RESEARCHING THE DYNAMICS OF MILES AND SNOW'S STRATEGIC TYPOLOGY

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The research conducted on medium and large companies in the Croatian food and beverage industry confirms the presence of all four strategic types originally set by R.E. Miles and C.C. Snow. The strategic orientation of a company is determined through three periods (past, present, future), identifying also the dominant, holistic strategic type. A questionnaire designed by Conant et al. (1990) is used to reveal company's strategic type. The classification power of the questionnaire is further increased by introducing a quasi-numerical measure. The industry is dominated by the defender (34%) and analyzer (27%) strategic types of the holistic company behavior. The theoretically assumed (dominant) stability of strategic orientation of a company is confirmed with a high proportion of strategic change (44%). The dominant source of strategic change comes from companies applying the defender strategic orientation, while the dominant destination of strategic change is the analyzer strategic type. Within the companies that change their strategic orientation over the three periods, specific forms of strategic changes as well as the share of their presence have been identified.

1. INTRODUCTION

In strategic management there are numerous studies focused on identifying and understanding the level of strategy, i.e. strategic orientation of companies in various industries (Moore, 2005). Strategy researchers focused on various ways in which a company adapts to its environment by studying the relations between organizational environment, strategic process, strategic content, organizational performances, and many other variables.

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Although company strategies are very distinctive categories, the researchers sought to explain company business strategies by creating their typology, with the aim of grouping similar characteristics of organizational behavior of different companies under a common denominator. Different strategic typologies typically have a foothold in the theory of industrial organization and the resource theory, depending on the source of competitive advantage. There are numerous and different approaches, such as the studies on strategic groups by Murray et al. (2002), Caves and Porter (1977) and Harrigan (1985), those on generic competitive strategies by Porter (1980/1995, 1985/1998) and those on organizational configuration by Child (1972).

However, strategic typologies are conceptually (not empirically) derived classifications of companies, which are commonly based on researcher's experience in a limited number of industries. Numerous studies conducted in various industries aim to empirically test the validity and usefulness of different strategic typologies.

2. MILES AND SNOW'S STRATEGIC TYPES

One of the key premises of literature that investigates the area of strategy[1] is that the strategy should align business performance with the environment in which the entity operates. In other words, the most successful organizations also have the most efficient interaction with their environment. Thus, the strategy acts as a kind of an adaptive mechanism.

Miles and Snow's main research interest, presented in their book *Organizational Strategy, Structure, and Process* (1978), is *why and to what extent organizations within the same industry differ in their strategies, structures and processes*. It is elaborated on empirical findings derived from four industries[2]. The authors study the interdependence of various organizational attributes, such as structure, strategic planning, market penetration, management processes and power of distribution within different types of strategic behaviors and determine the differences in the methods and intensity of their application.

At the same time, organizational success rests on the quality of adaptation that management needs to achieve for some key variables, such as organizational domains of manufacturing markets, technologies servicing the

[1] As emphasized by industrial organization scholars.
[2] Publishers of higher education textbooks, electronics, food processing industry and health.

specified domain and organizational structures and processes developed for the purpose of coordinating and controlling specific technologies, which is an *extremely difficult task considering the fact that environment is constantly changing* (Miles and Snow, 1978).

The authors believe that companies develop their adaptive strategies based on their own perception of the environment in which they compete. Given that different organizational types have a different perception of their environment, they also apply different strategies. These adaptive strategies allow individual organizations to be more adaptable or sensitive to their environment than others, and different organizational types present a range of adaptability to the environment. The authors point out that organizations develop relatively permanent patterns of strategic behavior in order to achieve compatibility of organizations and environment, and strategic types are determined by the level of adaptation to the competitive environment. The *compatibility* of the organization and environment is referred to as the process of adaptive choice (Child's strategic choice[3]), i.e. adaptive cycle (Miles and Snow, 1978).

There are three key strategic issues of adaptive cycles (Figure 1), which the authors refer to as *problems of a complex and dynamic process of strategic choice*.

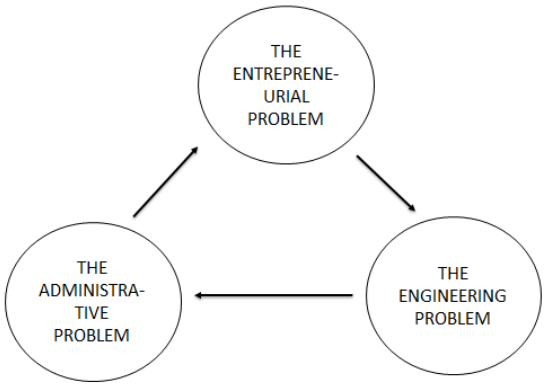

Figure 1. Adaptive cycle by R.E. Miles and C.C. Snow

Source: Miles and Snow (2003, p. 24).

[3] Miles and Snow (1978) suggest several important features of approach to *strategic choice*, such as: (1) *Dominant adaptation*, (2) *Perception* (3) *Segmentation*, (4) *Scanning*; (5) *Dynamic constraints*.

The following three problems typically occur, more or less simultaneously, in developed organizations: (1) *Entrepreneurial problem,* whose solution depends on accepting specific product-market domains by the management; (2) *Engineering problem,* that involves developing a system that implements management solutions to the entrepreneurial problem and is solved by selecting appropriate technology for the production and distribution of the given products or services, (3) *Administrative problem,* that is solved by rationalizing and stabilizing the activities that successfully solve those problems that the organization is faced with in the entrepreneurial and engineering phases.

