (\(fo_01, ..., fo_05\), and \(vo_01, ..., vo_04\)) characteristics comprising the market orientation scale and one business
performance measure (e.g. \(pit_01\)) were analyzed using correlation tables. Four
correlation tests were run on all samples. If a strong correlation can be detected
between environmental factors and the structural and process characteristics
comprising the market orientation scale, that infers that the operating environment
does indeed have an effect on firms’ adaptation to external conditions.

2.2. Methodology – Interaction Approach

According to the interaction approach of contingency theory, one needs to
examine the impact that context and structural characteristics have on performance
in order to understand organizations’ alignment with the external environment. The
interaction approach reflects a reductionist way of thinking, proposing that
organizations can be broken down into components and that those can be examined
one-by-one. Information extracted by analyzing these components can, in turn, be
aggregated and thus helps to develop an understanding of how organizations
operate.

It was variance analysis that I relied on in examining the interaction approach
to alignment. The relationship between the variables expressing the environment’s
effects, the structural and process characteristics comprising the market orientation scale, the interaction of these two sets of variables (as independent variables) and business performance (as the dependent variable) was analyzed using ANOVA. Before running the ANOVA tests, I dichotomized the effect of the environment and the twelve structural and process characteristics at their medians, creating low and high categories. I also examined, still prior to running the ANOVA, the outliers with respect to the variable involved in the analysis (e.g. \textit{pnt\_01}, \textit{fo\_01\_median} and \textit{tt\_median}). I employed Levene’s test to assess the equality of the standard deviations of the different groups. Based on the three environmental variables, the twelve structural and process characteristics and the four performance measures, I ran a total of 144 (3x12x4) ANOVA tests in each data collection period.

Applying the interaction approach, we get a more detailed picture of the individual effects that the characteristics of the operating environment have on companies’ structural and process characteristics, and gain insight into how the interaction of these two factors influences business performance. In order to do so, we employ reductionism, which forbids us to draw broader conclusions from the simultaneous examination of organizational structures and environmental effects. The breaking down of organizations into components does, however, give us a more elaborate picture of the more refined effects that system-level analyses tend to miss, which then again facilitates a better understanding of the relationships in the background.

2.3. \textit{Methodology – Systems Approach}

According to the systems approach, alignment in a given environmental cluster manifests itself in the adjustment to a certain ideal resource allocation pattern. A one-unit deviation from the ideal profile results in a one-unit \textit{misalignment}, which is reflected in the negative correlation with business
performance. Misalignment can be quantified as the weighted Euclidean distance from the ideal profile (the proper allocation of resources, which is in a significant relationship with business performance) as identified in the given environment. This measure represents the difference in strategy (resource allocation) observed between the best-performing companies and all the others in the same cluster. Misalignment is expressed in the form of the so-called MISSALIGN index, defined as follows:

\[
MISSALIGN = \sum_{j=1}^{n} \left( \sum_{j} \left( s_j - \bar{x}_{cj} \right)^2 \right)
\]

Thus the index quantifying the degree of misalignment can be expressed as the weighted Euclidean distance from the environment-specific ideal profile. Formula (i) is based on the alignment concept of Van de Ven and Drazin (1985) with the difference that (1) it only involves strategic variables that are significantly related to business performance and that (2) it makes a distinction with respect to the relative importance of the individual strategic factors both within and across the different environmental clusters.

In analyzing the strategic alignment of companies to environmental conditions, I proceeded along the following steps. First I identified the configurations of strategic resources that represented the optimal allocation of resources for the various environmental clusters. Accordingly, for each cluster I ran a linear regression (OLS) that involved as independent variables the twelve process and structural characteristics of the market orientation scale. The dependent variable was one of the four business performance measures. Only those strategic variables were selected to be included in the analysis that were detected to be in a significant relationship \((p<0.05)\) with the given performance measure. The second step was to select the calibration sample. For this purpose, the companies had to be arranged in order of the performance measure chosen, and then the upper ten percent had to be
selected. Yet care had to be taken not to disrupt the normal distribution of the subsample by removing the upper ten percent. Consequently, I also removed the lower ten percent. In the *third step*, I assessed the deviation from the ideal profile. Accordingly, I took the standardized means of the significant ($p<0.05$) strategic variables from the calibration sample to create the ideal profile of the best-performing companies, and then used this as a gauge in assessing the alignment to the environment – realized along a given allocation of resources – of the companies left out of the calibration sample.

3. Findings of the Thesis

3.1. Findings of the Thesis – Selection Approach

According to the selection approach, companies reach a state of equilibrium with their environment if they manage to adequately adapt to external conditions. Adaptation means that the uncertainty experienced in the environment gets mirrored in companies’ process and structural characteristics. I analyzed the effect of context on corporate behavior using correlation analysis in order to reveal the relations between the variables expressing the environment’s effect and the structural and process characteristics associated with market orientation behavior.

- The results show that the effect of technological turbulence on companies’ market orientation is getting stronger, which indicates that keeping pace with technological advancement is an inherent part of the strategy aimed at increasing customer value creation.