Looking at the strategy as a *set of decisions through which strategic business units coordinate their managerial processes with the environment* (Desarbo et al., 2004), Miles and Snow (1978) put forward four configurations of company strategic behavior as answers to the problems of the adaptive cycle. The classification of companies is carried out according to the *key strategic dimensions* as the extent to which the company is trying to introduce changes in its products, markets (or both), i.e. according to the *way in which organizations are trying to create their environment* (i.e. "align" themselves with the environment) *through a series of decisions related to markets, products, technologies, level of operation and others* (Parnell et al., 2000).

(1) *Defender* type achieves competitive advantage by becoming more successful in existing markets with existing products, with the lowest level of uncertainty compared to other strategic types. The company maintains internal focus by concentrating on a narrowly defined product-market domain with a corresponding loss of adaptability to changes in the environment. (2) *Prospector* type achieves competitive advantage by company entering markets with new products, by being innovative and by quickly embracing new technologies. The company maintains external focus on constantly adapting to market changes, but with a possible significant loss in operational efficiency. (3) *Analyzer* type is a strategic combination of the first two types. (4) *Reactor* type does not achieve a competitive advantage due to the lack of a clear and concise connection between structure and strategy[4].

[4] In their first mention of strategic types (1974) along with Pfeffer, Miles and Snow are influenced by the professional characteristics of top managers from 16 publishing houses when trying to categorize managerial perceptions of the environment and describe how these perceptions are transformed into responses to the challenges of the environment. The names of identified strategic types are each enriched with an adjective. Therefore they have: (1) *domain defender*; (2) *reluctant reactor*; (3) *anxious analyzer,* and (4) *enthusiastic prospector.*

Miles and Snow strategic typology is unique because it looks at an organization as a complete and integrated system in a dynamic interaction with its environment, which Hambrick (1983) once called *the most permanent available strategic classification tool*. Many authors emphasize the relevance of Miles and Snow's typology, describing it as an *integrated idea of other schools of strategic management* (Mintzberg et al., 1998) *that can measure the strategy in a way that is suitable for a variety of businesses and industries* (Shortell and Zajac, 1990), making it thus *one of the most notable strategic typologies* (Miller, 1996).

Miles and Snow typology is *one of the most frequently empirically proven strategic classifications* (Peng et al., 2004), thanks to its *elegance and the integrated contingency concept*, *ease of operationalization*, i.e. *consistency in the application* (Murray et al., 2002), with a foothold in *reasonable accuracy in the conceptualization of the strategic behavior of companies* as one of its main strengths (Namiki, 1989). Its usefulness has been demonstrated by numerous studies confirming the basic assumptions of the proposed model in the areas of strategic management and strategic marketing (Snow and Hrebiniak, 1980; Hambrick, 1983, 1984; McDaniel and Kolari, 1987; McKeee et al., 1989; Shortell and Zajac, 1990; Conant et al., 1990; Zahra and Pearce, 1990; Webster, 1992; James and Hatten, 1995; Evans and Green, 2000; Moore, 2005; Andrews et al., 2006; Slater et al., 2006; Pleshko and Nickerson, 2008; Shannan et al., 2010).

3. CONTEMPORARY NEED FOR STRATEGIC CHANGE

Strategic orientation of a company is, by definition, a relatively stable category. It can be defined as a continuous"holistic pattern" or "archetype" of organizational behavior which is, as a function of ideas, beliefs and values, embodied in the organizational structures and systems (Greenwood and Hinings, 1988,1993). However, in the turbulent modern industrial environment, the question arises whether strategic orientation is also a static category?

The theoreticians of the 1960s and 1970s[5] considered the changes to be resulting from change in the organizational strategy. In the late 1970s and throughout the 1980s a change of perspective happened whereby for authors such as Miles and Snow, Mintzberg and Quinn's strategy stems from the multiple changes an organization makes in the course of time. Later authors cite examples of companies in which they notice that the strategy results from

[5] E.g. Igor Ansoff ("Corporate Strategy", 1965).

company's long-term vision of the future[6], and recent research suggests a dynamically different impact of industrial environment on companies (Dulčić et al., 2012).

Miles and Snow's model suggests that each organization has a dominant feature which is the result of actions undertaken by the key decision-makers and their perception of the operational environment and which determines whether a company will be proactive or reactive. According to Miles and Snow, the organizations will, in the course of time, develop a particular internal consistency, trying to perpetuate their strategies. On the positive side, this means that the organization has a tested, well-developed set of mechanisms to respond to its environment. However, from the negative point of view, this means that the organization finds it difficult to accept the need for or lacks the ability to implement strategic changes (Hambrick, 1983). If this is the case, the strategic response to the environment will require the ability of management to recognize hints of changes in the environment in due time and, if necessary, to initiate the process of temporary or permanent change in the pattern of strategic behavior of their company. Therefore, a contemporary managerial challenge is to design a strategic orientation that is both flexible and effective.

Modern researchers have undoubtedly recognized a great usefulness of Miles and Snow's strategic typology which results precisely from the requirements of the *increasing dynamism, complexity and unpredictability of the environment* a modern manager has to face (Hitt et al., 2001). At the same time, the relative static nature of the Miles and Snow typology has been criticized for the lack of possibility of predicting the transformation of the company from one organizational type to another (Murray et al., 2002).

Shortell et al. (1996) assume that changes will take place in the course of time, where some transitions will be made easily, such as the transition from prospector into analyzer organizational type, and some with considerable more difficulty, such as the defender into prospector type of company. Empirical validation of the stability of strategic orientation, however, shows different findings[7].

[6] E.g. example of Japanese companies (Hamel and Prahalad, 1989).
[7] While Fox-Wolfgramm et al. (1998) when observing a seven-year long pattern of behaviour of banks find the change of strategic orientation atypical even in the face of significant changes in the environment, Akinbola (2006) establishes a high degree of strategic change in non-profit organizations in the five-year observation period.

This suggests the need for a deeper understanding of the existence and extent of strategic changes. A relatively small number of empirical verifications of the dynamics of strategic typology (e.g. Akingbola, 2006; Naranjo-Gil, 2004; Fox-Wolfgramm et al., 1998) put forward by the two authors leave plenty of room for confirming these hypotheses.

Conceptual derivation of Miles and Snow strategic typology, lack of a proposal for operational classification of companies into various strategic types, lack of quantitative grounding for the model, limited number of industries presented as empirical evidence, along with the static nature of company's strategic orientation in the modern, highly dynamic industrial environment, indicate a need for further empirical verification of the validity of the original theoretical construct.

4. RESEARCH METHODOLOGY

Croatian food and beverage industry is above average when it comes to industry dynamism[8]. Medium and large companies have been used as a testing ground for the research. These make up a significant portion of the total processing industry[9]. Accounting for 83.6%[10] of total revenues of the food and beverage industry, medium and large companies ensure the homogenization of the sample and qualify for the group of key drivers of events in the concerned industry, allowing for the generalization of conclusions. At the same time, numerous previous empirical findings point to the relevance of medium and large companies in defining the sample in the study of various phenomena within industrial structure (Claver et al. 2003; Kambhampati, 1996; Powell, 1996; Morgan et al., 2003).

With the aim of empirically validating the existence and dynamism of the strategic orientation of companies in the industrial environment of Croatian food and beverage medium and large companies, it is necessary to select the optimal instrument for defining the strategic orientation of the company and allow its monitoring in different time periods. Given a small number of research

[8] Change in the number of companies in Croatian food and beverage industry is much higher (+7.3%) than the change in the number of companies within the entire processing industry (+3.2%), or the change within the entire Croatian economy (+5.7%). In the same time, share of cumulated medium and large companies within total food and beverage industry declined from 15% (2002) to 8% (2007). Source: Croatian Chamber of Commerce (Information Centre), data for period 2002-2007.

[9] Share in the manufacturing industry GDP was 20.2%, while in the total national GDP it accounted for 3.2% (in 2007). Source: http://www.dzs.hr.

[10] Croatian Chamber of Commerce, Information centre. Data from 2007.

practices related to the researched topic, three methodological problems were anticipated, along with the solutions.

Problem 1: *Determining empirically validated determinants of company classification into one of the strategic types by R. E. Miles and C. C. Snow.*

There are two dominant ways most commonly adopted in the empirical approach to solving the above problem[11]: (1) *Self-typing* of companies into one of the four types of strategic orientation according to the textual description of each type[12] (e.g. Morgan et al., 2003; Cunningham, 2002; Slater and Olson, 2000; Shortell and Zajac, 1990; McDaniel and Kolari, 1987) or (2) *Multiple measurers* that include examining different dimensions used to assign the dominant type of strategic orientation to a company (e.g. Andrews et al., 2006; Moore, 2005; Desarbo et al., 2004; Evans and Green, 2000; Segev, 1989; Conant et al., 1990; Dyer and Song, 1997). Based on the detailed examination of all three problems of adaptive cycle, multiple (more recent) empirical validation (Bednall and Valos, 2005; Desarbo et al., 2004; Parnell et al. 2000; Dyer and Song, 1997; Parnell and Wright, 1993) and wide applicability, the solution to Problem 1 lies in using the questionnaire that examines 11 different dimensions of the adaptive cycle designed by Conant et al. (1990). The authors presented the questionnaire in their empirical research which aimed to: (1) operationalize the Miles and Snow strategic typology by using multiple measurers and (2) illustrate the role of the proposed measurement scale for identifying relatively "pure" types of strategic orientation, as well as to examine the relations between them. Although the authors themselves also used the method of self-typing in their initial research, the success of this and subsequent empirical researches of distinguishing features of different strategic types conducted by using the measurement scale, have justified its independent use.

Problem 2: Lack of quantitative grounding of the model[13], i.e. increase of classification power of the examined dimensions of the adaptive cycle.

[11] There are two more: (1) judgment of researchers (e.g. Walker and Rukeret 1987, Fox-Wolfgramm et al., 1998) and (2) a combination of self-classification and multiple measuring scale (eg. Mavondo, 2000; Conant et al., 1990; Woodside et al., 1999).
[12] These are typically based on the one that was first developed and applied by Snow and Hrebiniak (1980).
[13] Established multiple times in empirical research, for example: Hambrick (1983) and Desarbo et al. (2004).

Multiple measurement scale, proposed by Conant et al. (1990), classifies companies according to the largest number of responses that correspond to a specific type of company strategic orientation. The questions in the original questionnaire are of nominal type. The questionnaire tests 11 dimensions of the adaptive cycle, where for each there are four different, mutually exclusive responses (each response is matched with one type of strategic orientation). Given a relatively small number of questions involved (11) against the four possible types of strategic orientation, it can be assumed that there will be such cases where companies will choose an equal number of questions which can classify them into two (or more) types of strategic orientation at the same time. With the aim of significantly reducing the possibilities of non-exclusive classification of companies into the given strategic types, a seven-point Likert scale, for expressing agreement with the statements for all 11 examined dimensions of the adaptive cycle, was introduced. This significantly increases the classification potential of Conant et al.'s questionnaire, considering the fact that the total number of points resulting from answering all questions in the questionnaire increased from (the original) 11 to (custom) 77.