- As regards the long-term effect of market turbulence, during the early stages of the transition, when consumer needs have not yet matured and companies are still looking for their primary markets, market turbulence does not stimulate companies’
behavior to the extent it does in later stages of the transition, when one can already have a clearer picture of relative market positions.

- Concerning the effect of competition, the following conclusions can be drawn: in the early stages of the transition, companies perceive the competition in the marketplace not to be intensive, while in the later stages of the transition, as market positions stabilize, the effect of competition becomes stronger, as well, and it is constantly present across all markets and industries.

- The environment has an important role in the formation of companies’ market orientation. It is important to note, however, that the external environment only stimulates companies’ behavior (the formation of their market orientation) if they are willing to make efforts to develop and maintain capabilities to facilitate their alignment to changes in external conditions. Otherwise firms may get isolated from their environment and turn immune to external impacts, which leads to bad decisions and carries the threat of getting gradually forced out of the market.

3.2. Findings of the Thesis – Interaction Approach

According to the interaction approach of contingency theory, one needs to examine the impact that the interaction of context and structure has on performance in order to understand organizations’ alignment. This reflects a reductionist way of thinking, proposing that organizations can be broken down into components and that those can be examined one-by-one. The aggregation of information extracted by analyzing these components can, in turn, help to develop an understanding of how organizations operate. According to the interaction approach, organizational adaptation corresponds to the complexity of the environment being also mirrored in the organization’s structure. Adaptation is expressed by the interaction between the structural and process characteristics comprising the market orientation scale (which
measures businesses’ market orientation) and the appropriate environmental factor, and by the impact that these interaction pairs have on performance. Below, I will present the findings of my analyses.

- In the early stages of the transition, companies’ behavior can be described as follows. Due to consumers’ preferences being immature and highly changeable, and to the abundance of low quality products in the marketplace, one may gain a competitive edge by introducing top quality products to the market. Yet the development of new products carries a high risk, since companies have no way of knowing which products/services consumers will like, thus they are not willing to take risks with respect to product development and innovation. They want to play it safe, so they are actively monitoring every move their competitors take. They explore their strengths and weaknesses, and introduce to the market products that are very similar to or slightly modified variants of their competitors’ products.

- In later stages of the transition, identifying and meeting consumer needs becomes one of companies’ key objectives, supported by a number of structural and process characteristics. Coordination is becoming stronger, as well, which manifests itself in a more harmonized working together of the organization’s various units. Interestingly, the positive effect that the above processes and structural characteristics have on performance can only be detected under low levels of the various environmental factors. Thus even ten years after the regime change, companies appear not to be daring enough to embrace a broad interpretation of their markets and to launch a broad offensive to conquer the market, so as to lay the cornerstone of their future success by following more aggressive growth objectives. After all that time, they are still operating in relatively narrow, well-defined markets that they have already got to know and understand to a sufficient extent.
3.3. Findings of the Thesis – Systems Approach

- In the early stages of the economic transition, the way for successful companies to stand out from the crowd is to devote their resources to developing products/services that help meet consumers’ needs, and to actively monitor the actions of their competitors. Companies that fail to sufficiently support the aforementioned processes will lag behind their competitors in terms of both market and financial performance measures.

- In later stages of the regime change, the majority of businesses introduce processes and re-structure themselves so as to enable the organization to understand the operation of consumer needs and markets and, hence, deliver high quality products/services. The spreading of this type of behavior does not guarantee above-average performance, since the majority of companies systematically monitor their competitors every move, as well as any changes in consumer preferences and in the broad operating environment, and develop/modify their products/services so that they continue to deliver high customer satisfaction.

- The best-performing companies do not stand out in terms of market-orientation related structural and process characteristics when compared to firms that lag somewhat behind with respect to market and financial performance measures. Adaptation to external conditions results in an ideal allocation of resources, which ensures that companies perform above the average and that they align to a sufficient degree with any changes in environmental conditions.

- The results indicate that in the early stages of the transition, companies monitor the actions of their competitors and attach importance to developing products/services that meet consumers’ needs, but these processes fail to take a sufficiently organized form; still, companies operating along these lines already have
a performance edge over the others. In later stages of the transition, companies’
behavior is becoming more and more like that of market-oriented companies, the
previously separate processes are now run in a more organized fashion, which
results in above-average performance. Progressing even further in the transition,
market orientation becomes a widespread phenomenon, which leads to high quality
products/services becoming the standard, resulting in sinking returns.

4. References

Akimova, I. (2000): Development of market orientation and competitiveness of

Arndt, J. (1981): The political economy of marketing systems: reviving the

Management*, 17 (1), 99-120.

Bathgate, I., Omar, M., Nwankwo, S., Zhang, Y. (2006): Transition to a market
orientation in China: preliminary evidence. *Marketing Intelligence and Planning*,
24 (4), 332-346.

Hall Englewood Cliffs.

between market orientation and business performance: evidence from five

Covin, J.G., Slevin, D.P. (1989): Strategic management of small firms in hostile and

Marketing*, 58 (4), 37-52.


Nagy, G. (2011): Dynamic Strategic Adaptation of Hungarian Firms to the Changing Competitive Environment during the last Twenty Years of Economic Transition in Central Europe: A Conceptual Approach. 7th International Bata Conference for PhD Students and Young Researchers, May, Zlin