Problem 3: Dynamizing the pattern of strategic behavior.

By dynamizing company strategic orientation, the criticism regarding static nature of Miles and Snow strategic typology has been accepted. The problem is solved by parallel measuring company's average strategic orientation in three different time periods: the past (last 3 years), present (1 year), and future (next 3 years)[14]. The results of the dynamics of company strategic orientation will enable determining not only the levels and types of changes in strategic orientation for each type of strategic behavior, but also the holistic (dominant) strategic orientation of the company over a longer period of time.

Solutions to the described problems have helped to create a questionnaire which overcomes these methodological problems, with the aim of adapting the measurement of company strategic orientation to modern, dynamic industry environment. The questionnaire was sent twice[15] to top managers of all 106 active companies representing the universe of Croatian medium and large food

[14] The total period corresponds in length to previous studies of dynamics of strategic orientation like, for example, Fox-Wolfgramm et al. (1998), which measures the stability of strategic orientation of banks in the seven-year period.
[15] First in the preliminary study with the aim of validating the research instrument and then in the final round of research.

and beverage companies[16]. In the preliminary survey 17 correctly filled questionnaires were collected, having a high response rate of 70.8%. In the final round of survey, 29 questionnaires returned with the response rate of 32.6%, out of which 24 were correctly filled. The overall response rate was 43.4%[17].

The final sample structure consists of 15 large and 26 medium-sized companies, making € 14Bn revenues and having 14,121 employees. The relevance of the selected sample is evident from its highly important position in the universe of medium and large companies of the Croatian food and beverage industry. It represents 38.7% of all companies, 38.2% of revenues, and 40.1% of employees[18]. In the same time, on the level of total Croatian processing industry it represents 6.3% of revenues and 5.2% of employees.

5. RESULTS

The companies included in the sample are classified into strategic types according to the dominant strategic orientation through different time periods observed, using the following criteria: (1) the frequency of responses that describe a specific type of strategic orientation and (2) the maximum aggregate value of quasi-numerical variables that describe a specific type of strategic orientation. Using the above criteria, all companies in the sample were successfully classified in different types of strategic orientation. Analysis and interpretation of the obtained data was carried out by analyzing and interpreting (1) strategic orientation of a company at the level of individual time period and (2) dominant (holistic) types of company strategic orientation as a pattern of behavior through all three time periods[19].

The intensity of agreement with statements that define a particular type of strategic orientation, as measured by the scale of 1 to 7, was analyzed by

[16] Those categorized in medium and large companies in accordance with the provisions of Article 3 of the Accounting Law.
[17] Including five incorrectly filled questionnaires. 24 companies (27% of population) returned valid questionnaires in the final round of the surveys, which, together with the companies that participate in the preliminary study, also with valid questionnaires, gives a total of 41 companies in the sample (38.7 % of population).
[18] Sources: (1) Register of Croatian Chamber of Commerce Business Entities (only active companies were included), December 17th 2008; (2) Business Croatia, data for 2007.
[19] Dominant (holistic) type of strategic orientation is defined on the basis of three criteria: (1) domination of a specific type of strategic orientation across three time periods (the same type is repeated in at least 2 periods), (2) the overall frequency of responses that describe a specific type of strategic orientation across all three time periods, (3) the sum of the values of responses that describe a specific type of strategic orientation across all three time periods.

dividing them into three categories: (1) high (6 - 7); (2) medium (3 - 5) and (3) low (1 - 2). The determined levels of cumulative high and medium intensity of agreement with the statements range from a minimum of 83% to a maximum of 98%. Thus, it can be concluded that relatively "clean" strategic types have been found, across all the observed time periods (Table 1).

Table 1. The intensity of agreement with the statements that define different strategic types

Intensity of agreement	PROSPECTOR			ANALYZER			DEFENDER			REACTOR		
	Past	Present	Future	Past	Present	Future	Past	Present	Future	Past	Present	Future
High (6,7)	4	10	21	10	15	24	11	18	22	10	15	24
Medium (3,4,5)	31	28	19	24	21	15	28	21	15	29	22	12
High + Medium	*35*	*38*	*40*	*34*	*36*	*39*	*39*	*39*	*37*	*39*	*37*	*36*
Low (1,2)	6	3	1	7	5	2	2	2	4	2	4	5
Total	41	41	41	41	41	41	41	41	41	41	41	41
High (6,7) – in %	9.8	24.4	51.2	24.4	36.6	58.5	26.8	43.9	53.7	24.4	36.6	58.5
Medium (3,4,5) – in %	75.6	68.3	46.3	58.5	51.2	36.6	68.3	51.2	36.6	70.7	53.7	29.3
High + Medium – in %	*85*	*93*	*98*	*83*	*88*	*95*	*95*	*95*	*90*	*95*	*90*	*88*
Low (1,2) – in %	14.6	7.3	2.4	17.1	12.2	4.9	4.9	4.9	9.8	4.9	9.8	12.2
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Both per individual time unit as well as dynamically for all 3 time periods, the relevant level of intensity of agreement was detected for all three problems of the adaptive cycle (entrepreneurial, administrative, engineering), ensuring the adequacy of some future conclusions about the level of differential types of strategic orientation, in terms of all dimensions that determine them (Figure 2).

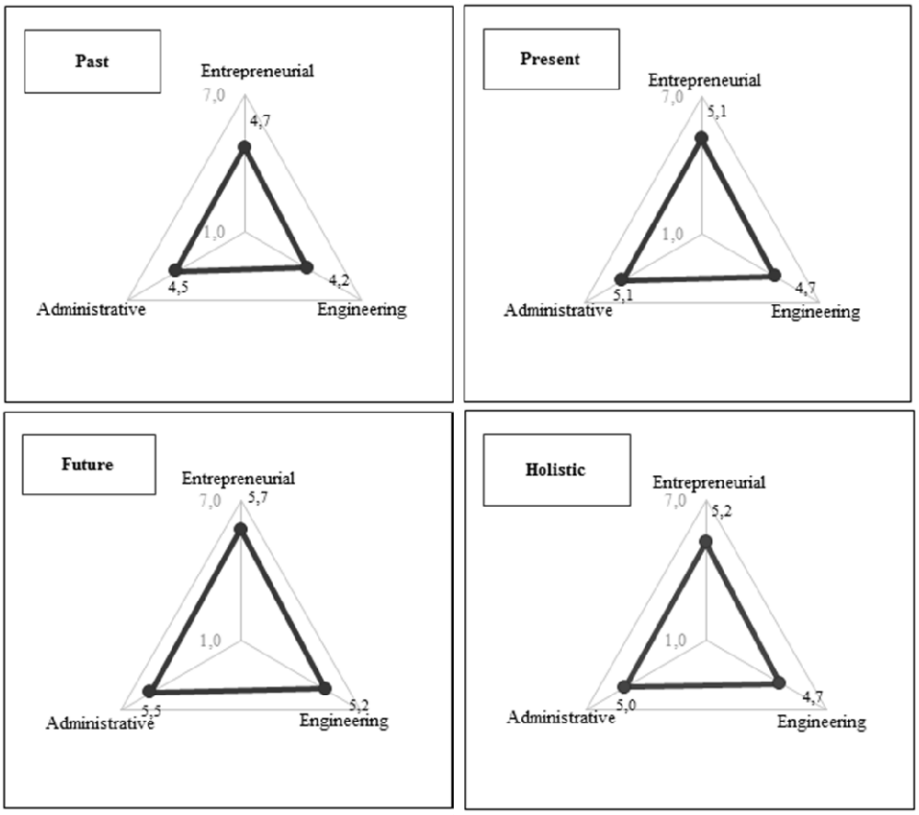

Figure 2. Intensity of agreement with the statements that define the problems of the adaptive cycle

Table 2 shows the distribution of different types of strategic orientation in which the sample companies are classified. It is evident that in the Croatian food and beverage industry there is a significant presence of all types of strategic orientation in all the observed periods. This can be explained by the dynamism and volatility of this industry. Consequently, this imposes an assumption that it was the specific effects of structural factors of the Croatian food and beverage industry that influenced the diversity in which company strategic orientations were manifested.

It is evident that the past period is dominated by the defender type of company strategic orientation. The other three types (prospector, analyzer, and reactor) achieved an almost even distribution. In the other two periods (present

and future) the distribution of all four types of strategic orientations is more balanced than it was the case in the first period (with the prospector type having the lowest share in the present period (15%), and the analyzer type having the biggest share in the future period (32%).

Table 2. Shares of different strategic types

Strategic type	Past		Present		Future		Holistic	
	N	%	N	%	N	%	N	%
P	7	17.1%	6	14.6%	9	22.0%	7	17.1%
A	8	19.5%	12	29.3%	13	31.7%	11	26.8%
D	18	43.9%	11	26.8%	10	24.4%	14	34.1%
R	8	19.5%	12	29.3%	9	22.0%	9	22.0%
Total	**41**	**100%**	**41**	**100%**	**41**	**100%**	**41**	**100%**

*P=Prospector; A=Analyzer; D=Defender; R=Reactor

The analysis of the dominant (holistic) pattern of company strategic behavior at the level of Croatian food and beverage industry allows the following conclusions to be drawn: (1) the defender type of company strategic orientation prevails in the long term[20]; (2) the smallest number of companies applies the prospector type of orientation[21]; (3) a total of 78% of companies predominantly applies one of the theoretically more successful types of strategic orientation (prospector / analyzer / defender) .

The established changes in the percentage of particular types of company strategic orientation in different time periods indicate that the company strategic orientation is evidently a (relatively) stable category. The answer to the question "to what extent and in what periods the Croatian food and beverage companies change their strategic orientation?" results from the analysis of Table 3.

The Miles and Snow's claim about the strategic orientation as a consistent category has undoubtedly been confirmed. However, the attribute *dominant* has to be added to the term "consistent category". The stability of a company's strategic orientations results from a high (at least two thirds) share of companies that have not changed the dominant form of strategic behavior in the two comparative periods. In 66 % of companies the shift from past to present period

[20] In accordance with the findings of Pleshko and Nickerson (2008).
[21] Ibidem.

is observed, 78 % of companies do not intend to change the current strategic pattern in the future period, while 63% of companies in the future period intend to implement the identical strategic orientation they used in the past period.

Table 3. Change of strategic type in two comparative periods

	From *Past* to *Present*		From *Present* to *Future*		From *Past* to *Future*	
	n	**%**	**n**	**%**	**n**	**%**
Unchanged	**27**	**66%**	**32**	**78%**	**26**	**63%**
P	4	10%	6	15%	5	12%
A	5	12%	10	24%	6	15%
D	11	27%	8	20%	9	22%
R	7	17%	8	20%	6	15%
Changed	**14**	**34%**	**9**	**22%**	**15**	**37%**
from P	3	7%	0	0%	2	5%
from A	3	7%	2	5%	2	5%
from D	7	17%	3	7%	9	22%
from R	1	2%	4	10%	2	5%
to P	2	5%	3	7%	4	10%
to A	7	17%	3	7%	7	17%
to D	0	0%	2	5%	1	2%
to R	5	12%	1	2%	3	7%
Total	**41**	**100%**	**41**	**100%**	**41**	**100%**

*P=Prospector; A=Analyzer; D=Defender; R=Reactor

On the other hand, a significant change in the company strategic orientation through different time periods has been noticed. Adapting the strategic pattern to the environmental conditions in the long term has been noticed in 34% of the sample of Croatian food and beverage companies in terms of changes in the strategic orientation in the present period compared to the past, 22% of companies intend to change their strategic orientation in the future period, and 37% the companies plan to implement a different strategic orientation relative to that in the past period.

Tables 4 and 5, as well as Figures 3 and 4, make it possible to determine which type of strategic orientation was more subject to change, and which is the most consistent one.

Table 4. Destination of dynamic changes in the strategic orientation

	From *Past* to *Present*		From *Present* to *Future*		From *Past* to *Future*	
	N	**%**	**N**	**%**	**N**	**%**
Unchanged	**27**	**66%**	**32**	**78%**	**26**	**63%**
P	4	10%	6	15%	5	12%
A	5	12%	10	24%	6	15%
D	11	27%	8	20%	9	22%
R	7	17%	8	20%	6	15%
Changed	**14**	**34%**	**9**	**22%**	**15**	**37%**
to P from A	0	0%	1	2%	0	0%
to P from D	2	5%	1	2%	4	10%
to P from R	0	0%	1	2%	0	0%
Total to P	***2***	***5%***	***3***	***7%***	***4***	***10%***
to A from P	3	7%	0	0%	2	5%
to A from D	3	7%	1	2%	4	10%
to A from R	1	2%	2	5%	1	2%
Total to A	***7***	***17%***	***3***	***7%***	***7***	***17%***
to D from P	0	0%	0	0%	0	0%
to D from A	0	0%	1	2%	0	0%
to D from R	0	0%	1	2%	1	2%
Total to D	***0***	***0%***	***2***	***5%***	***1***	***2%***
to R from P	0	0%	0	0%	0	0%
to R from A	3	7%	0	0%	2	5%
to R from D	2	5%	1	2%	1	2%
Total to R	***5***	***12%***	***1***	***2%***	***3***	***7%***
Total	**41**	**100%**	**41**	**100%**	**41**	**100%**

*P=Prospector; A=Analyzer; D=Defender; R=Reactor

It is evident that the defender types of companies are the key sources of strategic change. These changes predominantly arise from abandoning in the present period the form of strategic behavior from the past period. Considering

the destination of the strategic change of defender types, it is evident that there are two types of companies: (1) those that are not aware of ways to optimize the strategic formulation, and (2) those that seek a long-term, more proactive strategic approach.

Table 5. Sources of dynamic changes in the strategic orientation

	From *Past* to *Present*		From *Present* to *Future*		From *Past* to *Future*	
	N	**%**	**N**	**%**	**N**	**%**
Unchanged	**27**	**66%**	**32**	**78%**	**26**	**63%**
P	4	10%	6	15%	5	12%
A	5	12%	10	24%	6	15%
D	11	27%	8	20%	9	22%
R	7	17%	8	20%	6	15%
Changed	**14**	**34%**	**9**	**22%**	**15**	**37%**
from P to A	3	7%	0	0%	2	5%
from P to D	0	0%	0	0%	0	0%
from P to R	0	0%	0	0%	0	0%
Total from P	***3***	***7%***	***0***	***0%***	***2***	***5%***
from A to P	0	0%	1	2%	0	0%
from A to D	0	0%	1	2%	0	0%
from A to R	3	7%	0	0%	2	5%
Total from A	***3***	***7%***	***2***	***5%***	***2***	***5%***
from D to P	2	5%	1	2%	4	10%
from D to A	3	7%	1	2%	4	10%
from D to R	2	5%	1	2%	1	2%
Total from D	***7***	***17%***	***3***	***7%***	***9***	***22%***
from R to P	0	0%	1	2%	0	0%
from R to A	1	2%	2	5%	1	2%
from R to D	0	0%	1	2%	1	2%
Total from R	***1***	***2%***	***4***	***10%***	***2***	***5%***
Total	**41**	**100%**	**41**	**100%**	**41**	**100%**

This is confirmed by types of strategic orientation into which the former defender types (evenly) shift: (1) by applying an inconsistent pattern of strategic

orientation (reactors), or, (2) using a mid-type of strategic orientation (analyzers).

It is interesting to notice that most of the companies that no longer apply a consistent pattern of behavior have evidently noticed this and are, therefore, planning to implement one of the theoretically more successful patterns of strategic behavior (reducing the number of reactors in the future period).

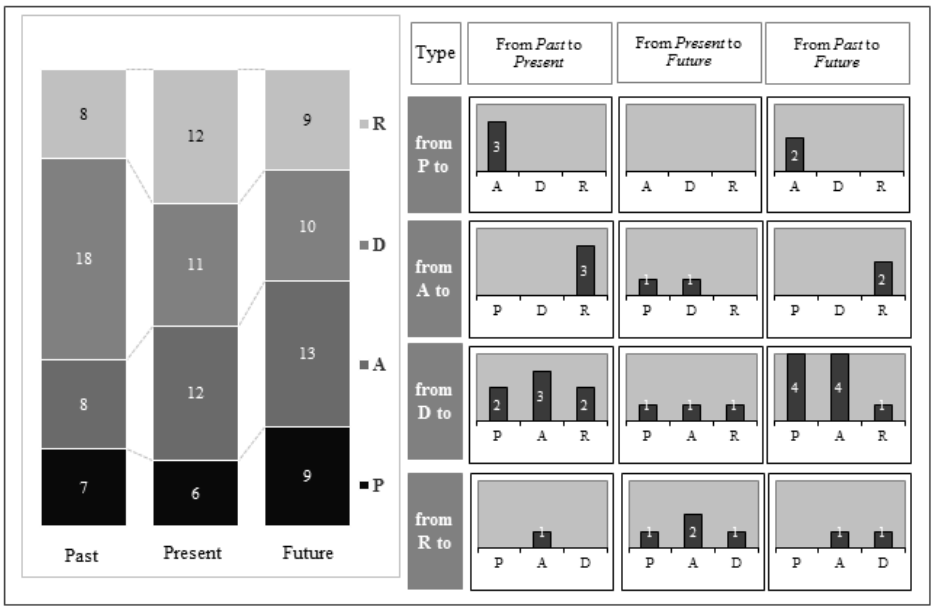

Figure 3. Destination of dynamic changes in the strategic orientation

*P=Prospector; A=Analyzer; D=Defender; R=Reactor

The key destination of strategic changes is the analyzer type of strategic orientation in the periods past and future, or prospector type of strategic orientation in the present period.

The analysis of types, i.e. sources of changes in the given periods in which the analyzers are the key change destinations clearly shows that these changes take place (almost equally) with two different objectives: (1) encouraging a more proactive strategic orientation (source: defender types), and, (2) mitigating risks of a proactive strategic approach (source: prospector types).

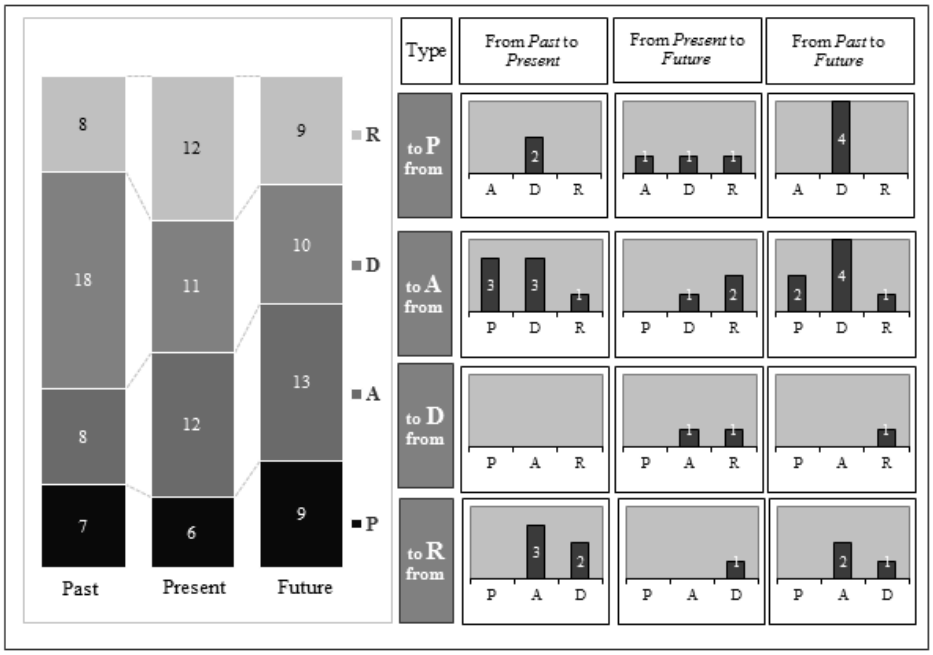

Figure 4. Sources of dynamic changes in the strategic orientation

*P=Prospector; A=Analyzer; D=Defender; R=Reactor

The finding that deviates from the theoretical assumptions about the opposite ends of the strategic continuum[22], with prospector type on one and defender type on the other side, is contained in a one-way interaction from the point of source and destination of change, precisely on the prospector-defender type relationship. The largest share of changes in the strategic orientation of defender types, across all three time periods is directed towards prospector type, as the target destination. However, the opposite relation has not been established. It is evident that some defender types of company strategic orientation in the Croatian food and beverage industry is continuously looking for changes aimed at creating a more proactive performance. This is in accordance with the dynamic industrial developments, which, obviously, do not allow all companies to consistently implement only one strategic pattern, especially not the one focused on retaining the existent market share.

[22] Numerous authors (e.g. Zahra and Pearce, 1990; Doty et al., 1993; Cunningham, 2002) suggest that the prospector and defender types are to be found on different ends of the *strategic continuum* as a kind of line on which a company's position is determined by its actions / reactions to the operating environment, or by the intensity of its strategic behaviour. Among them, there is also the analyzer type, while the reactors cannot be found on this continuum.

Let's consider what is happening in terms of changes in the strategic orientation across all three time periods. The previous analysis of changes in strategic orientation based on two comparative periods has led to the conclusion about its dominant consistency. However, the Table 5 data show that proportion of change in the company strategic orientation in Croatian food and beverage industry is significant (44%).

Table 5. Changes in strategic orientation across three time periods

		N	%	%	Share in holistic types
Stable (XXX)	**P**	4	17%	10%	17%
	A	5	22%	12%	27%
	D	8	35%	20%	34%
	R	6	26%	15%	22%
Total (A)		**23**	**100%**	**56%**	**100%**
Changing	**XYZ (Jumpers)**	2	11%	5%	
	XXY (Changers)	4	22%	10%	
	XYY (Decided)	9	50%	22%	
	XYX (Home comers)	3	17%	7%	
	Total (B)	**18**	**100%**	**44%**	
	A+B	***41***		***100%***	

*P=Prospector; A=Analyzer; D=Defender; R=Reactor

The total share of companies that have not changed the type of strategic orientation at any given time period was 56%. Within this group of companies the share of strategic types is almost the same as it is in its holistic types. The consistency of strategic orientation is, therefore, a characteristic of all types of different company strategic orientation in the Croatian food and beverage industry.

On the other hand, those companies that have, at least once, changed the pattern of dominant strategic behavior across the three time periods show the presence of all hypothetical combinations of strategic orientation change:

- XYZ ("*Jumpers*") - companies that are constantly changing their strategic orientation, trying to optimize their strategy formulation in terms of adapting to the current environmental conditions;
- XXY ("*Changers*") - companies that have realized the inadequacy of the selected pattern of strategic behavior in the course of its long-term application or they have anticipated such changes in the environment that will require its change in the immediate future;
- XYY ("*Decided*") - companies that have found an appropriate strategic orientation, after an initial application of an inadequate one, and they intend to keep it,
- XYX ("*Home comers*") - companies that changed their strategic orientation, because they were dissatisfied with the previous one, but have realized that he first applied type of strategic orientation was more appropriate than the one subsequently implemented, so they want to return to the earlier one. The reason for this "trip" to another form of strategic orientation may be explained by some specific circumstances in the environment that the company management decided to take advantage of, and then returned to its main type of operating.

It is clear that the variable types are dominated by the *"Decided"* (50%), with a high proportion of *"Changers"* (22%). The common characteristic of these types is the application of the same strategic orientation in two consecutive periods, which further stresses the consistency of strategic orientation, as well as a longer period of time necessary for its (more serious) change. It can be concluded that the strategic orientation is mainly a consistent category (56% with another 32% of variable types whose strategic orientation is identical in the two consecutive time periods), but with the expressed significant levels of long-term dynamics (44%).

5. CONCLUSION

Companies in the industrial environment do not apply the same or consistent patterns of strategic orientation. There is a significant presence of all different types of strategic orientation. Besides establishing the presence of all different patterns of company strategic orientation, it was also possible to determine the presence of all hypothetical combinations of changes in strategic orientation during three successive time periods. This indicates the volatility of the observed industry, whose dynamic movements create a "fertile ground" for various forms of strategic behavior.

Analyzing the consistency of company strategic orientation by defining it in three successive time periods, it was concluded that the strategic orientation is still predominantly a static category, which is in accordance with the original Miles and Snow's theoretical assumptions. However, it is by no means exclusively static. The research results indicate a very significant level of its dynamism in all three observed periods, slightly less pronounced in the parallel observation of two observed periods.

Strategic orientation today is not (any longer) a company's static feature which can only be changed in the long term. In accordance with the dynamic industrial activities, strategic orientation has become a flexible category of companies that react quickly to a rapidly changing industrial environment.

The implemented method of company classification in accordance with the implemented pattern of strategic orientation increases the practical (empirical) operability of the applied research instrument. Introducing quantification of statements that characterize a particular type of strategic orientation increased the classification potential of the applied tool by Conant et al. (1990), but it also offered a way of overcoming the problem of the lack of quantitative measuring of the original model. Furthermore, the analysis of the obtained quasi-numerical variables enables further sophisticated analysis, not only of the differences in the elements of the adaptive cycle between companies of differential patterns of strategic behavior, but also the possible differences within each pattern.

Further research efforts could be directed towards researching efficacy of the derived types of strategic behavior that resulted from the type of change in strategic orientation in course of time. Empirical validation of the obtained conclusions in industries with a different level of volatility could possibly indicate the presence and type of correlation of the type of industry dynamics with the type of company strategic change.

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ISTRAŽIVANJE DINAMIKE STRATEŠKE TIPOLOGIJE MILESA I SNOWA

Sažetak

Istraživanje, provedeno na srednjim i velikim poduzećima u hrvatskoj industriji hrane i pića, potvrđuje prisutnost svih četiriju strateških tipova, koje su izvorno identificirali R. E. Miles i C. C. Snow. Strateška se orijentacija poduzeća utvrđuje kroz tri perioda (prošli, sadašnji i budući), identificirajući, također, i dominantni – "holistički" strateški tip. Za utvrđivanje strateškog tipa koristi se upitnik Conanta et al (1990), čija je klasifikacijska snaga dodatno povećana uvođenjem kvazi-numeričkih mjera. U industriji dominiraju "obrambeni" (34%) i "analitički" strateški tipovi ponašanja poduzeća. Teorijski pretpostavljena (dominantna) stabilnost strateškog ponašanja poduzeća potvrđena je visokim udjelom strateških promjena (44%). Dominantan izvor strateških promjena potječe od poduzeća, koja primjenjuju "obrambenu" stratešku orijentaciju, dok promjene prevladavajuće teže prema "analitičkom" strateškom tipu.